

Let Glasgow Flourish



Hanlon, Walsh and Whyte
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Acknowledgements



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Note. Ordinance Survey maps reproduced in Figures 6.21 – 6.26 (Chapter 6):
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Let Glasgow Flourish

**A comprehensive report on health and its determinants in
Glasgow and West Central Scotland**

written by

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for the

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Chapter 1: Introduction

1.1 The Glasgow Centre for Population Health

The Glasgow Centre for Population Health (GCPH) is a research and development facility that generates insights and evidence, provokes discussion and debate, and mobilises action to improve health and tackle inequality. It provides a setting where academics, policy-makers, practitioners and local people can come together to confront problems facing population health in Glasgow and beyond. The Glasgow Centre is a collaboration between NHS Greater Glasgow, Glasgow City Council and Glasgow University supported by the Scottish Executive. Other partners also play an important role. For example, NHS Health Scotland contributed the time of two of the authors of this report.

1.2 The ‘Observatory Function’ within the GCPH

If fresh insights are to be generated into Glasgow’s health problems we need a detailed and comprehensive understanding of how health is being promoted or harmed in our city. To achieve this aim an interdisciplinary group has been assembled from a variety of organisations. This group will create and maintain a detailed description of health and its determinants in Glasgow, conduct detailed analyses of major determinants of health and develop new techniques to enhance our understanding of how routinely collected data can be used for planning and evaluation. This report is the first from the observatory group but more will follow.

1.3 Health and how it is created and destroyed

Health is a resource for living. It is not an end in itself but the lack of good health diminishes life for many. Health is multidimensional. We can recognise physical, mental, social and perhaps even spiritual dimensions to health. We are aware of poor health (concepts like disease or compromised function) as well as good health (well being and good function). It is also important to recognise subjective as well as objective measurements of health.

One way of thinking about the factors that determine health in a population is the phrase *‘it all matters’*. What this means is that health in populations emerges from a complex interplay between the physical environment, social environment, individual response and behaviour, genetic endowment and the provision of services interacting with economic and other influences from which the health status of a city emerges.

These factors interact and combine over the human life-span to create or destroy health. These influences also give rise to the patterns of inequality that are now observed. They also provide the intellectual framework that should allow us to devise strategies to improve health. It is clear, therefore, that health is a complex construct and that the determinants of health are multiple, interactive and complex, but we understand enough of this complexity to devise detailed strategies to confront the system as a whole and to target specific determinants of health.

1.4 How we use data – the strength of holistic data

A full description of how we developed our approach to public health data is provided elsewhere¹. The key idea is to reflect the description of health and how it is created and destroyed (set out briefly above) in the way data are analysed and presented. Consequently, we have tried in this report to provide data on many aspects of health and its determinants so that, taken together, they paint a picture of what is happening. Although it is possible to highlight weaknesses in each individual source of data, these individual weaknesses are rendered less important by the strength and consistency of patterns that emerge throughout this report.

For example, our understanding of the determinants of health in communities highlights the difficulty of focusing on only a small number of indicators. Community health profiles² have demonstrated that the least healthy communities fare less well on a whole spectrum of indicators. These factors are mutually reinforcing, meaning that improvement in one small area is unlikely to bring about transformative improvement in others. In fact, it appears that a significant number of determinants of health have to change in a community for the health of that community to improve significantly. The comparison, shown in Figure 1.1 overleaf, between the two postcode sectors covering Newton Mearns and Dalmarnock demonstrates this clearly. The key point is that the least healthy communities in Glasgow have concentrations of problems, not only less good health outcomes, and many (if not all) of these other factors will need to change before health outcomes significantly improve.

The example shown in Figure 1.1 has been created from data for two defined areas - in this case postcodes that overlap fairly well with Newton Mearns and Dalmarnock. In other parts of the report data will be presented for different geographies. Often this will be for local authority areas – for example, Glasgow City compared with other West of Scotland local authorities. Sometimes data will be presented for NHS Board areas or parliamentary constituencies¹. Overall, a picture will emerge of the health of people in the whole of the West of Scotland but with a central focus on Glasgow. Each Figure and Table is carefully labelled to indicate the geographic area being considered and the source of the data.

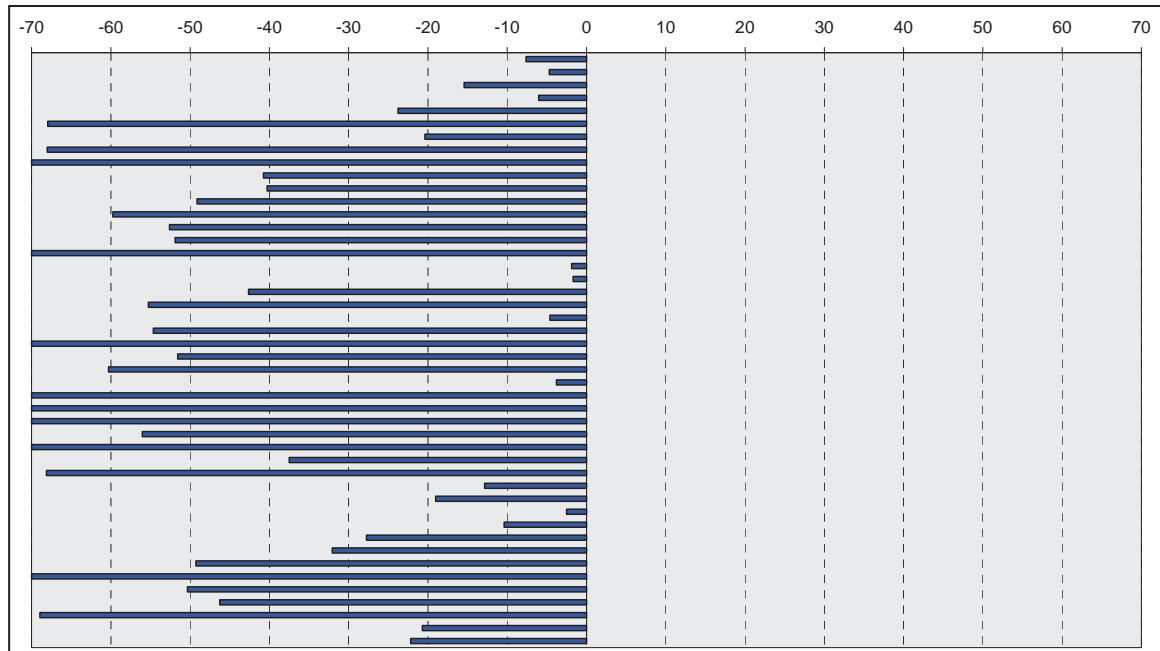
1.5 The purpose of this report

This is the most comprehensive description of health and its determinants ever created for Glasgow and the West of Scotland. Our aim is to increase understanding, provoke debate and stimulate action. The intended audience is ‘anyone in a position to influence health in Glasgow and the West of Scotland’. In a very real sense that means everyone so the report will be widely circulated and also published on the GCPH web site – www.gcph.co.uk. Copies of the report will also be disseminated to key policy makers and practitioners who work in sectors highlighted by the report. We expect that the press will cover the issues it raises too. It is vital that this report generates public debate. The result we are seeking is a ‘civic conversation’ that leads to a new consensus about what needs to be done to transform the overall health of Glasgow’s population and to effectively address existing health inequalities.

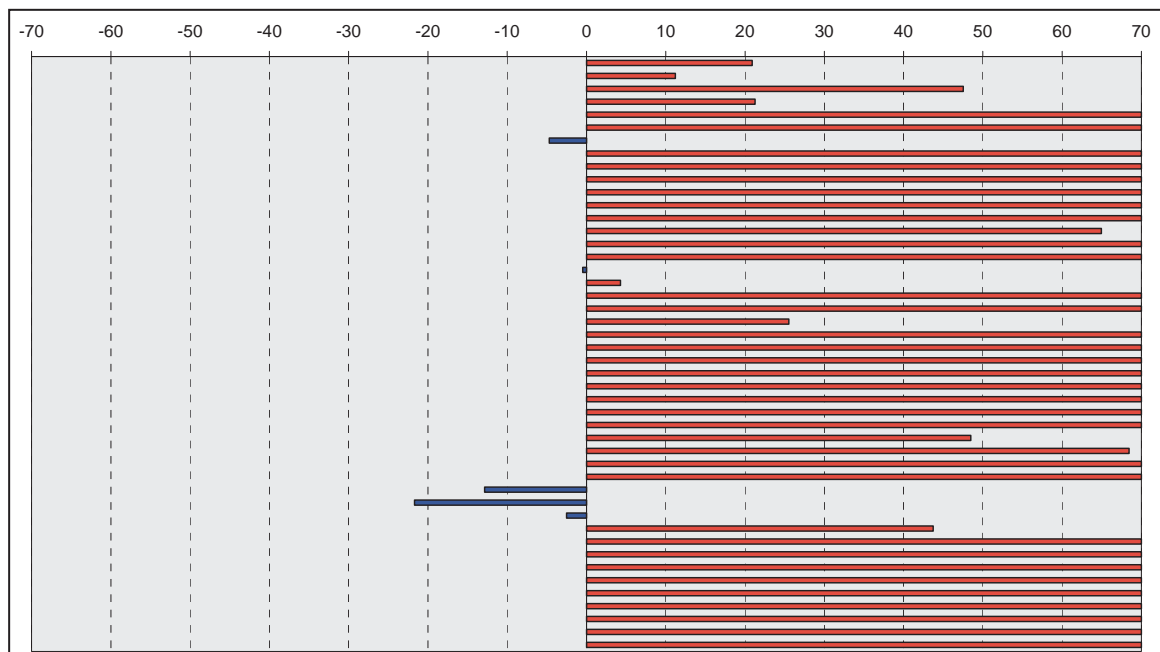
¹ The range of large and small scale geographies that have been used in the report are explained in more detail in the ‘Preface to Chapters 2-12’.

Figure 1.1 A comparison of health outcomes and determinants of health in two Glasgow communities showing the degree to which this sample of indices is better or worse than the Scottish averageⁱⁱ. Note that the profile for Newton Mearns is different in almost every way from that for Dalmarnock.

Newton Mearns – G77 5



Dalmarnock – G40 4



ⁱⁱ Each bar on these charts represents that community's position on a specific indicator, with bars to the left indicating a position better than the Scottish average, and those to the right indicating a worse position. The indicators include both measures of health and measures of the determinants of health.

1.6 Summary of main themes

Glasgow is changing but health status and inequalities in health lag behind

Glasgow has been undergoing profound change in recent times. It is true that all cities have changed in the last 25 years, but Glasgow is not only typical of these changes, it has experienced the most rapid change in Scotland and has been at the forefront of change in the UK. In addition to the obvious physical improvements in the city, there has been a significant amount of social change. Since the 1980s, the following social, demographic and housing trends have been influential:

- Population decline since the 1950s - driven particularly by the drop in Glasgow's birth rate which fell beneath the death rate for the first time in the mid 1970s.
- Population loss, especially evident in the peripheral estates and in the most deprived parts of the city.
- The number and proportion of residents aged between 25 and 44 has increased, even with overall population levels in decline.
- Increasing numbers of households overall and, within this, a growth in single adult households, a drop in two parent family households and a rise in lone parent households.
- Growth of a service sector based economy - comprising finance, business, the public sector, retail and hospitality - compensating for the collapse of manufacturing industry.
- Doubling of jobs in occupations considered as middle class employment, reflecting the growth in the service sector.
- Increasing involvement of women in employment and the growth of part-time work.
- Increased general levels of prosperity and a generalised reduction in indices of overall deprivation - as measured, for instance, by increased car ownership and reduced levels overcrowding.
- Rising income levels for those in employment.
- Significant falls in unemployment rates.
- Doubling in size of owner-occupation, with growth both in the city centre and in the peripheral estates.
- Transformations to the quality and condition of housing in the city.

In short, much of Glasgow has become a more affluent and 'middle class' city with a profile that is currently similar to most UK cities. Yet, Glasgow's overall health status does not fully reflect the changes described above. There is a 'Glasgow effect'^{3, iii} – that is, an excess of mortality beyond that which can be explained by current indexes of deprivation. The result is that Glasgow's health status remains worse than that of comparable English cities like Liverpool. This 'Glasgow effect' is currently being investigated by a member of the Centre's Observatory Group.

Thus, while there have been many positive changes in Glasgow over the last twenty years there remain notable causes for concern.

ⁱⁱⁱ The supplied reference relates to the existence of a 'Scottish effect'. However, that research has shown that the areas most affected are in Glasgow and the West of Scotland.

Socio-economic, health and environmental differences between affluent and deprived communities are still clearly evident. The income gap between the well-paid and those on the lowest incomes has widened. Official unemployment levels have reduced but increases in economic activity have not been realised because a significant proportion (15%+) of the working age population is too ill or disabled to work. The proportion of families in Glasgow dependent on income related benefits is relatively high and has been so for many years, and a third of children live in households where neither parent is in work. Although overall crime levels have reduced there have been worrying rises in violent crime, drug related crime and vandalism.

An example of the persistence of inequalities, despite decades of interventions to reverse these trends, can be seen in Castlemilk. This area of Glasgow still features prominently in the 10% most deprived datazones in Scotland and its health outcomes remain poor in spite of the high levels of investment in the area over the last 20 years. Despite enhancements to the physical environment and to the facilities in Castlemilk, commensurate social and health improvements have not followed.

What is getting better?

An analysis of what is getting better in Glasgow is illuminating and challenges a number of stereotypes. Life expectancy continues to increase overall and there are encouraging trends in smoking, unemployment, teenage pregnancies, some crimes, and some specific causes of death (e.g. heart disease, stroke, some cancers, accidents, infant mortality).

Two of these trends are worth particular comment. First, smoking has shown a steady decline for two decades. This is part of a national trend but reflects a multiplicity of national and local interventions (tax, health warnings on packets, workplace smoking policies, smoking cessation initiatives, advertising campaigns, schools programmes and much more) that, over time, have made a difference. Is this a model for what needs to be done for problems that are currently getting worse? Second, deaths from heart disease continue to show a marked decline to the extent that, although it was true that at one time Glasgow was the ‘coronary capital of the world’ this is no longer the case.

What is proving resistant to change?

The answer to this question is: some aspects of health related behaviour (e.g. the dental health of children and breastfeeding) and many of the circumstances in which some people live (e.g. some indices of poverty and low income), and indices that reflect disability or chronic disease (e.g. adults unable to work for reasons of health and ‘healthy life expectancy’).

What is getting worse?

Inequalities in health are widening, and we know from numerous studies - many of them recent - that the health of Glasgow's population, as measured by a variety of indicators, is still amongst the worst in Scotland, and indeed in the UK, and that position does not appear to be improving^{4,5}. There is also evidence that Glasgow's health position (for example, as measured by rates in all-cause mortality) has worsened relatively over the last 25 years (see Chapter 3: Population and life expectancy).

However, some of the more specific problems that are worsening are interesting because they, arguably, have a relationship to each other. Obesity is showing a worrying rise. We are part of a global epidemic of obesity but our levels are among the highest in the world and show no sign of slowing. More obesity has already brought rising rates of diabetes and might put into reverse our improving heart disease trends. Alcohol related harm also shows a dramatic increase and concern has been raised that we are ‘in denial’ about the size and nature of this problem. The size of our ‘drugs’ problem is harder to measure but data in this report suggest that, at best, it is not improving. Notifications of sexually transmitted infections are rising, some aspects of mental health seem to be worsening and inequalities between the most and least deprived communities are increasing^{iv}. It is also notable that traffic volumes continue to rise and that vandalism, fire-raising and violent crime are rising.

How do we make sense of these trends?

The historian, Professor Tom Devine, in a lecture hosted by the Glasgow Centre for Population Health^v argued two main points. First that Scotland has, historically, experienced a series of social and economic changes more profoundly than any other part of the industrialised world and, second, the past twenty years has seen a marked improvement. His arguments refer to the whole of Scotland but Glasgow’s experience exemplifies his analysis more than any other part of country.

Devine’s argument is that when the industrial revolution started, Scotland experienced a more rapid and profound industrialisation, with higher migration from the land and a greater intensity of urbanisation, than most regions of Europe. Next, Scotland experienced the highest per capita death rate on the battlefields of World War I and a deep economic slump during the great depression. Scotland, and in particular West Central Scotland, continued to rely on heavy industry much longer than most other European regions. Consequently, when the collapse of heavy industry occurred in the 1960s, 70s and 80s, the effect was more profound. This analysis provides a convincing narrative to explain the relatively poor health of Glasgow around the time of the 1981 census. Unlike cities such as Birmingham, London and Manchester, Glasgow maintained its dependence on heavy industry (despite policy initiatives to diversify into light industry) right up to the early 1970s. Therefore, when the ‘shock’ came in the form of the OPEC oil embargo and the three day week, followed by an economic slump, Glasgow suffered greatly from de-industrialisation, and unemployment then decimated its traditional working class communities.

^{iv} Inequalities in life expectancy between the most affluent and least affluent parliamentary constituencies have increased although the populations of these areas have changed over time and more sophisticated analysis is required to make judgements about the overall changes in inequalities in the whole population.

^v Lecture on 6th December 2005 - available at www.gcph.co.uk/seminar2.htm.

The causes of inequalities in health at that time were clear. They resulted from income inequalities and the poorer life circumstances of people in lower paid employment and unemployment. However, in the past 20-25 years (since the 1981 census) Glasgow has experienced profound changes that have seen a significant improvement in, for example, housing stock, median wages, levels of employment, nature of employment, social class composition of the population and some manifestations of social mobility. We know, of course, that the polarization between the most affluent and least affluent communities has become worse - indeed there is evidence of significant sections of the population being left behind as others prosper further. However, the analysis is not a simple one because the sizes of Glasgow's poorest communities have also decreased significantly since 1981 (see Chapter 3).

The old pathologies, arising from socio-economic inequalities of an industrial age, are now overlaid with a new set of problems that reflect the stresses, speed and levels of consumption of our modern society – obesity, alcohol related harm, mental health problems, traffic congestion and so on. So, despite our rising prosperity, economic gains remain unequally distributed and, while our new 'epidemics' affect the whole population, those who live in the least advantaged areas are suffering most.

Do we need a new strategy?

Towards the end of this report, we ask the question whether Glasgow's strategy for the 21st Century is too heavily influenced by an analysis that was formed in the early 1980s. That analysis focused on material manifestations of deprivation as the primary causes of ill health. Thus, for example, improved housing and employment were seen as two key improvements needed to generate health. This is a sound argument and remains true. Yet, it is equally true that many improvements in material circumstances have occurred. Our inequalities are not confined to material capital but extend into social and cultural capital. Other research now provides interesting clues about the biological pathways between inequality and ill health. For these reasons the Glasgow Centre for Population Health believes we need 'fresh thinking', and a new strategy, if we are genuinely to address our current problems: after all, our current strategy has yielded the results set out in this report. This is discussed further in the final chapter of this report. The reader must make up his or her own mind about the most appropriate way forward.

1.6 Predicting the future?

Our level of satisfaction with our current circumstances will, in part, depend on where we believe our future lies.

The optimistic scenario is that we are experiencing the birth pangs of a historical transformation into a post-industrial society. Glasgow's economy is now dominated by services and consumerism within a much wider (UK, European and global) context. Although we do not understand fully why Glasgow as a whole has less good health than comparable cities, the explanation probably has its roots in the history outlined above and will improve over time. Also, although inequalities between communities are getting bigger, social mobility is diminishing the size of our poorest communities and this will yield a more equal society in time.

How convinced are we of this ‘optimistic scenario’? If we take some of the more troubling trends set out in this report and extrapolate them, the projected future is more worrying. The population is ageing, economic inactivity remains high compared to other parts of the UK and the ratio of those in work to those who receive pensions, benefits or are in full time education will become progressively more unfavorable. While Glasgow’s population is predicted to reduce further in the next ten years, single adult households are predicted to rise to make up half of all households and lone parent families are set to become as common as two parent families in ten years time. Traffic volumes are forecasted to rise by 25% in the twenty years to 2021. In terms of health, two forecasts of what could happen are particularly worrying. If the current trends in alcohol related mortality continue, the number of deaths from this cause will double by 2027. Secondly, looking at life expectancy it is possible that the gap in male life expectancy between Glasgow City and its near neighbour East Dunbartonshire may have widened to ten years in approximately ten years time. Many of these trends are predicted for other parts of Scotland but the uniqueness of Glasgow’s position is in the scale of the changes and the fact that, within Scotland, Glasgow is already at the extreme for many of these indicators.

In short, trends that are currently well established threaten our future. We should also consider threats that have not yet fully engaged public concern. We have moved, over 20 or 30 years, from an economy dominated by manufacturing to one that makes very little. Yet, a long recognized phenomenon, known as ‘peak oil’, is set to bring the age of cheap oil to an end in the near future. This will occur not when oil runs out, but after only half of the oil reserves have been used – the production peak⁶. This is likely to have a large negative and sustained impact on Western economies in the future, as multiple facets of our societies are built upon the cheap availability of oil. Through the impact on economic circumstances, the dwindling availability of energy resources may be the biggest challenge to public health in the foreseeable future. The timing of the oil production peak is hotly debated but we should at least consider the possibility that, just as Glasgow came to rely too much and for too long on heavy industry, we have overshot too far in the direction of consumption and may be ill prepared for future challenges.

1.7 Structure of this report

The whole document is designed to be a comprehensive review of health and its determinants in Glasgow and the West of Scotland. Although the report is an integrated whole, each chapter can be read on its own and individual graphs and figures stand on their own. Chapter 2 provides a **historical perspective on Glasgow’s population**; Chapter 3 looks at issues concerning **population and life expectancy**; Chapter 4 considers **economic factors**; Chapter 5 presents data relevant to the so-called ‘**social environment**’ in which people live (and so includes topics such as education, crime, and social capital); Chapter 6 examines the **physical environment**; Chapter 7 reviews health related **behaviour**; Chapter 8 describes data related to **pregnancy, childbirth and early years**; Chapter 9 includes data relevant to the health and well-being of **children and adolescents**; Chapter 10 looks at indicators of the **health and function** of the population; Chapter 11 examines the topic of **illness and disease**; Chapter 12 looks at **past and future trends**; and finally Chapter 13 provides a **summary** and discusses possible new approaches.

1.8 A ‘civic conversation’

Our proposition is that we need a ‘conversation’ about these issues – a civic conversation. Government, at all levels, will play its part in any solution but it is up to the people of Glasgow, ourselves, to discuss the findings of this report and to come up with the fresh thinking needed to confront some old intractable problems and to rise to a variety of new challenges.

Visit the website – www.gcph.co.uk – to find out about events or add your comment.

References

¹ Hanlon P, Walsh D, Whyte B. Meeting the information needs of the 'Health for all' challenge – lessons from Scotland. *Public Health* 2005; 119(12): 1088-1096

² NHS Health Scotland. Community Health and Well-being Profiles, 2004.
<http://www.scotpho.org.uk/communityprofiles>

³ Hanlon P *et al.* Why is mortality higher in Scotland than in England and Wales? Decreasing influence of socioeconomic deprivation between 1981 and 2001 supports the existence of a 'Scottish Effect'. *Journal of Public Health* 2005; 27(2): 199-204

⁴ Palmer G, Carr J, Kenway P. Monitoring poverty and social exclusion in Scotland 2004. Joseph Rowntree Foundation, 2004.

⁵ Shaw M, Dorling D, Gordon D, Davey-Smith, G. *The Widening Gap: health inequalities and policy in Britain*. 2nd ed. Bristol: The Policy Press, Bristol, 1999

⁶ Kunstler J H. *The Long Emergency*. London: Atlantic Books, 2005

Preface



Preface to Chapters 2-12

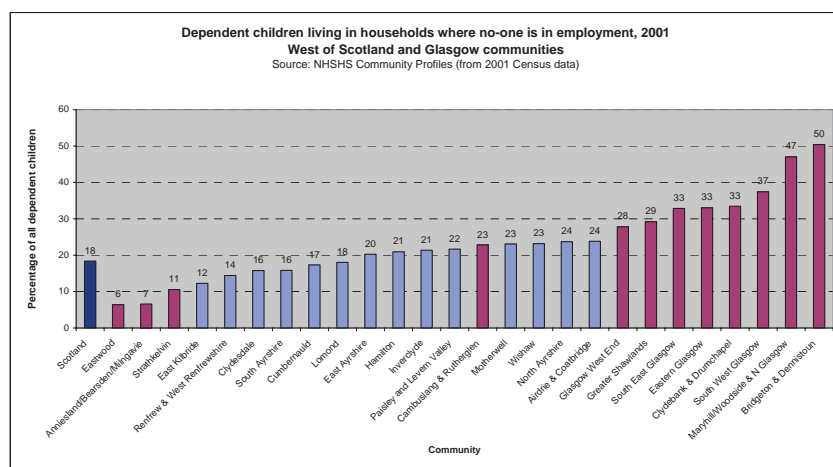
Please note that the data presented in the following chapters relate to a number of different geographical areas:

- **West of Scotland.** This is defined as covering 11 local authority areas in West Central Scotland, namely East Ayrshire, East Dunbartonshire, East Renfrewshire, Glasgow City, Inverclyde, North Ayrshire, North Lanarkshire, Renfrewshire, South Ayrshire, South Lanarkshire, and West Dunbartonshire (Map 1 overleaf). However, we have also defined the West of Scotland as covering a number of so-called ‘communities’. This is discussed further below.
- **Greater Glasgow.** This relates to the boundaries of NHS Greater Glasgow.
- **Glasgow City.** Data presented at this level relate to the City Council boundaries. Note also that, generally, references to ‘Glasgow’ mean Glasgow City.

However, a considerable amount of information has been taken from the 2004 Community Health and Well-being Profiles produced by NHS Health Scotland¹. These data are presented at two further geographies:

- **Community.** These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. Map 2 overleaf illustrates the broad geographical spread of the West of Scotland and Greater Glasgow communities.
- **Postcode sector.** These are small areas with populations of around 3,000-5,000 on average.

Note that all the charts which present data at a ‘community’ or postcode sector level, employ the following colour scheme. Communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. This is illustrated in the example below.



Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

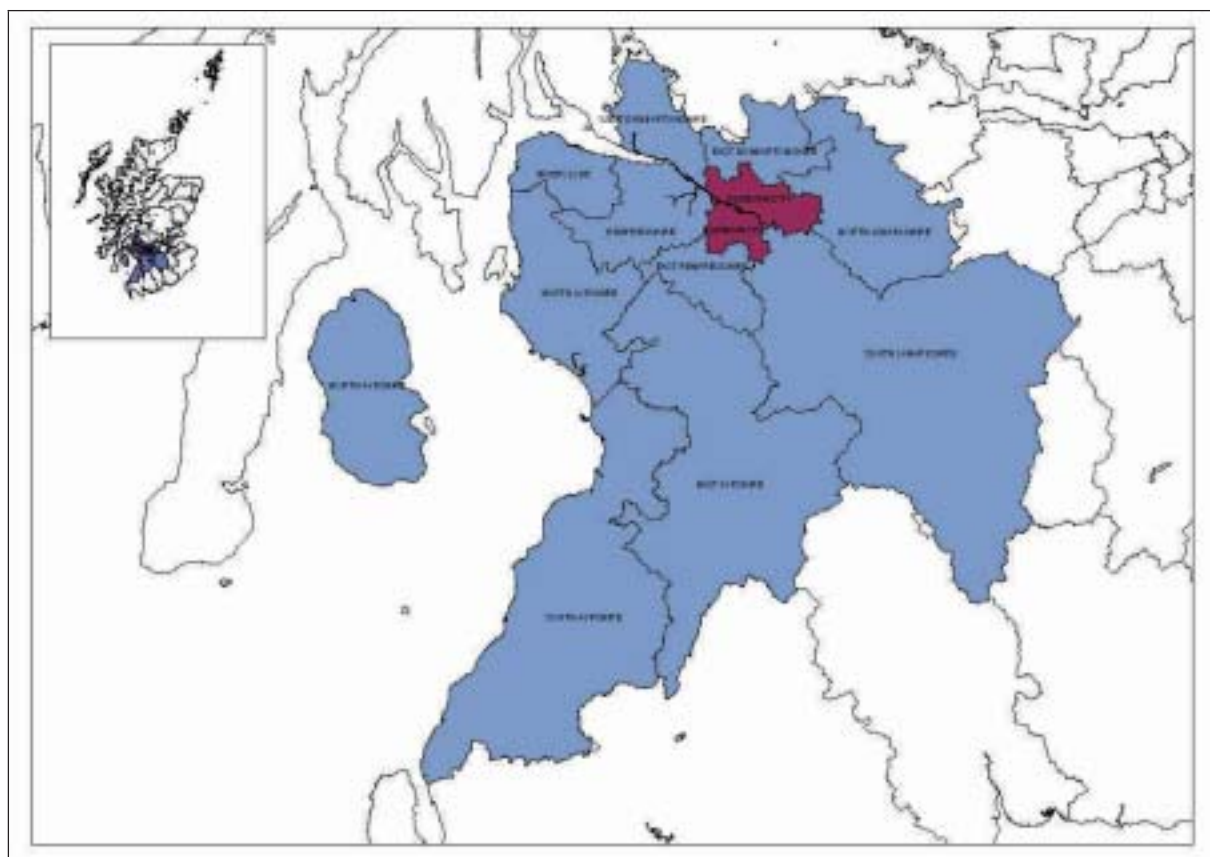
¹ See www.scotpho.org.uk/communityprofiles.

Note also that the postcode sectors are presented by means of a descriptive name rather than their official postcode name (e.g. 'Hillhead' rather than 'G12 8'). With some minor adaptations, these are the names that were used in the Community Profiles. We believe that presenting the information in this way is more meaningful to the reader. However, it should be borne in mind that all these descriptive names are very approximate, and the boundaries of postcode sectors will seldom match natural communities. A full list of all the West of Scotland postcode sectors used in this report, along with their descriptive names, is included in Appendix 2.

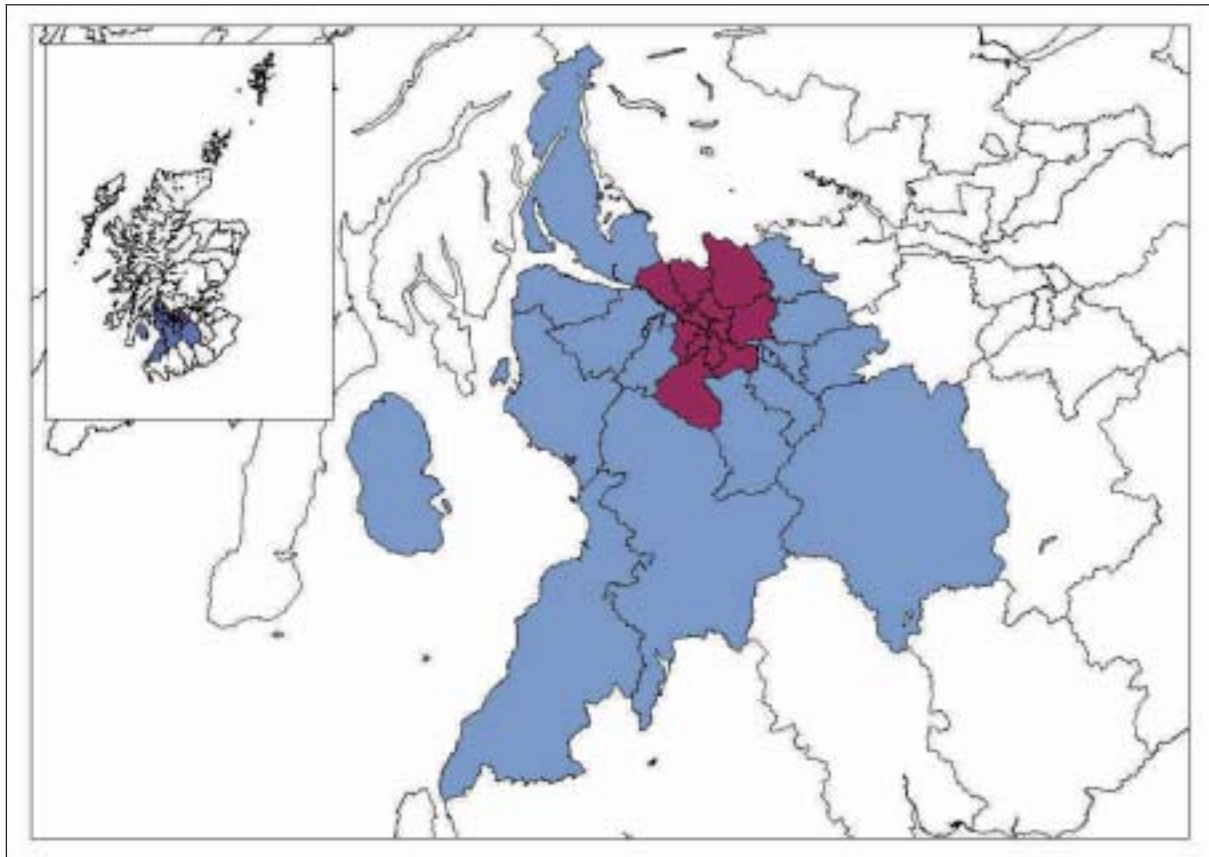
It should be noted that most of the data presented at a community and postcode sector level covers the years 2001 to 2002. It is possible, therefore, that areas (particularly small areas) may have undergone change in the past three or four years which could impact on the figures presented.

Note finally that in a few cases, other geographies (e.g. parliamentary constituency, data zone) have also been used. However, these are fairly small in number.

Map 1: 'West of Scotland' council areas (Glasgow City shaded dark red)



Map 2: 'West of Scotland' communities (Greater Glasgow communities shaded dark red).



Summary

The last 200 years have seen extraordinary change in the size of the population of Glasgow, from initial rapid growth to more recent decline.

The birth and death rates have been in decline since the middle of the 19th century. However, the death rate now exceeds the birth rate and, without a resurgence in the fertility rate or significant inward migration to Glasgow, the city's population is likely to drop further.

The downward trend in infant mortality underlines the huge improvements in public health, hospital treatment, sanitation and housing that have been achieved over the last 150 years.

Inequalities in health have been present in Glasgow throughout the entire period.

At the start of the 20th century, Glasgow's health compared favourably with the large English cities such as Liverpool, Manchester and Birmingham. This is no longer the case.

Overall life expectancy for both men and women has doubled over the last 100 years, increasing by approximately 34 years and 39 years respectively since the late 19th century.

"In the past quarter century Glasgow has been part of a rapid change that has affected North America, Europe and parts of Asia."

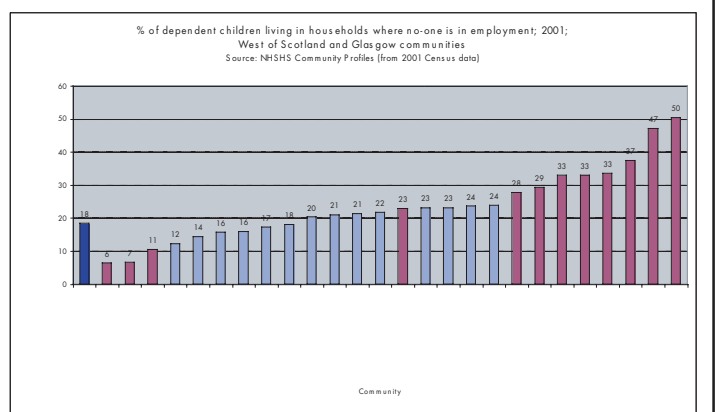
"...many of the healthiest and least healthy communities within the city remain unchanged from a hundred years ago."

"The population [of Glasgow] in recent years has reached relative stability... although further reductions are predicted."

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 2: A historical perspective on Glasgow's population

In the past quarter century Glasgow has been part of a rapid change that has affected North America, Europe and parts of Asia. Glasgow has undergone a transition to become a post-industrial society. Service industries have replaced manufacturing and a new knowledge economy is emerging. Consumer choice has exploded, fertility rates have fallen, divorce has soared, and out of marriage child bearing has increased. Perhaps most important of all, trust and confidence in institutions have declined. Within local communities, mutual ties between people have tended to become weaker and less permanent. We have to look to a set of demographic, economic and cultural trends to account for these changes. The nature of work and the respective roles of men and women have changed, as have many fundamentals of life including the family, leisure, beliefs, values and norms. For example, increased life expectancy and greater control of fertility made it both inevitable and desirable that women should seek a wider range of activities beyond the traditional child rearing and home making roles. Simultaneously, the knowledge economy had less use for the physical strengths of young men. The result in some communities is a large cohort of younger men who find themselves without a meaningful role at home or in work, and many of them lack the education or social skills to remedy the situation. Could this be the explanation for the fact that younger men have seen an absolute increase in their death rates in recent years, mostly through accidents, suicide, drug related deaths and violence?

Great disruptions of this nature are not new. At the beginning of the industrial revolution, alcohol consumption, crime and illegitimacy (to quote just three indices) were substantially higher than they are today. What emerged in that period was a reaction to the social disorder that accompanied the upheavals brought about by the industrial revolution. Victorian society deliberately sought to create institutions and instil values that would create order out of what seemed like chaos. Thus, in time, emerged co-operative societies, modern police forces, health visitors, universal education, orphanages and much else. These were supported by grass roots efforts to create and sustain a whole series of informal norms and behaviours that, in their time, were important for social order. The fact that these eventually became outmoded and now often seem illiberal to modern eyes does not mean that they were not radical in their time. Human societies have been very inventive and successful in their response to change. Can we be as successful in our responses to our post-industrial society?

The lesson of history is that we should be optimistic. Therefore, we begin this report with a brief review of Glasgow's history, noting how successful we have been at improving health in the past.

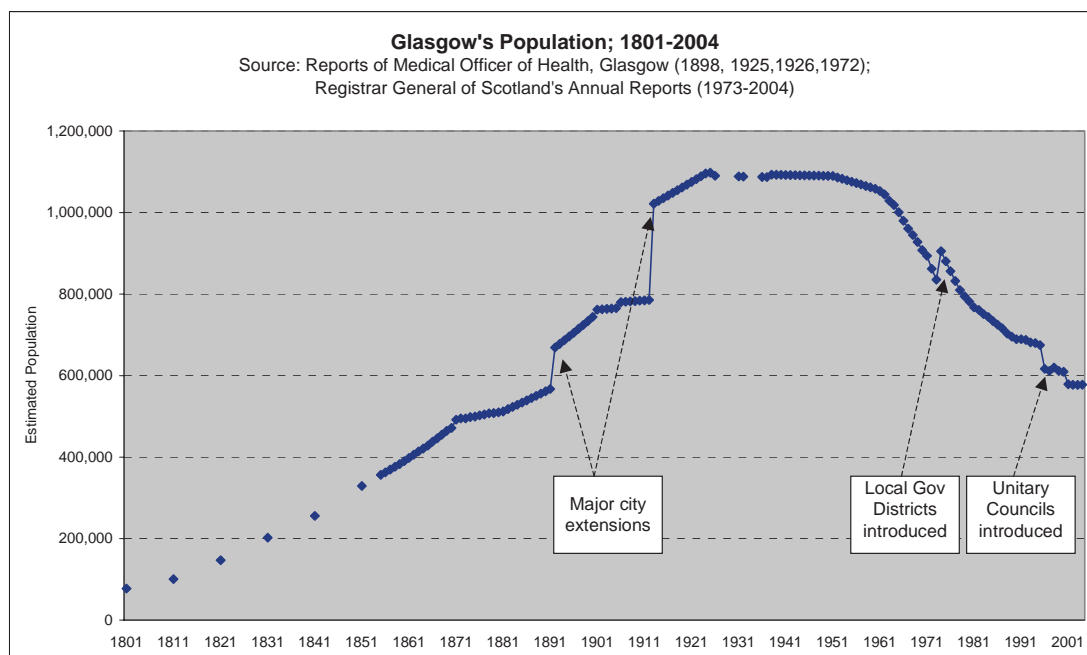
In the following sections of this chapter some of the major demographic trends that have affected Glasgow over the last century and a half are summarised with the focus on three topics: population, births and deaths. A brief description of inequalities in the city around the start of the 20th century is also given to, first, emphasise that the issue of inequalities in living conditions and in health outcomes is not new; and, second, to show that Glasgow's health position in comparison to other major UK cities has not always been as relatively poor as it is currently. Finally, the great improvement in life expectancy in the city over the last 150 years is illustrated.

2.1 Trends in population, births and deaths

Population

The reports of Glasgow's Medical Officers of Health¹, which extend back into the 19th century, provide an insight into the spectacular growth of Glasgow's population. Figure 2.1, using data drawn from the aforementioned reports and from the annual reports of the General Registrar for Scotland², illustrates Glasgow's population trend over the last 200 years.

Figure 2.1



In 1801 the population of Glasgow was estimated as 77,000. Within 20 years the population had almost doubled to 147,000 and a hundred years later, in 1901, the population was ten times as large, estimated at 762,000. During this period the boundaries of the city were extended on many occasions reflecting the expansion of the city population. Both reductions in mortality (particularly early in life, brought about by improved sanitation, nutrition and general life circumstances) and greater inward migration (as people were attracted to industrial jobs) contributed to the increased population of the city.

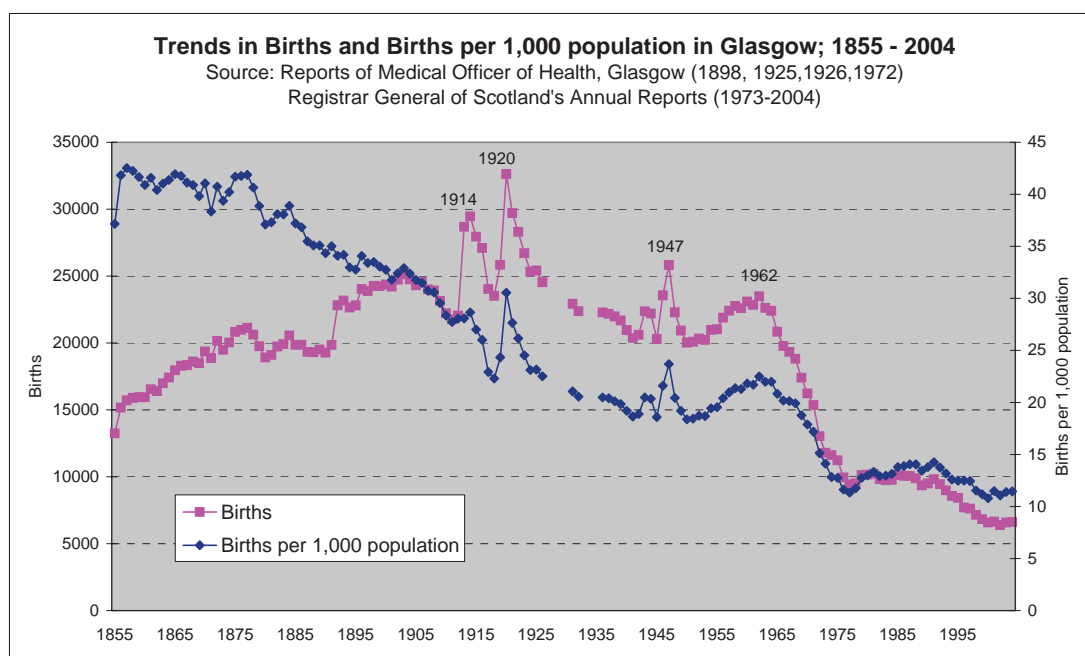
Glasgow's population peaked in 1925 but then remained stable until the early 1950s when it began to drop. In the early 1960s Glasgow's population started to fall steeply, by 1% or more per year, and by 2004 the population of the city (as defined by the Council boundaries) stood at just over 577,000.

Births

Figure 2.2 presents Glasgow's birth trends from 1855 to 2004 in terms of both actual births and birth rates. The numbers of births in the city rose steadily through the second half of the 19th century and peaked just after the end of the First World War, in 1920. Since then, despite a post-war rise in 1947 and again in the 'baby-boomer' years of the 1950s and early 1960s, the number of births (and the birth rates) has continued to fall. In 2004 there were 6,612 births in the city; less than a third of the figure of 22,415 recorded forty years previously.

The most striking pattern to note from the birth rate figures is that they have clearly been in long-term decline since the mid 19th century. In the 1860s the birth rate was above 40 per 1,000 but had dropped to half this rate by the 1930s. From 1964 to 1977 the birth rate dropped particularly steeply, but since then it has stabilised at around 11 per 1,000.

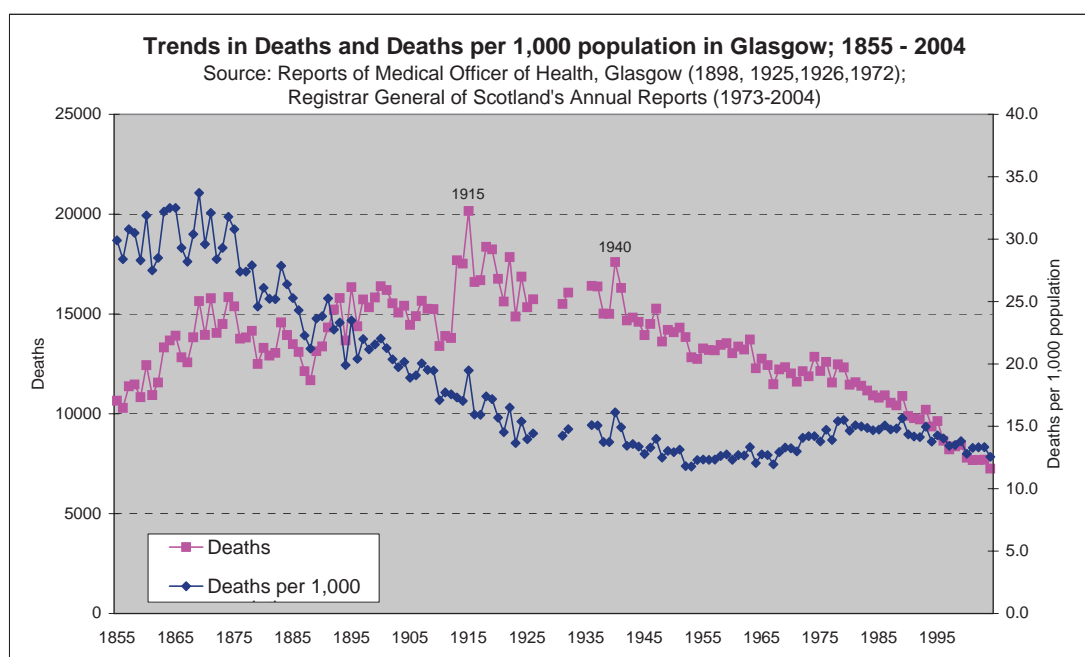
Figure 2.2



Deaths

Figure 2.3 illustrates the trends in deaths and death rates for the city since 1855. As the graph illustrates, the number of deaths in Glasgow rose from the mid-1800s to the 1920s before dropping. Much of the rise in the number of deaths until 1920 can be attributed to the expanded population of the city because the crude death rate from the 1870s onward dropped, falling from around 30 per 1,000 population to below 15 per 1,000 by the mid 1940s. The crude death rate has fluctuated between 13 and 16 per 1,000 since the 1940s. This rate does not, however, take account of population ageing and, as Chapter 3 of this report shows, the age-standardised mortality rate in Glasgow has reduced steadily since the 1970s.

Figure 2.3



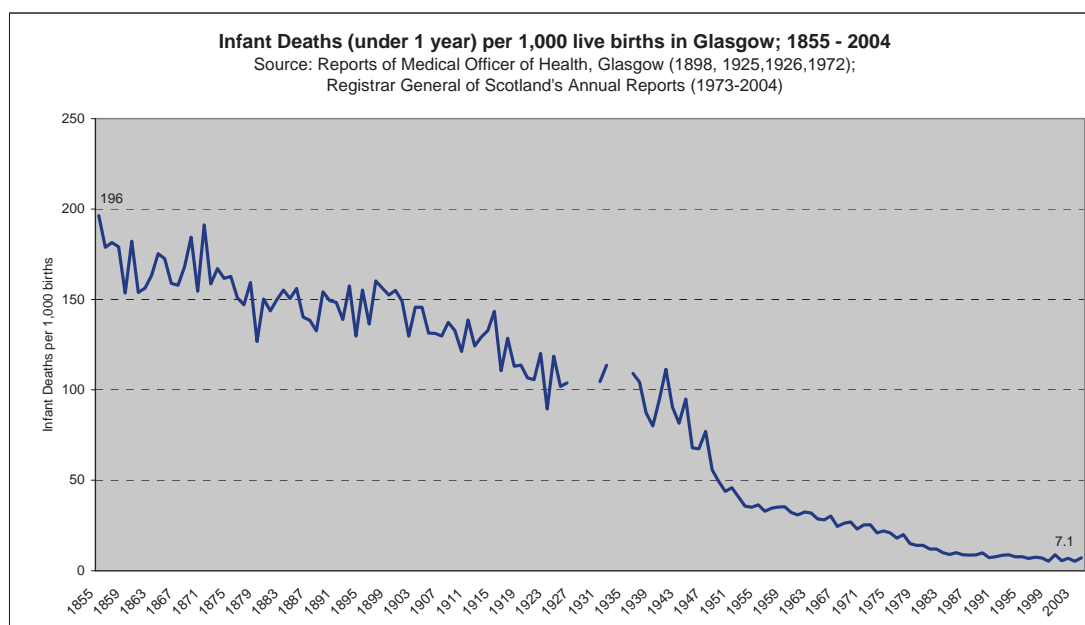
The great progress that has been made in improving the health of Glasgow's citizens can perhaps be best illustrated by looking back to 1901, when the distribution of deaths by age and disease was markedly different to today. In 1901, deaths of children under five years of age accounted for 41% of all deaths and, of those dying in their first year of life, 33% of deaths were due to diarrhoeal and respiratory diseases (532 and 660 total deaths respectively).

Deaths from many infectious diseases, which have all but disappeared in the present day, were common. Out of an overall total of 15,715 deaths in the city in 1901, significant numbers of deaths were recorded for the following: smallpox (193 deaths), diphtheria (115), scarlet fever (131), typhus (10), enteric fever (210), measles (499), whooping cough (850), diarrhoeal diseases (861), and tubercular diseases (2101). In contrast, deaths from cancer (498) and circulatory diseases (1154) were far less prominent overall than now.

Infant deaths

The falling death rates in the city reflect public health advances, better healthcare and improved life circumstances. The impact of these improvements is seen most vividly in the dramatic drop in the infant death rate from almost one in five babies dying in the city in their first year of life (in 1855) to one in forty by 1972 (Figure 2.4). Even since 1972, infant mortality has dropped significantly (although this is not clearly shown in the graph) to 7.1 deaths per 1,000 live births in 2004 – a rate which is less than a third of the rate in 1972.

Figure 2.4



However, despite the much higher rates of mortality that were prevalent a hundred years ago, Glasgow’s comparative position was better in the past than it is today. As Table 2.1 shows, in 1901, Glasgow had lower infant mortality rates than several English cities and comparable overall death rates.

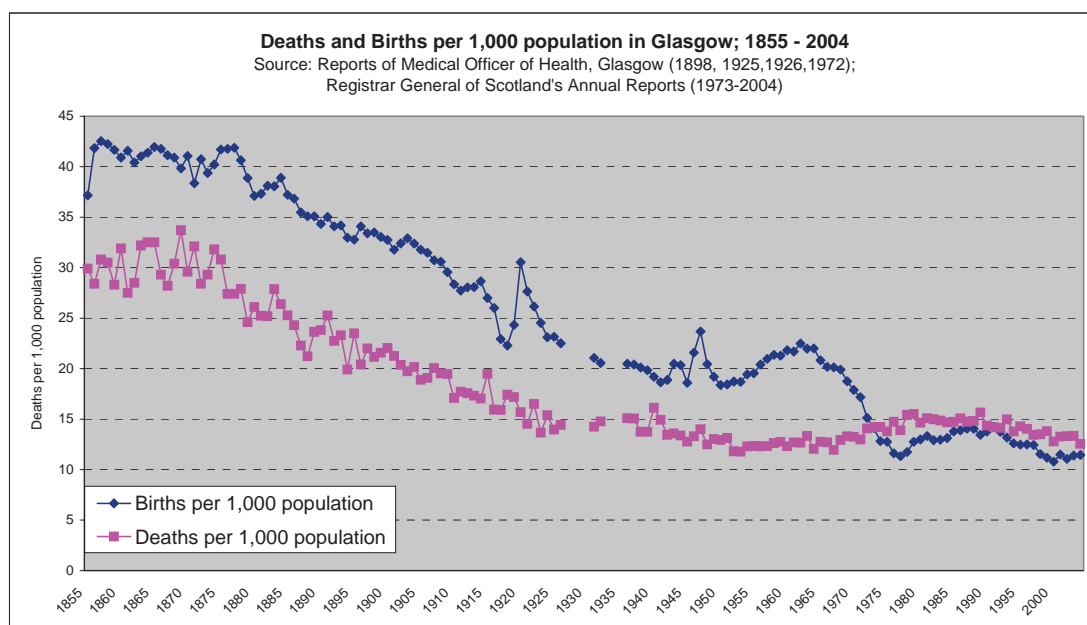
Table 2.1

City in 1901	Infant mortality (per 1,000 live births)	All cause mortality (per 1,000 population)
Glasgow	149	21.2
London	149	17.6
Liverpool	188	22.3
Manchester	199	22.1
Birmingham	187	20.5

Implications of birth and death trends

Figure 2.5 below, showing the birth and death rates in the city between 1855 and 2004, demonstrates how the birth rate outstripped the death rate throughout this period until 1973. In contrast, for most of the period since, deaths have exceeded births. The implications of this are that, unless fertility rates rise or Glasgow gains population through net inward migration, the population of the city looks set to reduce further. Population projections produced by the General Register Office for Scotland, which are included in the Chapter 3: Population and life expectancy, confirm this.

Figure 2.5



2.2 Inequalities one hundred years ago

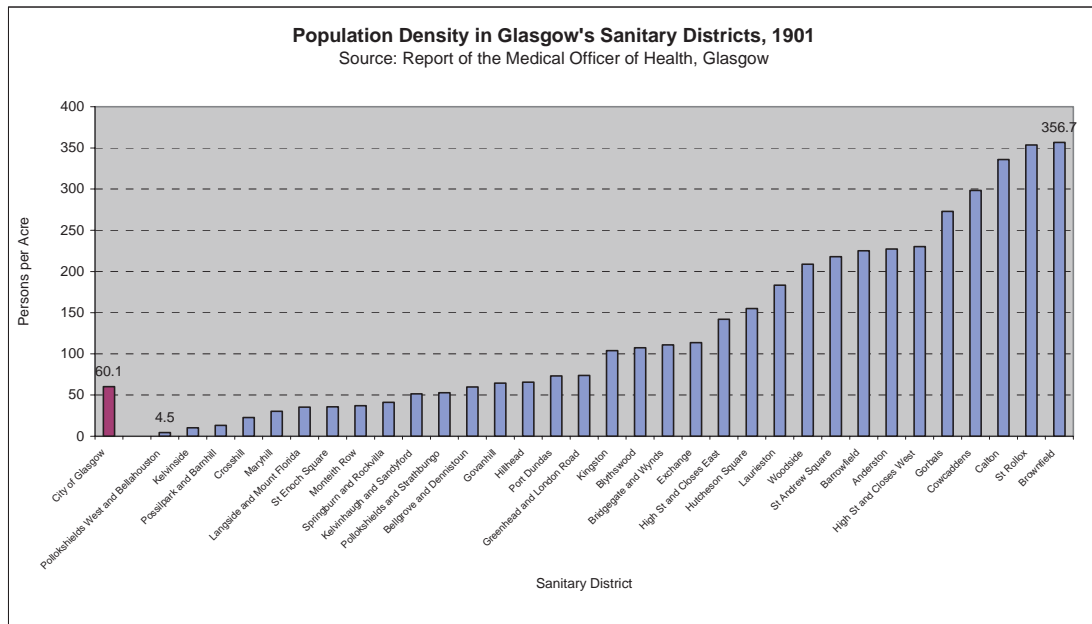
While health inequalities are a major concern today, there were clearly growing concerns about the effects of poverty and poor living conditions in late Victorian times³. The following graphs show patterns in population density, birth and death indicators for sanitary districts¹ in 1901.

Population density

Population density (see Figure 2.6) – a crude proxy for overcrowding – showed huge variations across the city from 4.5 persons per acre in Pollokshields West & Bellahouston and similarly low rates in Kelvinside, to extremely high figures for Brownfield (357 persons per acre) and St Rollox (354).

ⁱ In 1901, for the purposes of health administration, Glasgow was organised into sanitary districts. Their average population in 1901 was 23,000, but there was a wide range in their size from St Enoch Square, the smallest, with a population of 3,000 to Bellgrove and Dennistoun with a population of nearly 80,000.

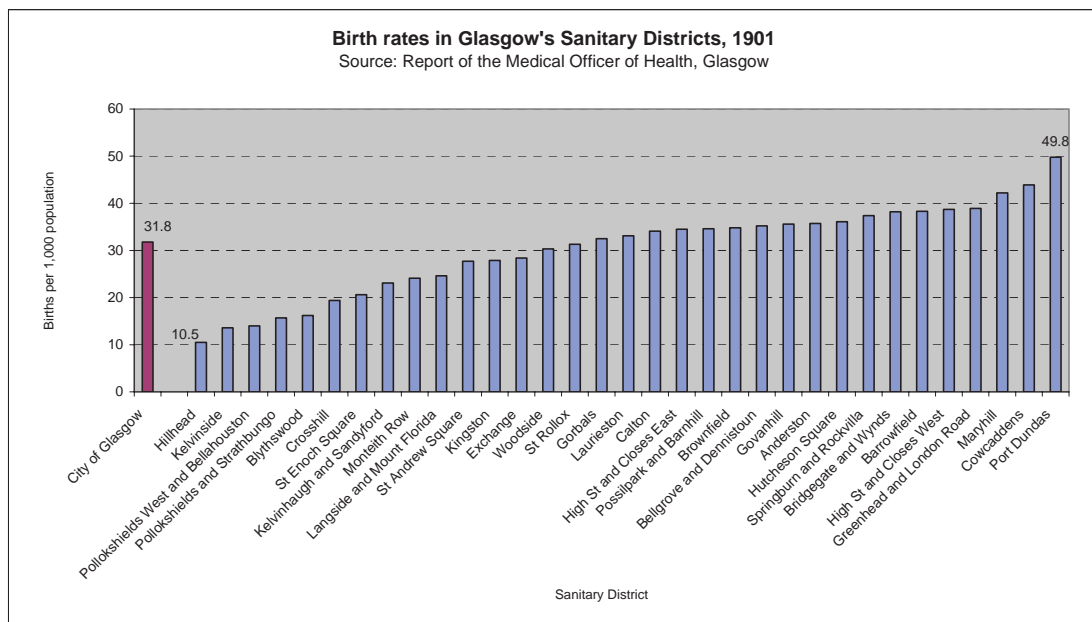
Figure 2.6



Births

Birth rates in 1901 showed a five-fold variation across the city from 10.5 per 1,000 in Hillhead and 13.6 per 1,000 in Kelvinside to 49.8 per 1,000 in Port Dundas (Figure 2.7).

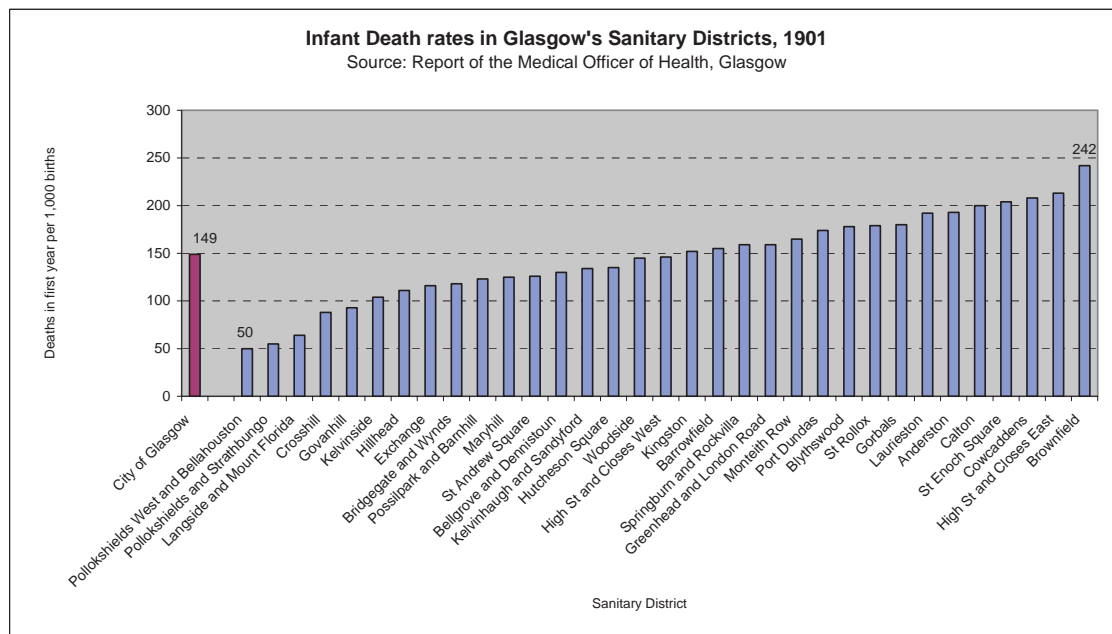
Figure 2.7



Infant deaths

The Figure below (Figure 2.8) shows infant death rates for Glasgow's Sanitary Districts. There was a five-fold variation between the rate of 50 per 1,000 in Pollokshields West & Bellahouston and that of 242 per 1,000 in Brownfield (part of the Broomielaw area).

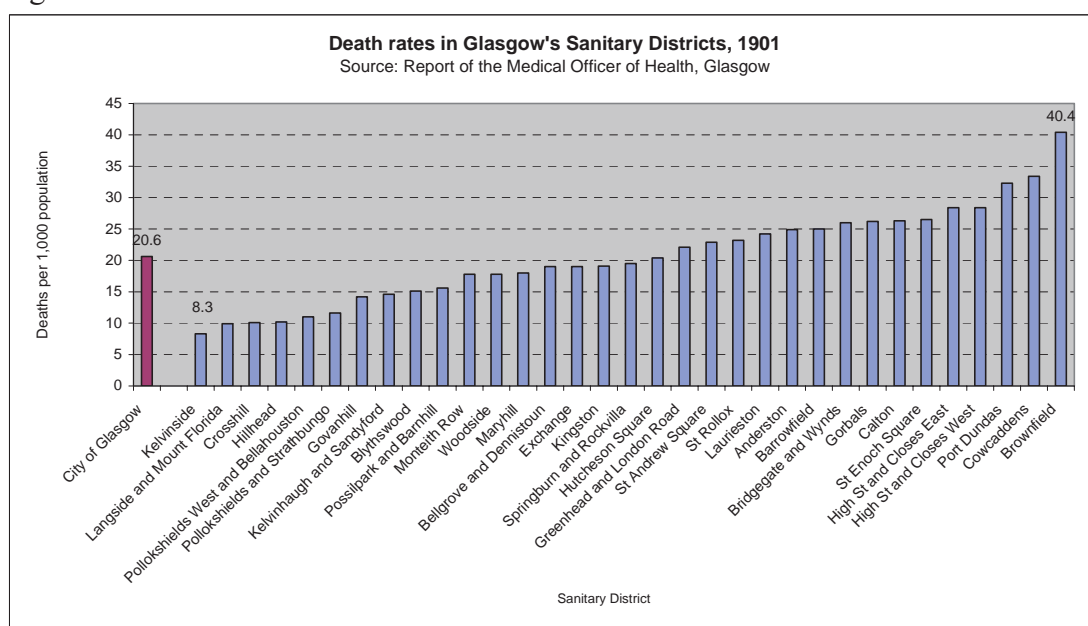
Figure 2.8



Deaths

The overall crude death rates per 1,000 followed a similar pattern (see Figure 2.9) with the lowest rates in Kelvinside (8.3) and the highest rates in Brownfield (40.4).

Figure 2.9



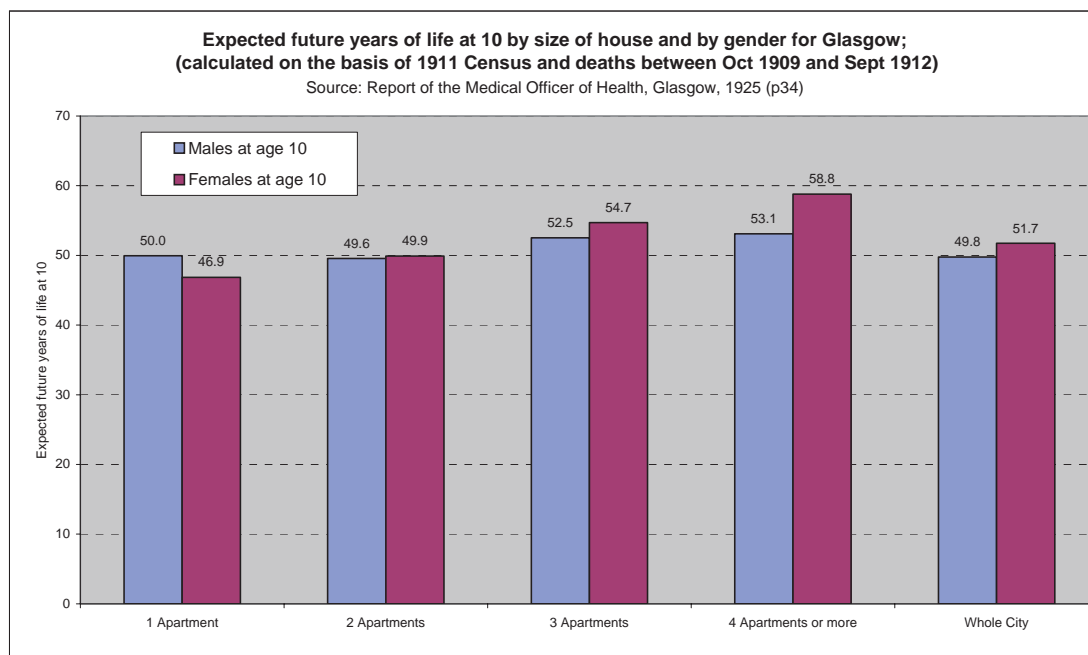
The 1901 Medical Officer of Health’s report noted that, during the preceding 30 years, most sanitary districts had shown a reduction in death rates. However, two were largely unchanged, Cowcaddens and Brownfield, and the report commented that in these districts “the mass of insanitary conditions affects so large a proportion of the inhabitants that the district death rates, as a whole, are influenced thereby”. The areas were compared unfavourably to Kelvinhaugh & Sandyford and Pollokshields West & Bellahouston, which apart from Kelvinside, had the lowest death rates in the city.

These comments and the preceding graphs illustrate the truth of the observation that “where you live, the class into which you were born, the size of your family, and your access to ‘improvements’ in housing, diet and medical care – were all critical influences upon life and death in Glasgow”⁴. In Glasgow at the beginning of the 21st century this comment still retains validity, as will be illustrated in subsequent chapters. It is also notable from these figures that many of the healthiest and least healthy communities within the city remain unchanged from a hundred years ago. The next chapter of this report returns to the theme of health inequalities and illustrates the persistence of mortality and life expectancy inequalities in Glasgow at the beginning of the 21st century.

Life expectancy and overcrowding

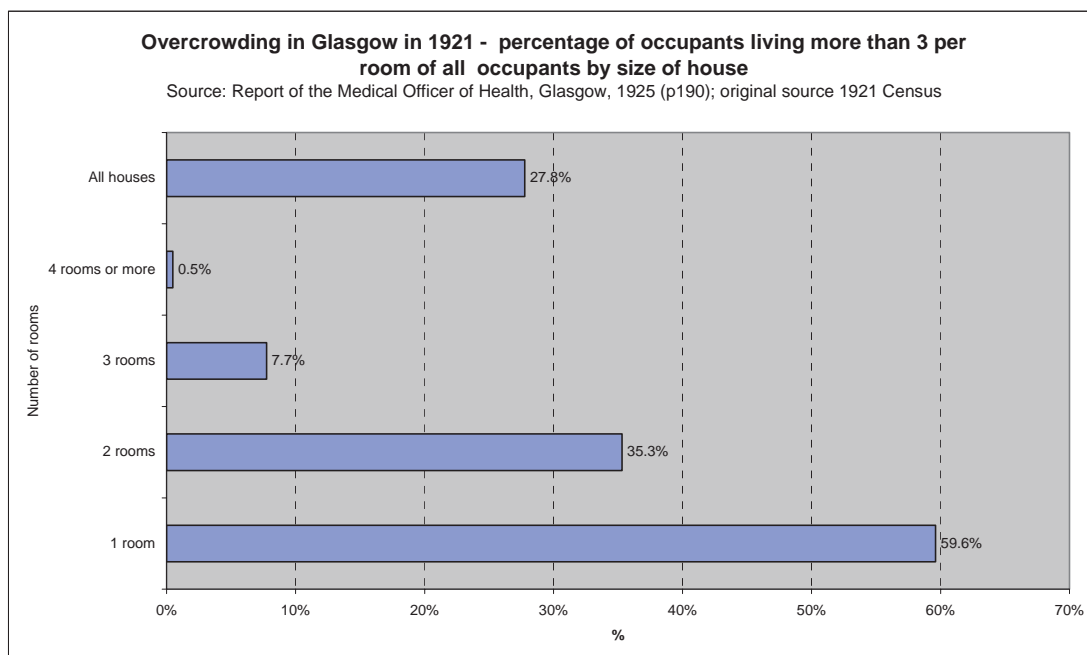
In the 1925 Medical Officer of Health report for Glasgow, the difference in life expectancy by size of house (a proxy for overcrowding) was demonstrated. For girls aged ten, there was an estimated difference in future expected years of life of 12 years between those living in one apartment houses (46.9 years) and those living in housing of four apartments or more (58.8 years) (see Figure 2.10). For boys of the same age, the equivalent gap in expected future years of life was only three years.

Figure 2.10



Overcrowding, and poor living conditions in general, and their relationships to ill-health were already well-recognised concerns, which had prompted a range of measures aimed at improving living environments. These included slum clearances, improvements to sewage and water quality, redesign of tenements, tighter planning controls and housing developments aimed at spreading the population and re-housing people in less cramped circumstances. However, the issue of overcrowding was still a major concern in 1921 with over 270,000 people, 28% of the city's population, living in accommodation where there were more than three occupants per room (Figure 2.11). A presentation and discussion of more recent trends and inequalities in overcrowding is contained within Chapter 6: Physical environment.

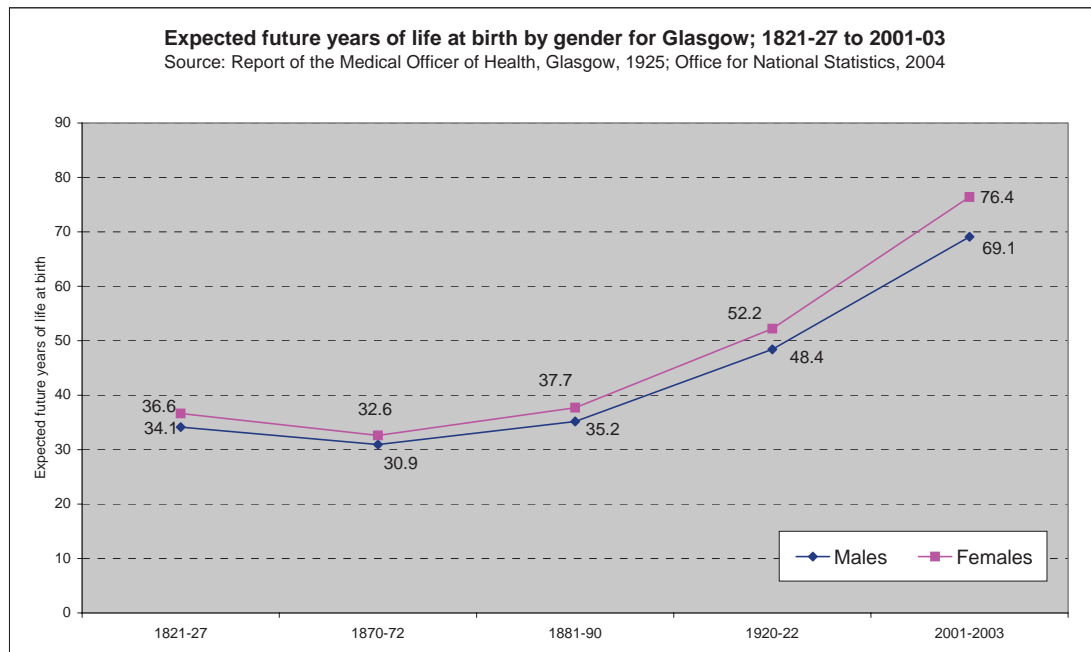
Figure 2.11



2.3 Improvements in life expectancy

Life expectancy trends in Glasgow from the early 1820s onwards (see Figure 2.12) demonstrate the exceptionally low life expectancy of men and women in the city during the 19th century. It is only from around 1900 onwards that a notable rise in life expectancy in the city occurs. Life expectancy for men and women has approximately doubled over the last 100 years.

Figure 2.12



The following chapter (Chapter 3: Population and life expectancy) provides further analysis of life expectancy trends, particularly in relation to deprivation.

Summary

This chapter has attempted to highlight some of the key health and demographic trends that have occurred in Glasgow in the last 150 or so years.

- There was extraordinary population growth from the beginning of the 1800s into the 1920s, followed by a brief period of stability in the 1930s and 1940s, and then a decline, which became rapid from the 1960s until 2000. The population in recent years has reached relative stability at around 570-580,000, although further reductions are predicted.
- There has been a steady reduction in the birth rate from the 1860s onwards with the birth rate in 2004 approximately one quarter of the rate in 1860.
- Over the same period the death rate has dropped significantly.
- The death rate now exceeds the birth rate; a reversal of the pattern prevalent from 1855 to the 1970s. Without a resurgence in the fertility rate or inward migration Glasgow's population is likely to drop further.
- The downward trend in infant mortality underlines the huge improvements in public health, hospital treatment, sanitation and housing that have been achieved over the last 150 years. Even in the last 40 years the infant mortality rate has dropped significantly from 22 per 1,000 live births in 1972 to 7.1 per 1,000 live births in 2004.
- Inequalities in health have been present throughout the entire period.
- Compared to other large cities, Glasgow's health position has not always been as bad as it is now. In 1901 Glasgow's infant mortality and overall mortality rates were lower or on a par with those in Liverpool, Manchester and Birmingham.
- Despite the poor comparative position of Glasgow's health currently in relation to other parts of Scotland and the UK, it is important to bear in mind that overall life expectancy for both men and women has doubled over the last 100 years, increasing by approximately 34 years and 39 years, respectively, since the late 19th century.

References

¹ City of Glasgow Corporation. Reports of Medical Officer of Health, City of Glasgow. 1898, 1925, 1926, 1972

² General Register Office for Scotland. The Registrar General for Scotland's Annual Reports, 1973-2004.
<http://www.gro-scotland.gov.uk/statistics/library/annrep/index.html>

³ Booth C. Inquiry into the Life and Labour of the People in London. various publications, 1889-1903

⁴ Fraser W H, Maver I, eds. Glasgow, Volume II: 1839-1912. 1996

Summary

The City of Glasgow, with a population of 577,000, and Greater Glasgow NHS Board, with a population of 867,000, are the largest council and NHS Board, respectively, in Scotland.

Among West of Scotland councils, Glasgow City has one of the lowest proportions of children in its population but the highest proportion of people of working age.

In Glasgow, the proportions of men and women of pensionable age are strikingly different: 22% of women compared with 12% of men.

Forecasts predict that the population of Glasgow City will reduce further in the next 20 years, but Glasgow will retain a relatively stable, low dependency ratio in contrast to other West of Scotland councils, where dependency ratios will rise.

Despite the prediction of a continuation of falling population size overall, numbers of households are predicted to rise.

It is predicted that by 2016 single adult households will account for 49% of all households in Glasgow and single parent households will make up almost one in two households with children.

Trends in overall deaths are downward, but the mortality gap between the communities with the highest and lowest mortality has widened noticeably.

People are living longer, but when the West of Scotland councils are compared there is an eight year gap in male life expectancy with Glasgow having the lowest life expectancy (69.1) and East Dunbartonshire (77.2) the highest.

Female life expectancy, while better than male life expectancy, also displays a variation of around four and a half years across the West of Scotland councils.

Within Greater Glasgow the polarity in life expectancy is clear: for instance, there is an estimated 15 year gap in male life expectancy between Bridgeton & Dennistoun and Anniesland, Bearsden & Milngavie.

Over the last twenty years, life expectancy in the 20% most affluent and 20% least affluent communities has diverged markedly; the gap in male life expectancy in the region between the most and least affluent communities has widened to nearly 12 years.

It is notable how relatively young people are when they are first affected by limiting longstanding illness, as is the length of time people, particularly women, live with a limiting long-term illness.

Despite overall reductions in mortality, huge health inequalities remain and indeed such inequalities appear, on the basis of a number of different mortality and life expectancy measures, to have widened over the last ten to 20 years.

“Greater Glasgow not only has the communities with the highest mortality rates in Scotland, but also those with the lowest mortality.”

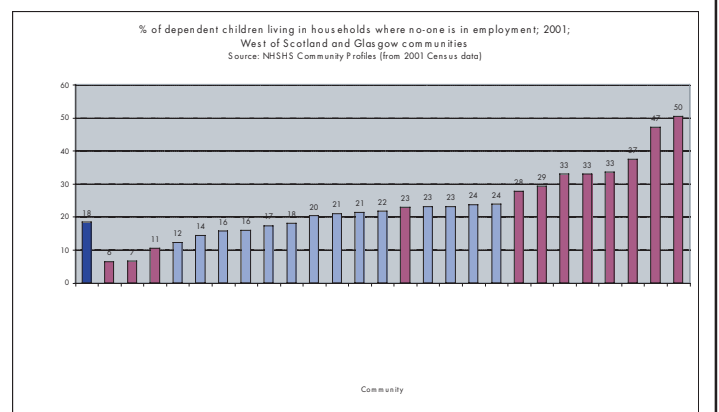
“The 15 year gap in male life expectancy between Bridgeton & Dennistoun and Anniesland, Bearsden & Milngavie highlights the differences in life circumstances, lifestyles and life chances that exist in the city.”

“It is predicted that single adult households will account for 49% of all households in Glasgow by 2016.”

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 3: Population and life expectancy

The previous chapter described some of Glasgow's historical demographic trends. In this chapter we look at recent demographic and health trends across Glasgow and the West of Scotland, and highlight health inequalities within the region. Specifically, we focus on a number of key themes:

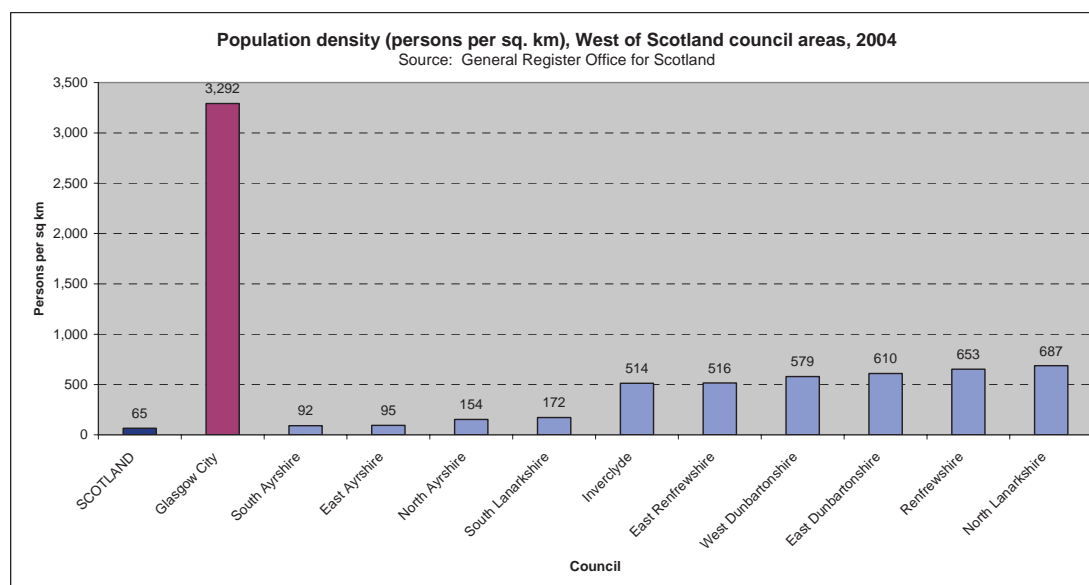
- population – including population density, population structure, dependency ratios, population change and future projections;
- household structure and household projections;
- vital statistics, in terms of births and deaths;
- life expectancy, in terms of patterns of inequality, trends and healthy life expectancy.

3.1 Population size and density

Of the estimated 5,078,400 people living in Scotland¹, just over 42% (2.1 million) live in the West of Scotland. The city of Glasgow with a population of 577,000 and Greater Glasgow NHS Board (population - 867,000) are the largest council and NHS Board, respectively, in Scotland.

Population densities in all the West of Scotland council areas are higher than the Scottish average, reflecting the urbanised nature of the region. However, within that, there is a wide spectrum of population densities across the West of Scotland councils (see Figure 3.1), ranging from Glasgow City with the highest concentration of people (3,292 persons per square kilometre or 33 per hectare) to South Ayrshire with the lowest population density (92 persons per square kilometre or 0.9 per hectare).

Figure 3.1



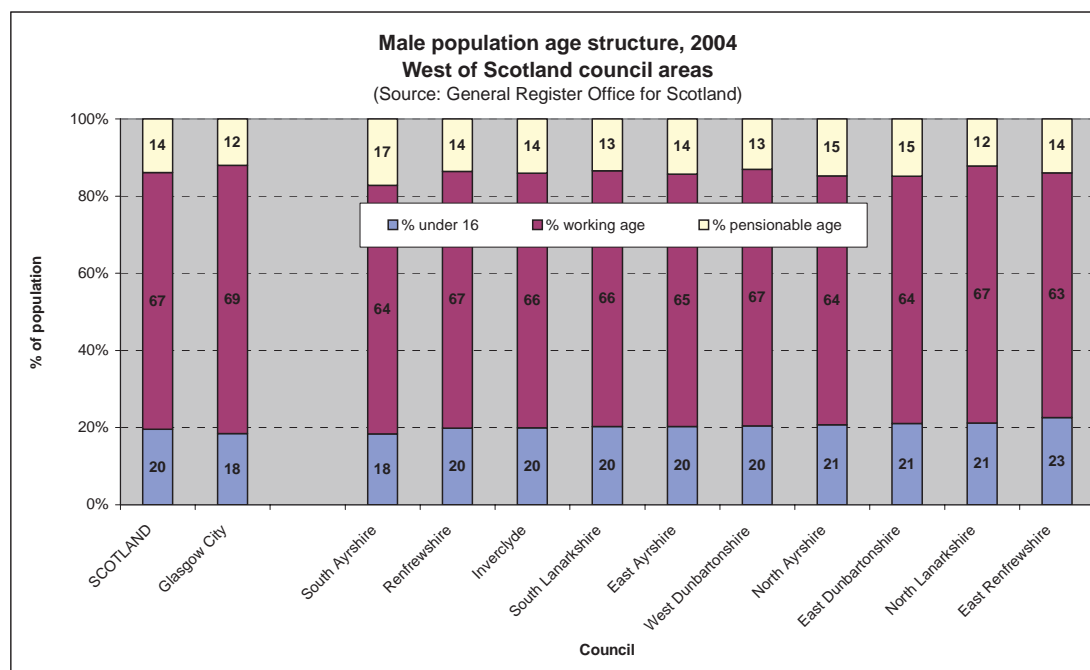
3.2 Population structure

Population age structure by council

The age and sex population structures of West of Scotland council areas vary greatly. Currently, the average age for a man in Scotland is 38 years, while the average age for a woman is slightly older at 41 years. In many of the West of Scotland councils, the average age of the male population is younger than the Scottish average. In Glasgow City, the average age of males is 36 years, the youngest average age among the West of Scotland councils. The average age of a woman in the West of Scotland is close to the Scottish average, but it is slightly lower in Glasgow at 40 and higher in South Ayrshire at 44 years of age.

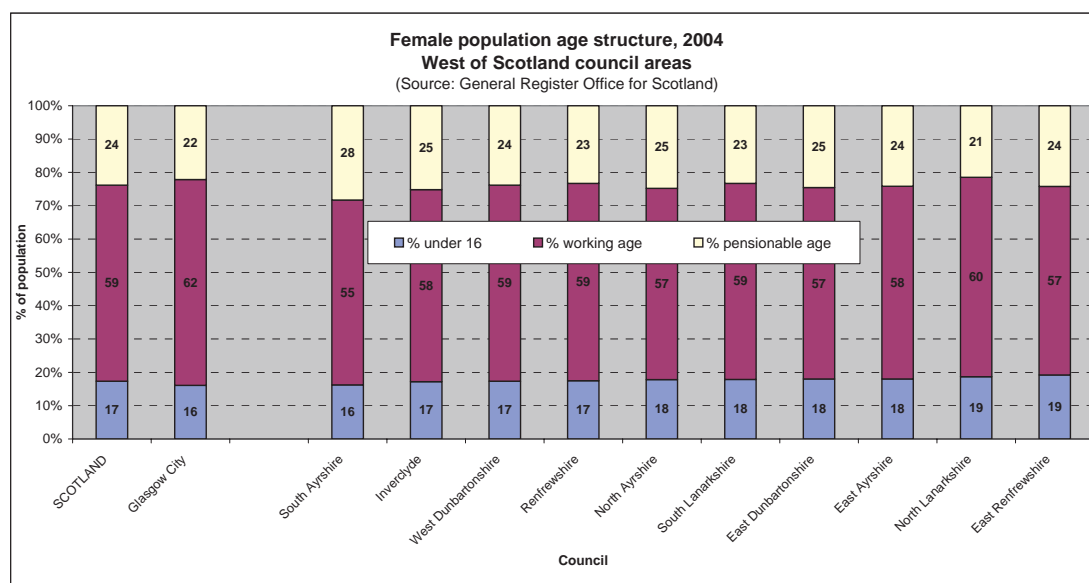
Figures 3.2 and 3.3 show the proportions of the male and female population, respectively, in three age groups – ‘under 16’, ‘working age’ and ‘pensionable age’ⁱ.

Figure 3.2



ⁱ Working age: 16-64 years for men and 16-59 years for women. Pensionable age: 65 years and older for men and 60 years and older for women.

Figure 3.3



Glasgow City has one of the lowest proportions of ‘under 16s’ in its population, but also has the highest proportion of people of ‘working age’ compared to other West of Scotland councils. Conversely, nearby East Renfrewshire has a strikingly different population structure with a lower than average proportion of its population that is ‘working age’, but a higher than average proportion of ‘under 16s’.

There is almost double the proportion of Scottish women who are of ‘pensionable age’ compared to men (24% vs 14%). This is in part because the pensionable age for women (60 years of age) is five years younger than for men, but it also reflects the greater longevity of women. In Glasgow the proportions of men and women who are of ‘pensionable age’ are strikingly different: 22% of women compared to 12% of men.

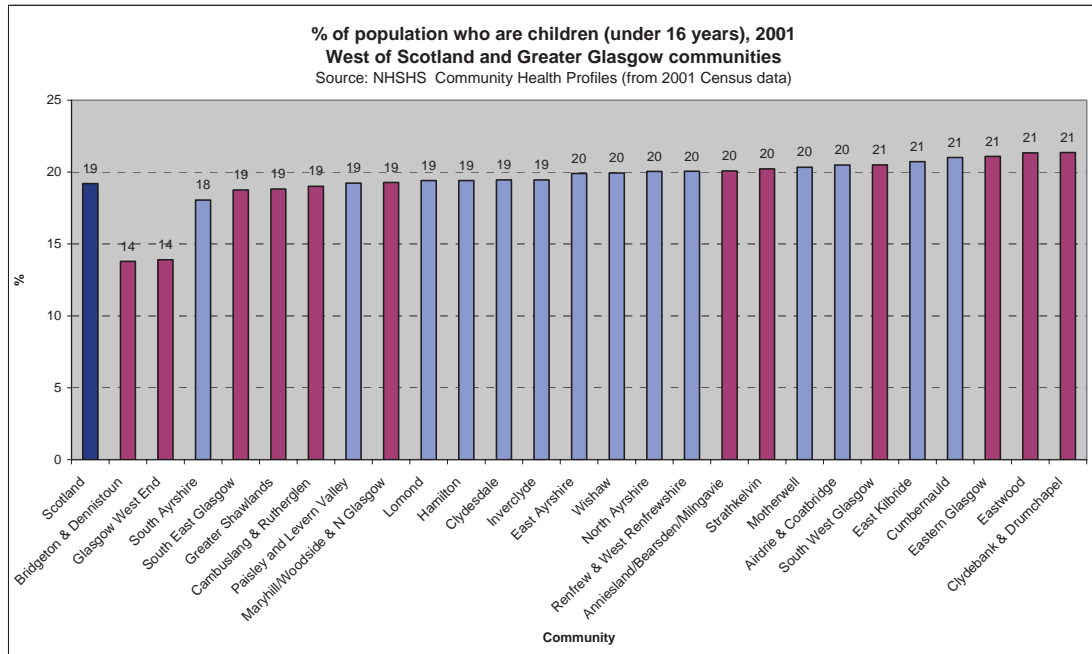
Population age structure by community and postcode sector

The population age structure within West of Scotland ‘communities’ⁱⁱ and postcode sectors can be summarised from Census data compiled in NHS Health Scotland’s Community Health and Well-being profiles².

The percentage of the Scottish population who were children (‘under 16’) in 2001 was 19% and the proportion of children in most West of Scotland communities varied only slightly from this national figure (Figure 3.4). However, two communities did stand out as having low proportions of children, Bridgeton & Dennistoun and Glasgow West End (both 14%).

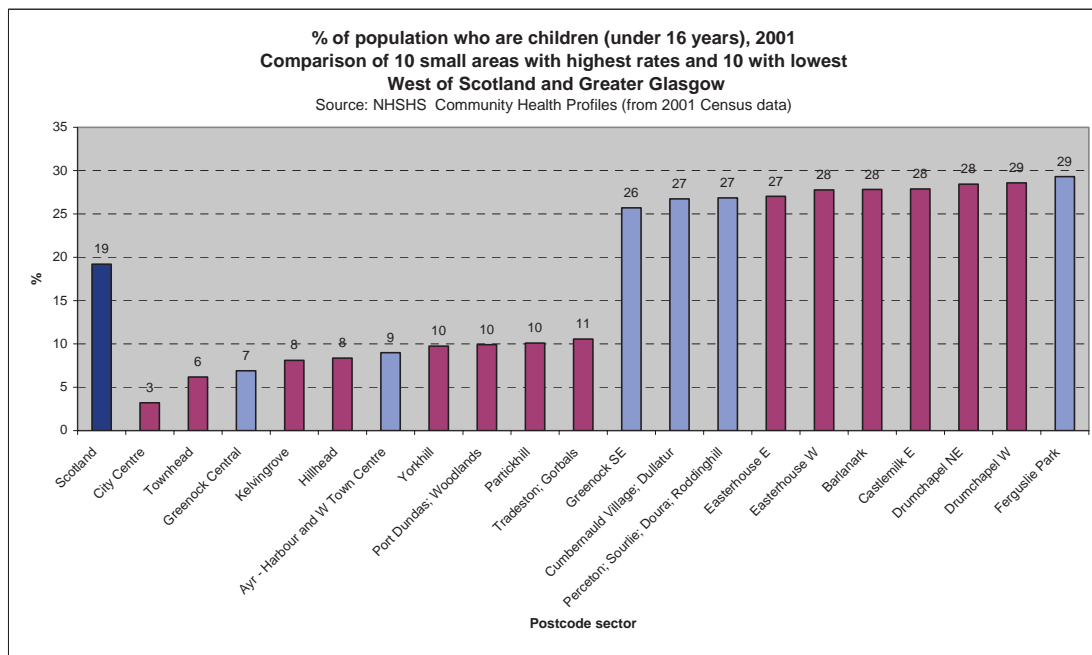
ⁱⁱ These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see ‘Preface to Chapters 2-12’.

Figure 3.4



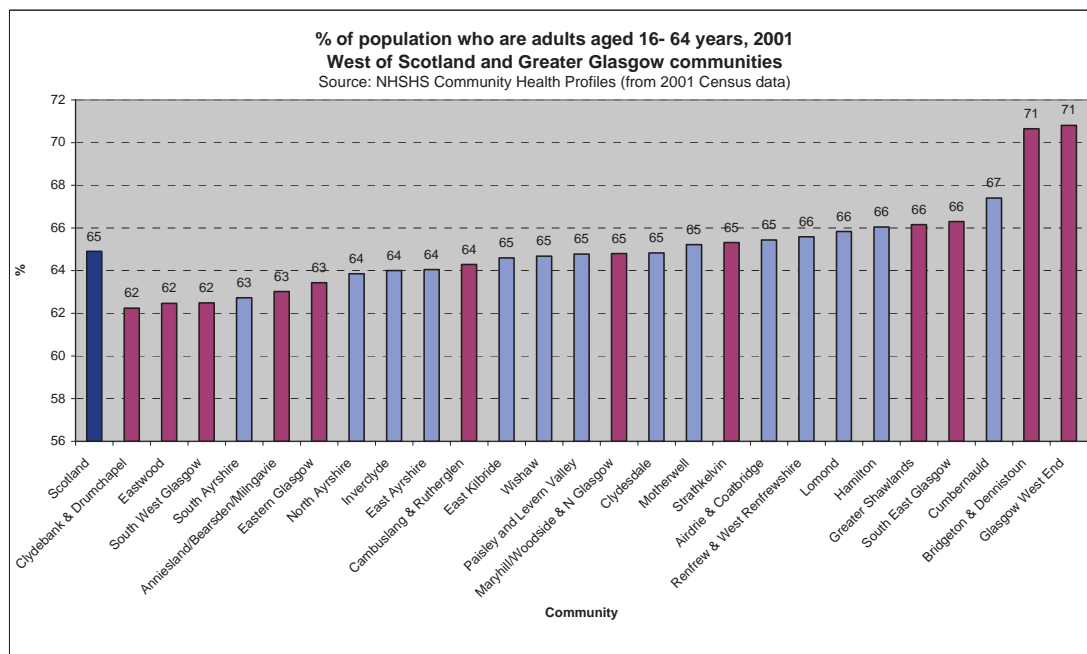
At the postcode sector level, there is greater variation. Figure 3.5 compares the ten postcode sectors in the West of Scotland with the highest proportions of children in their populations with the ten sectors with the lowest proportions. Unsurprisingly, in the sectors covering Glasgow City Centre only 3% of the population are children, and there are a handful of other areas where the proportion of children in the population is 10% or lower. The ten areas with the highest proportion of children tend, with two exceptions (Cumbernauld Village & Dullatur; Perceton, Scourlie, Doura & Roddinghill) to be among the more deprived parts of the West of Scotland.

Figure 3.5



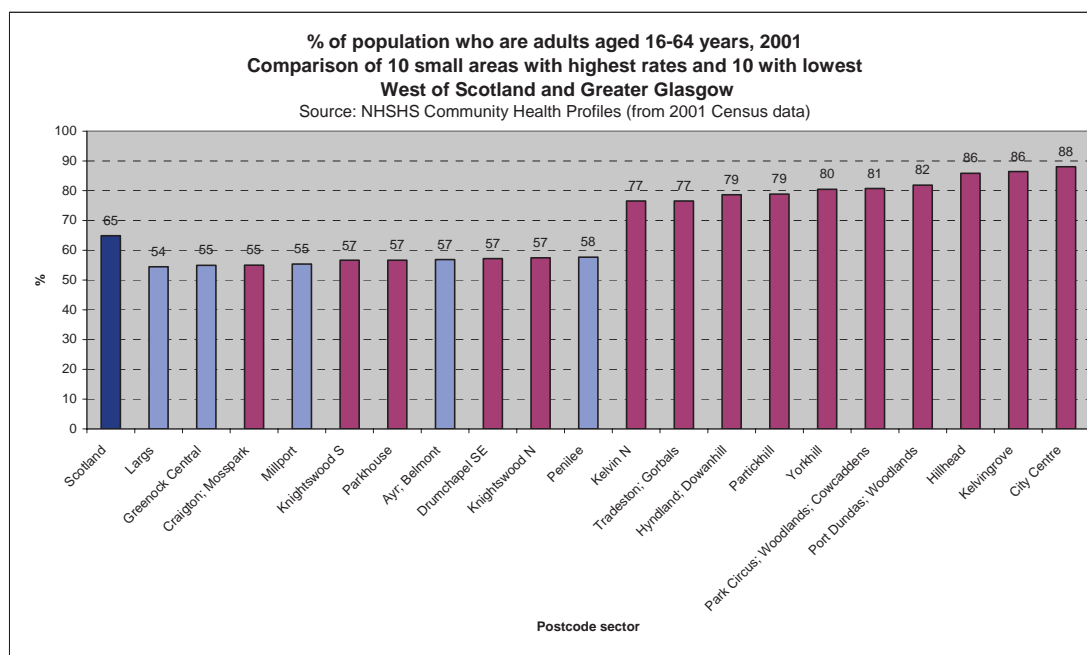
There are relatively small variations in the proportion of the population in the 16-64 age group comparing across communities in the West of Scotland (Figure 3.6). The lowest proportion of 16-64 year olds were in Clydebank & Drumchapel, Eastwood and South West Glasgow (all 62%), while the highest concentrations of this age group were in Bridgeton & Dennistoun and Glasgow West End (71%).

Figure 3.6



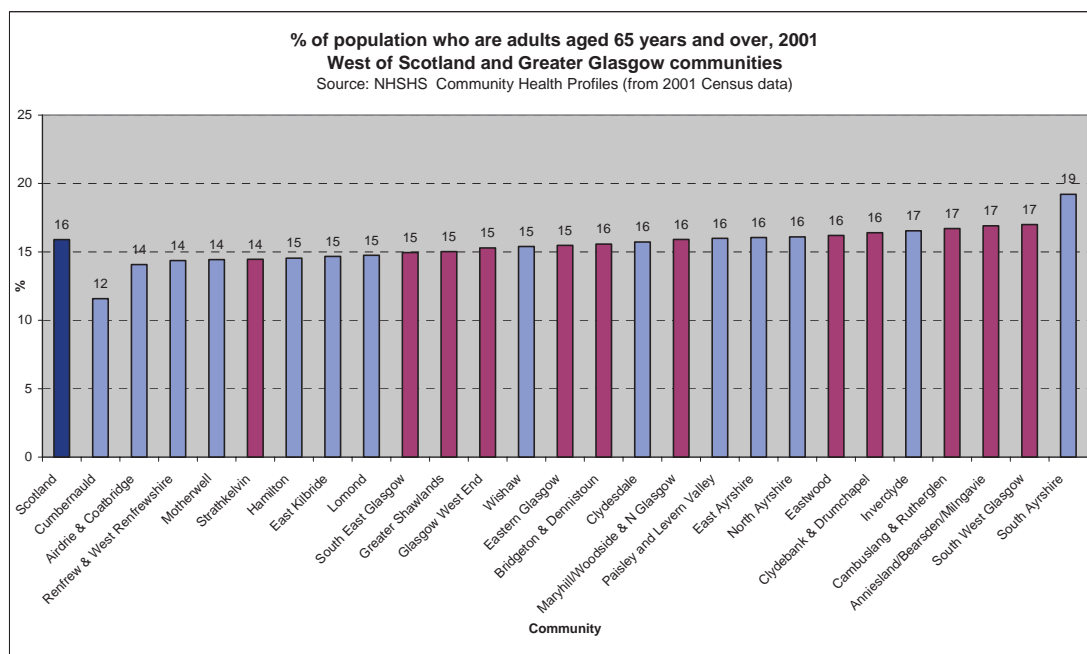
At the postcode sector level, there is a wider variation in the proportions of population who are adults aged 16-64 (Figure 3.7). It is notable, however, that the ten areas with the highest rates of 16-64 year olds are all in parts of Glasgow that have either undergone recent regeneration (e.g. Tradeston & Gorbals; City Centre) or are part of the West End of Glasgow (e.g. Hyndland, Hillhead, Kelvingrove). These areas tend to have higher house prices, are favoured by younger adults, including students, and appear to attract fewer families with children.

Figure 3.7



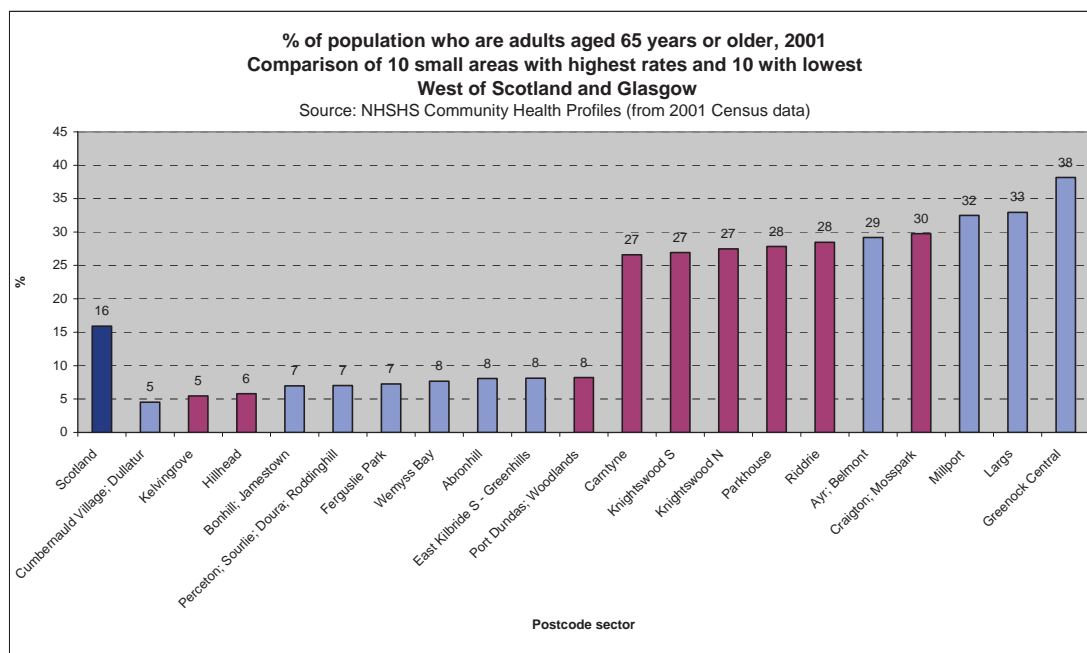
There was relatively little variation in the proportion of older persons (aged 65 or over) in the population across the West of Scotland communities (Figure 3.8). The two extremes are Cumbernauld with the lowest percentage (12%) and South Ayrshire with the highest percentage (19%).

Figure 3.8



Across postcode sectors in the West of Scotland, much wider variations are apparent (Figure 3.9). Of the ten areas with the lowest proportions of elderly, none had more than 8% of elderly people in the population, while in the ten areas with the highest proportions, all ten had populations where more than 25% were 65 or over.

Figure 3.9



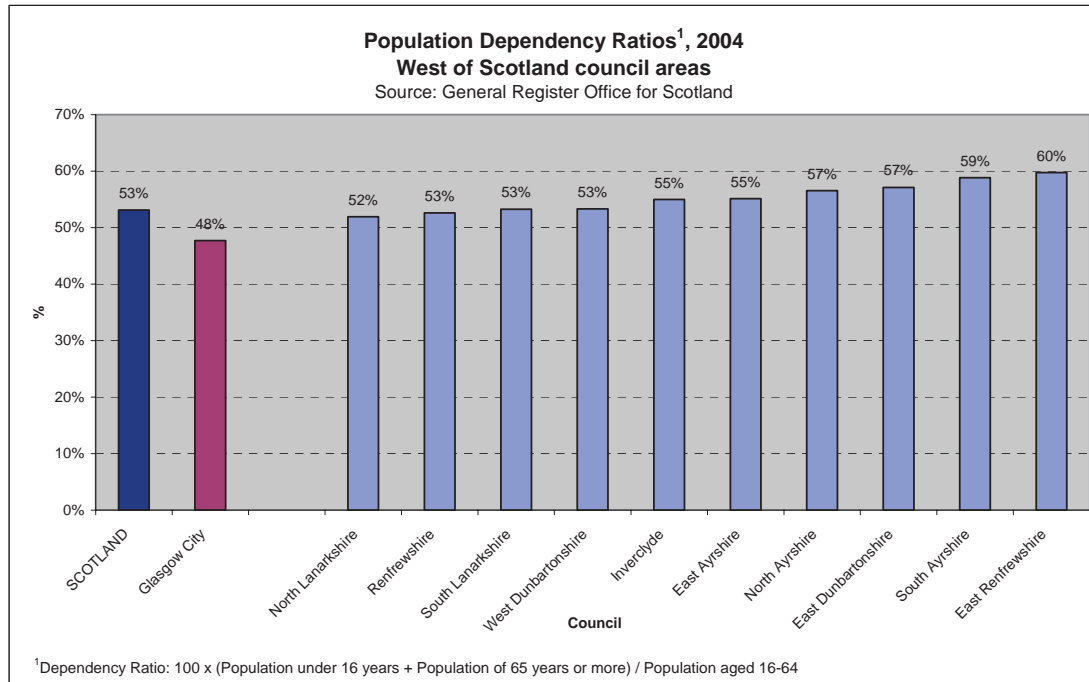
Dependency ratios

Dependency ratios – which can loosely be described as the young and old as a proportion of working age adults in a populationⁱⁱⁱ – can be calculated for Scotland and for each West of Scotland council^{iv} (Figure 3.10). For Scotland as a whole in 2004, the dependency ratio is 53%, but it varies greatly within the West of Scotland, from 60% in East Renfrewshire to 48% in Glasgow. A lower ratio in theory reflects lower economic dependency. However, the measure does not take into account those who are of working age but economically inactive due to illness, incapacity or other reasons.

ⁱⁱⁱ In econometric terms, it is the ratio of the economically dependent part of the population, to the productive part, where the economically dependent part is recognised to be children, who are too young to work, and adults of pensionable age, while the productive part of the population are those of working age. In theory this gives a dependency ratio = 100 x ('under 16' + 'pensionable') / 'working age'.

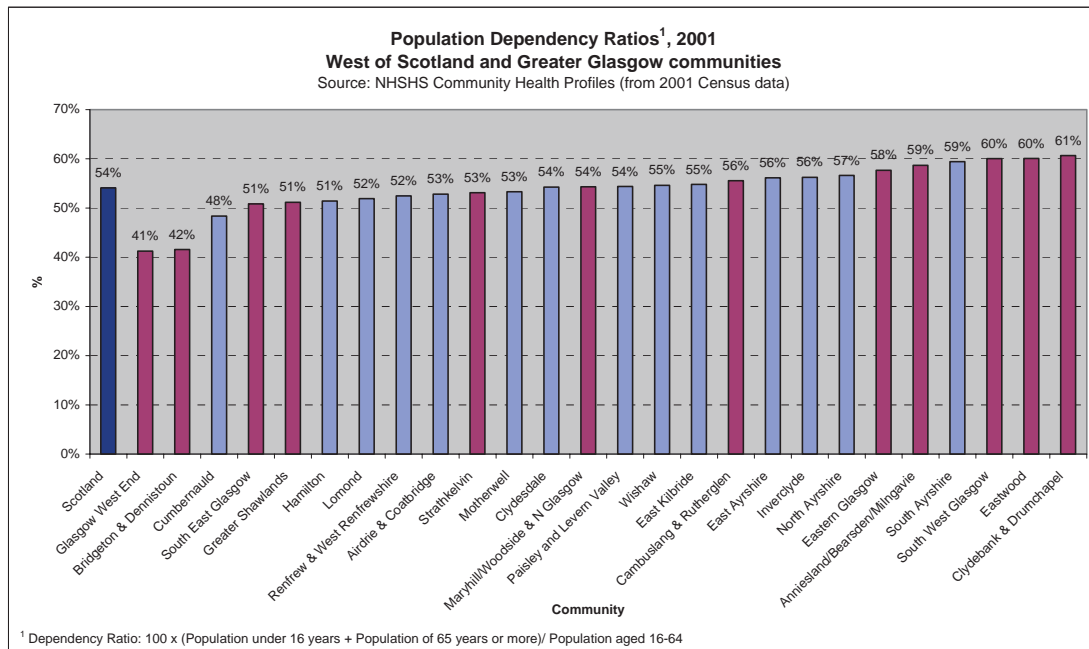
^{iv} As applied here, the dependency ratio = 100 x ('population under 16 years' + 'population of 65 years or more') / 'population aged 16-64'.

Figure 3.10



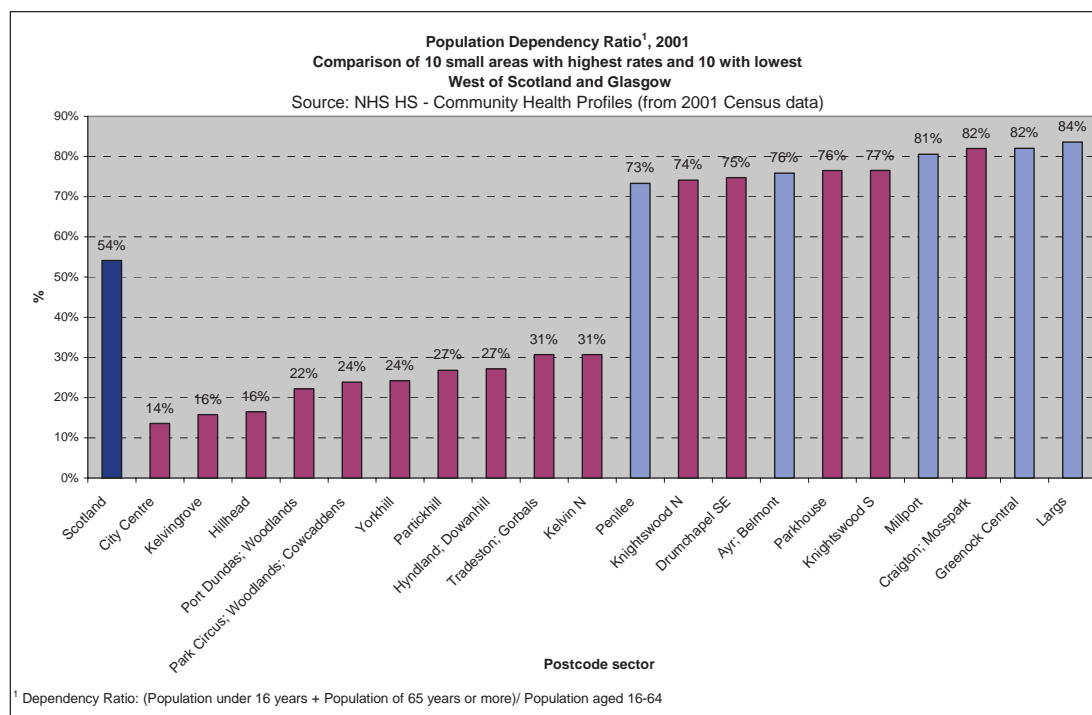
Dependency ratios at a community level (from the Community Profiles) varied from 41% and 42% respectively in Glasgow West End and Bridgeton & Dennistoun to 61% in Clydebank & Drumchapel (Figure 3.11).

Figure 3.11



At a postcode sector level, the differences between the areas with the highest and lowest proportions are large (Figure 3.12). The ten areas in the West of Scotland with the lowest dependency ratios were all in Glasgow and are areas with lower than average proportions of children and higher than average proportions of working age adults. The areas with the highest dependency ratios tend to also have higher than average elderly populations.

Figure 3.12



Projections of future dependency ratios at a council level are included in the next section.

3.4 Population change and population projections

Population change

The General Register Office for Scotland (GROS) has produced tables estimating population changes, and the sub-components of change such as migration, births and deaths, over the period 1994-2004¹ (Table 3.1). The analysis shows that over this ten-year period there was net migration^v into Scotland but that overall the population dropped by 0.5%. The pattern within the West of Scotland is quite mixed. In East Renfrewshire the population has increased by 3.4% as a result of inward migration and 'natural growth' (births exceeding deaths) over the period. Glasgow City shows the greatest overall drop in population (34,590), two thirds of which is accounted for by outward migration and a third by a death rate that has exceeded the birth rate. Inverclyde shows the largest overall population decline – 7.7%, over the period.

^v Includes movements to/from armed forces and an adjustment for a recurring unattributable population change based on the 2001 Census, which is assumed to be unmeasured migration.

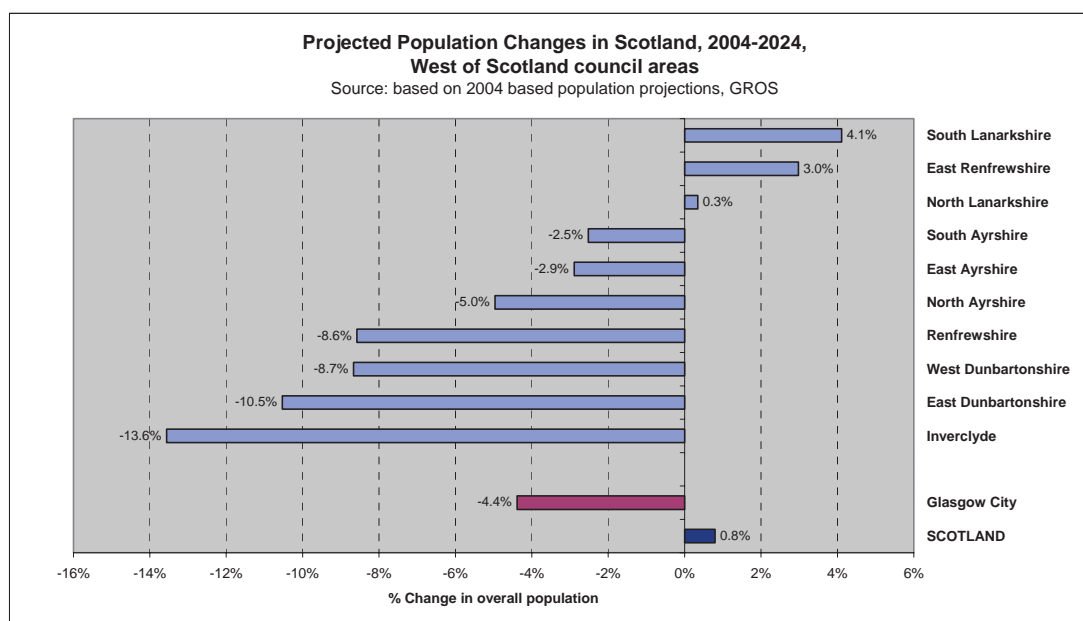
Table 3.1

Components of population change, West of Scotland council areas, 1994-2004								
Source: General Register Office for Scotland								
	Estimated population 30 June 1994	Births	Deaths	Natural change	Estimated net civilian migration and other changes	Estimated population 30 June 2004	Population change	
							Number	%
SCOTLAND	5,102,210	557,631	589,385	-31,754	7,944	5,078,400	-23,810	-0.5
Glasgow City	612,260	70,437	81,191	-10,754	-23,836	577,670	-34,590	-5.6
East Renfrewshire	86,660	9,713	8,567	1,146	1,804	89,610	2,950	3.4
South Lanarkshire	305,220	33,229	33,845	-616	806	305,410	190	0.1
North Lanarkshire	323,830	39,121	35,317	3,804	-4,844	322,790	-1,040	-0.3
North Ayrshire	137,550	14,881	16,405	-1,524	-6	136,020	-1,530	-1.1
South Ayrshire	113,550	10,697	14,830	-4,133	2,433	111,850	-1,700	-1.5
East Dunbartonshire	109,540	10,643	9,933	710	-3,700	106,550	-2,990	-2.7
Renfrewshire	175,460	19,717	20,557	-840	-4,010	170,610	-4,850	-2.8
East Ayrshire	123,250	13,068	14,869	-1,801	-1,729	119,720	-3,530	-2.9
West Dunbartonshire	96,780	10,717	11,801	-1,084	-3,726	91,970	-4,810	-5.0
Inverclyde	89,320	9,277	11,641	-2,364	-4,526	82,430	-6,890	-7.7

Population projections

The 2004 based population projections from the General Register Office for Scotland³ forecast that Scotland's population will rise by 0.8% between 2004 and 2024 (see Figure 3.13), resulting in a projected population of around 5,119,000 (40,000 more than at present). However, the actual period of population growth is between 2004 and 2014, after which the Scottish population is predicted to reduce. The majority of West of Scotland councils are predicted to lose population up to 2024 with the largest decreases in Inverclyde (-13.6%) and East Dunbartonshire (-10.5%). It is predicted Glasgow City will have lost 4.4% of its population by 2024, or around 25,000 people overall. Small population increases are predicted for South Lanarkshire (+4.1%), East Renfrewshire (+3.0%) and North Lanarkshire (+0.3%).

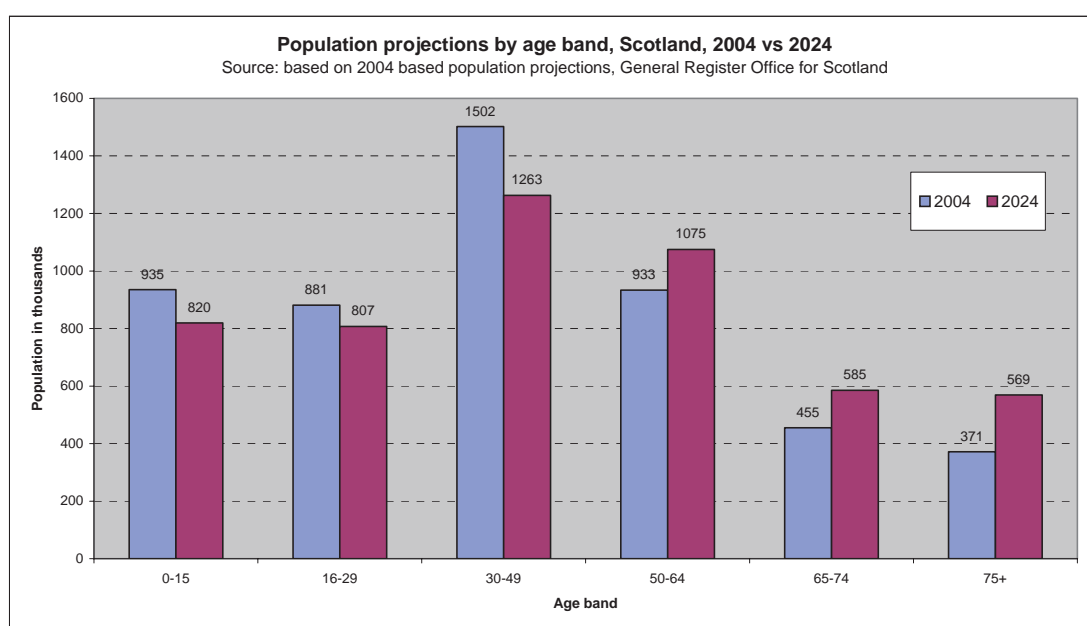
Figure 3.13



Detailed projections by age and sex are available from GROS. The following graphs are derived from these projections. The Figure below shows projected changes across six age bands at a Scottish level between 2004 and 2024 (Figure 3.14). The predictions for Scotland confirm a number of now well-known patterns.

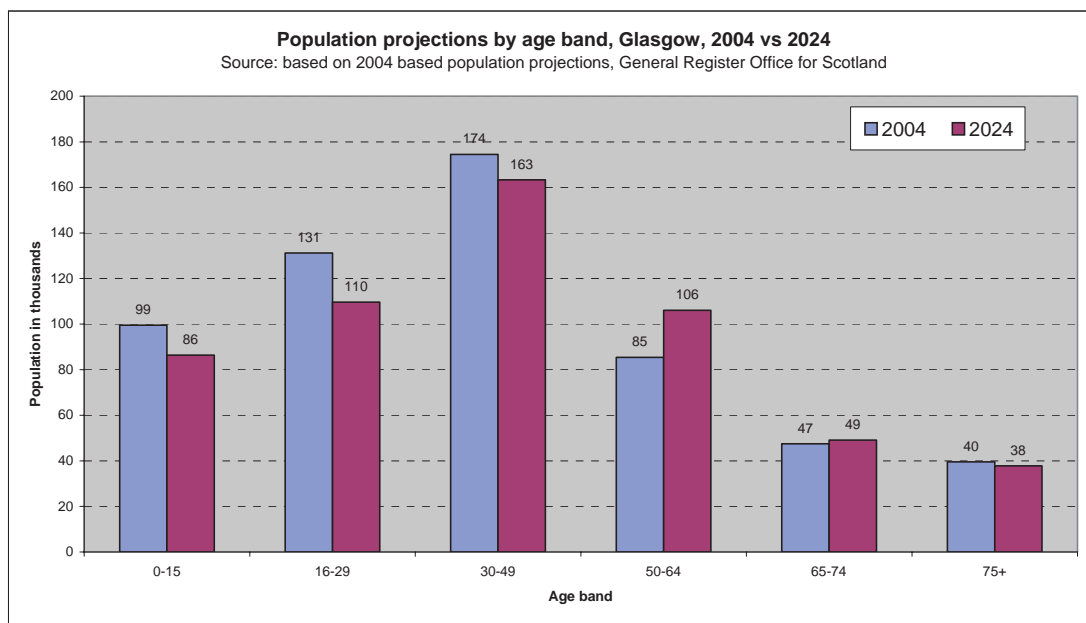
- Our population is ageing and the number of older people will increase markedly (nearly 200,000 more in 75+ population and 130,000 more in 65-74 years age band).
- Our ‘working age’ population will get older (140,000 more in 50-64 age group) but will also shrink (overall 171,000 less in 16-64 age group).
- Overall the number of children under 16 in the population will shrink dramatically by 115,000 or by 12%.

Figure 3.14



For Glasgow (see Figure 3.15), a slightly different set of population changes are predicted. The number of children under 16 is set to decrease by 13,000 or 13%. There are large drops predicted in the 16-49 age bands, representing a reduction of 33,000 people, but the population aged 50-64 is set to grow by 24%. Unlike the overall Scottish pattern, the population in older age groups (65 years and above) will remain relatively stable, rather than increasing as elsewhere, which in part may reflect the poorer life expectancy in areas of Glasgow.

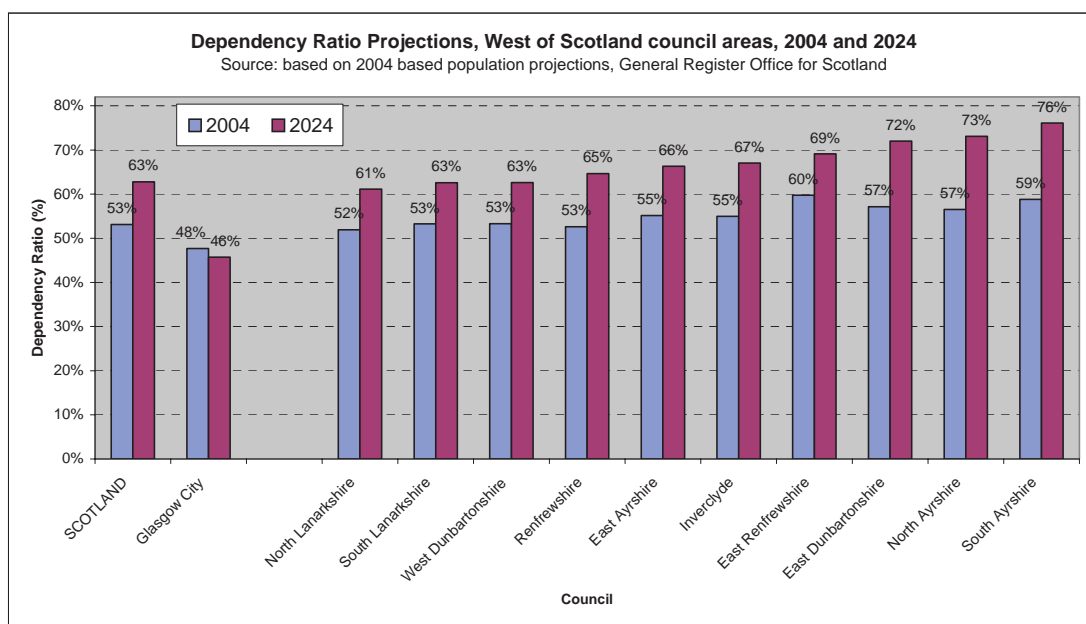
Figure 3.15



Projections of dependency ratios

The population projections allow a calculation of changes in dependency ratios^{vi} over the same period (2004-2024). For Scotland (see Figure 3.16) the projections imply an increase in the dependency ratio for the country as a whole and this is mirrored in most of the West of Scotland councils with the exception of Glasgow, which maintains a virtually unchanged position of having a relatively low dependency ratio up to 2024.

Figure 3.16

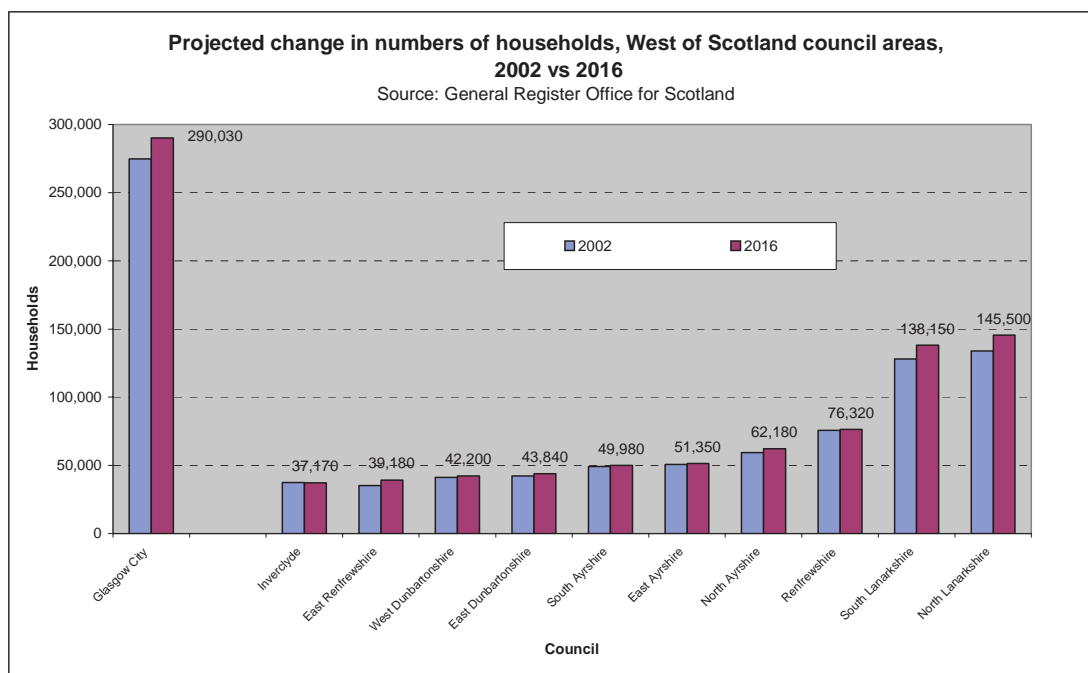


^{vi} As previously, the dependency ratio = 100 x ('population under 16 years' + 'population of 65 years or more') / 'population aged 16-64'.

3.5 Household projections

Across Scotland, the number of households is projected to increase by 7% over the period 2002-2016 according to recently published GROS forecasts⁴. Within the West of Scotland, the largest growth will be in East Renfrewshire (11%), while in Inverclyde the number of households is forecast to reduce by 1%. In Glasgow City a 6% increase in households is forecast, which equates to the number of households in Glasgow rising by 15,300 to a total of 290,030 (Figure 3.17)^{vii}.

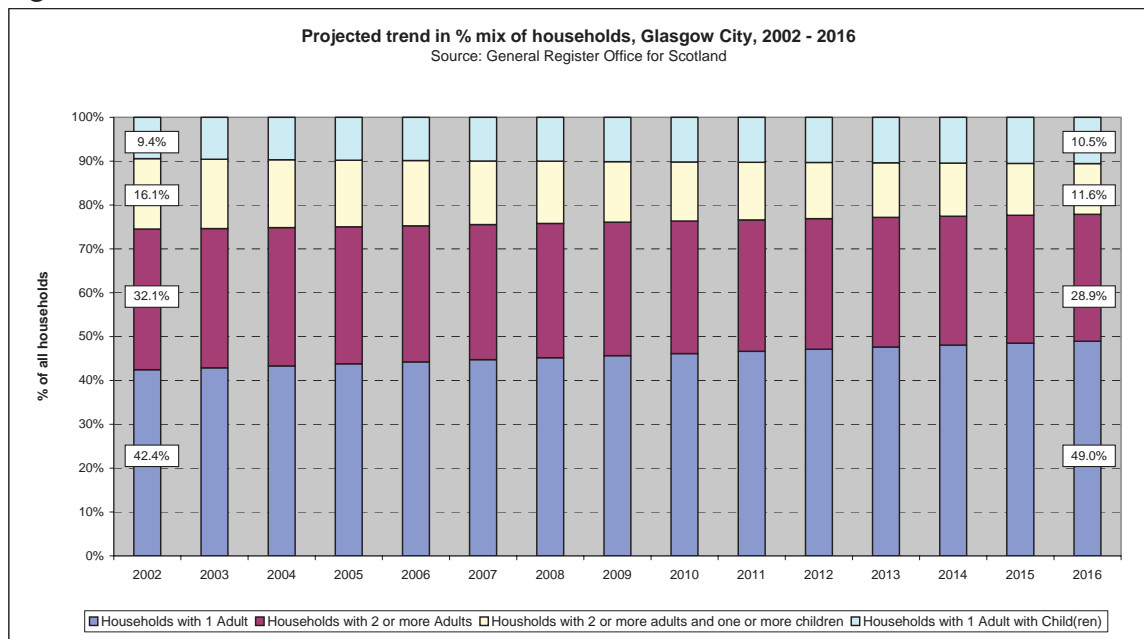
Figure 3.17



These projections also predict changes in the relative proportions of different types of households (see Figure 3.18). In Glasgow City, single adult households with no children will rise as a proportion of all households will rise from 42.4% in 2002 to 49% in 2016. The percentage of ‘households with two or more adults and children’ is projected to decrease from 16.1% in 2002 to 11.6% by 2016. Over the same period the percentage of lone parent households is projected to increase marginally from 9.4% to 10.5% of all households.

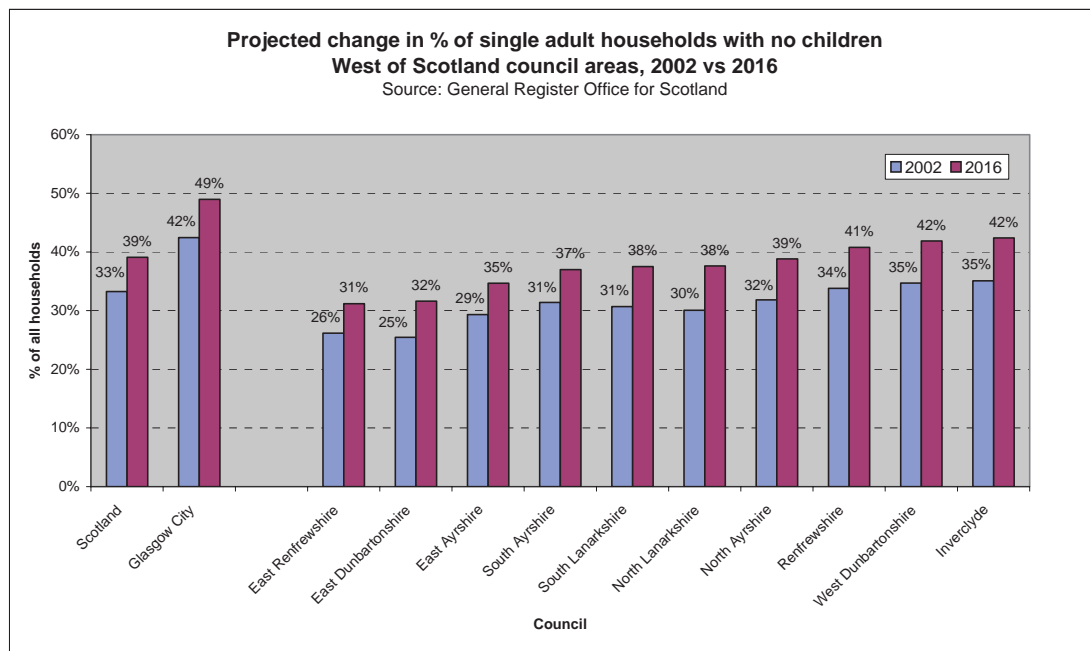
^{vii} Please note that the household numbers displayed above each set of columns are for 2016.

Figure 3.18



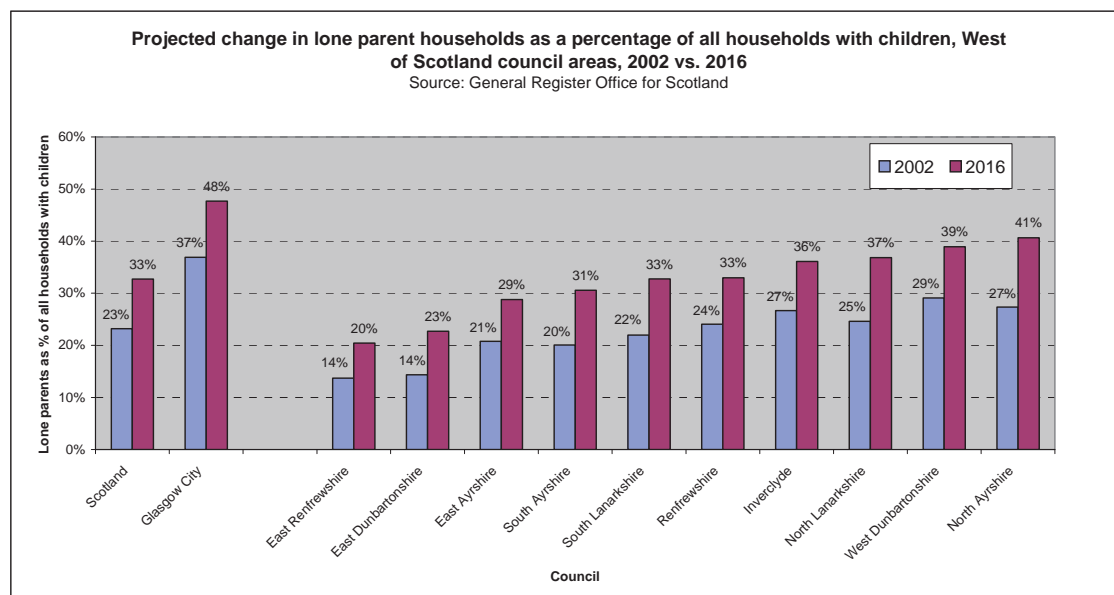
Single adult households with no children are predicted to increase significantly across the whole of Scotland. Over the period 2002 to 2016, the GROS forecasts that nationally the figure for single adult households with no children expressed as a percentage of all households will rise from 33% in 2002 to 39% in 2016 (see Figure 3.19). In Glasgow the predicted rise suggests that, in 2016, single adult households with no children will make up 142,000 out of the 290,000 households in the city.

Figure 3.19



Nationally, lone parent households^{viii} as a percentage of all households are projected to increase by 12%. The GROS' household projections also allow a calculation of lone parent households expressed as a percentage of all households with children (see Figure 3.20). Based on these projections, the 2002 national figure of 23% is predicted to increase to 33% by 2016. For Glasgow, the equivalent figure for 2002 is 37% and this is forecast to rise to 48% by 2016. All the West of Scotland councils show similar rises. However, Glasgow has by far the largest proportion of current and projected lone parent households.

Figure 3.20

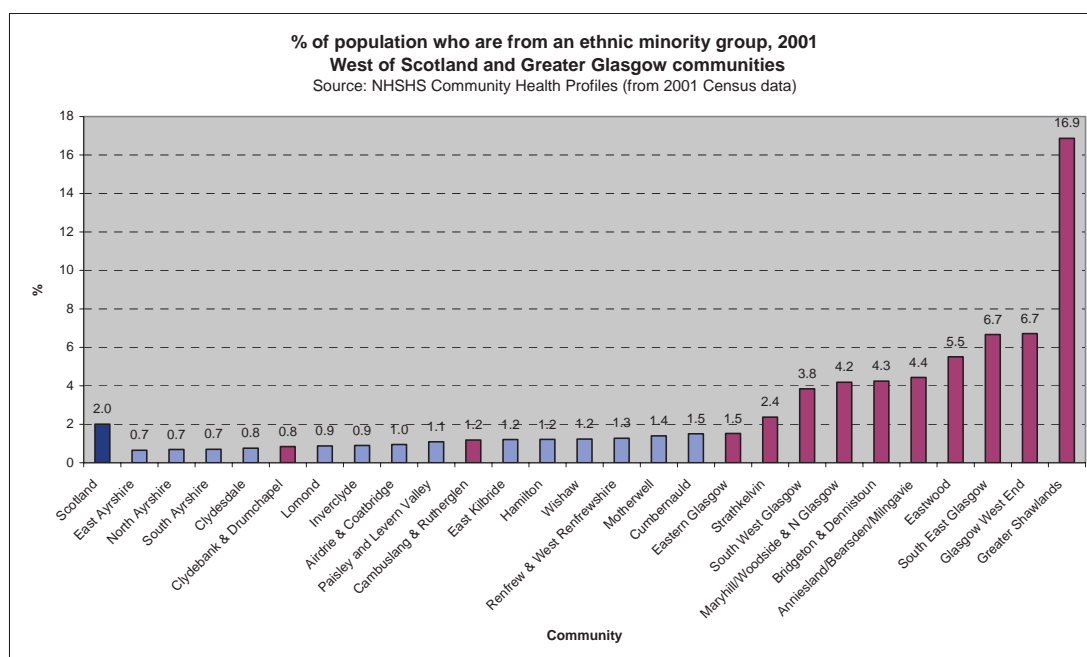


3.6 Minority ethnic population

According to the 2001 Census, only 2% of the Scottish population are from a minority ethnic group. However, there are large variations across the West of Scotland and particular parts of Glasgow have much higher concentrations of ethnic minorities. In fact, most Glasgow communities have a larger proportion of persons from an ethnic minority group than the Scottish average. In South East Glasgow and Glasgow West End over 6% of the population are from an ethnic minority, while in Greater Shawlands the figure rises to nearly 17% (Figure 3.21).

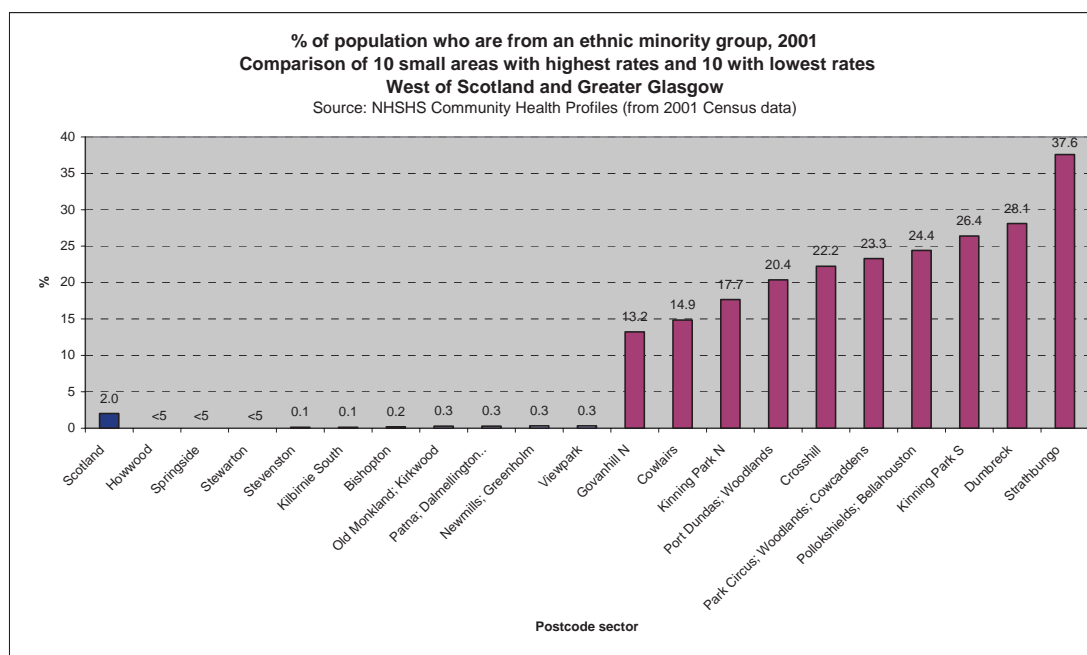
^{viii} Please note the definition of lone parent households used here differs from that used in Chapter 5: Social environment, which refers to data drawn from NHS Health Scotland's Community Profiles.

Figure 3.21



At a postcode sector level, the variation in the proportions of the population who are from minority ethnic groups in each area across the West of Scotland is large (Figure 3.22). In some postcode sectors, less than five people were recorded as coming from an ethnic minority, while in Glasgow minority ethnic groups are concentrated particularly in areas of the West End, Springburn and parts of the south side of Glasgow.

Figure 3.22



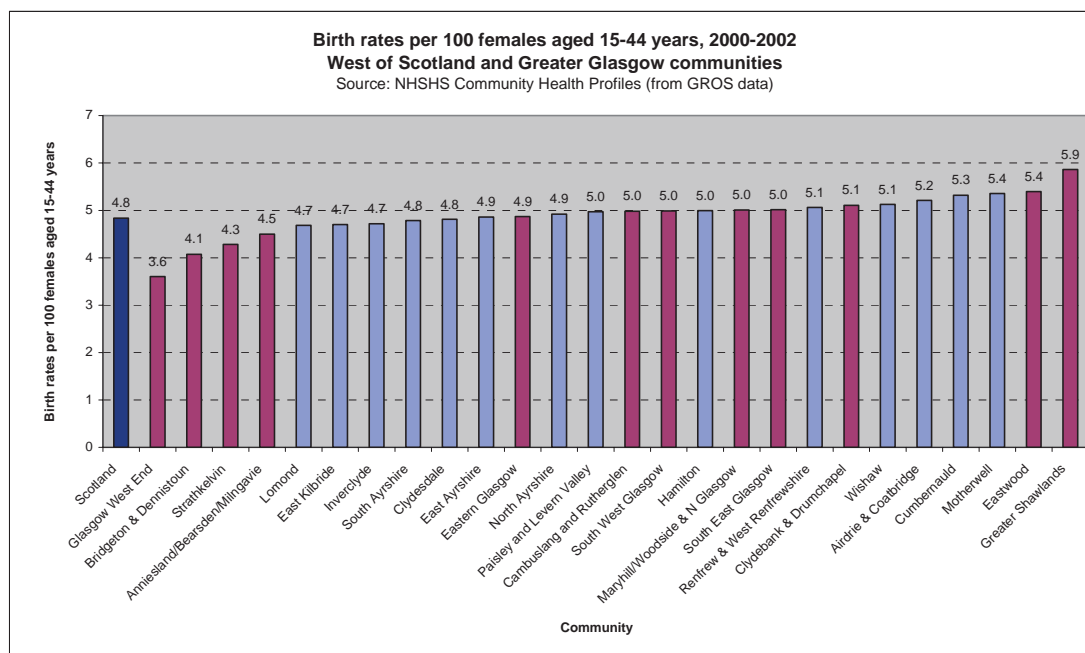
Glasgow's asylum seeker and refugee population

It is worth noting also that the number of asylum seekers and refugees living in Glasgow has risen rapidly in recent years with the total number standing at 12,500 in December 2004⁵. Currently children from asylum seeking and refugee families make up approximately 6% of the city's under-five population.

3.7 Births

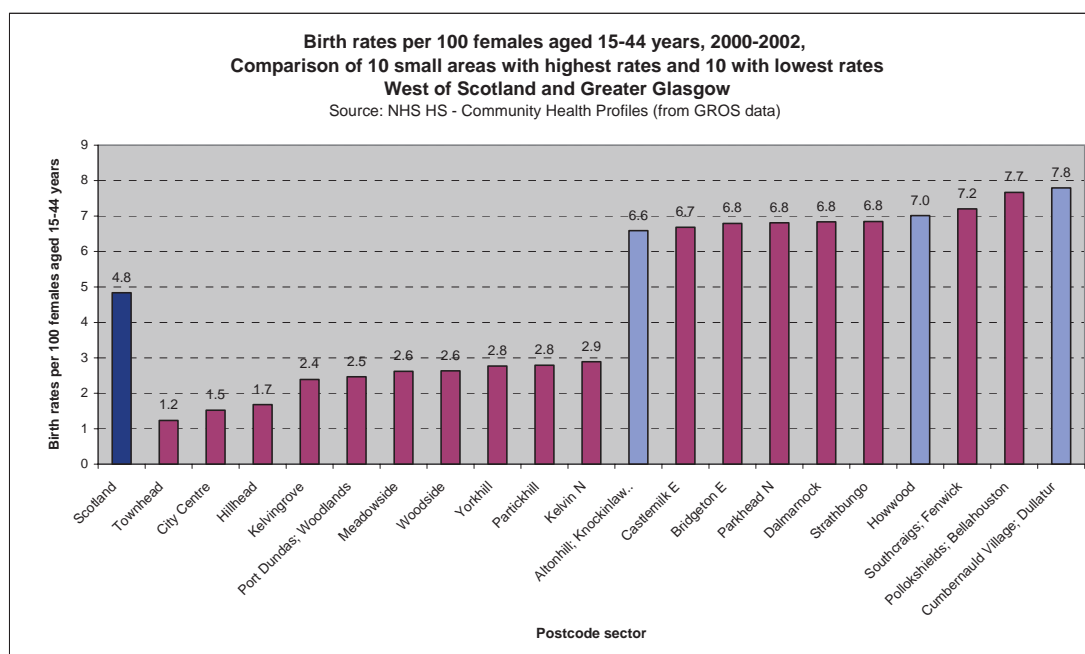
The previous chapter commented on the long-term downward trend in the city's birth rate. In this section we examine the variation in birth rates across West of Scotland communities (Figure 3.23). In Scotland over the period 2000-2002, the birth rate was 4.8 per 100 women aged 15-44, while across the West of Scotland communities the birth rate varied from 3.6% in Glasgow West End to 5.9% in Greater Shawlands.

Figure 3.23



At a postcode sector level, not surprisingly, the variation in birth rates is far greater (Figure 3.24). The lowest birth rates occur in parts of the West End and in the Townhead and City Centre areas.

Figure 3.24



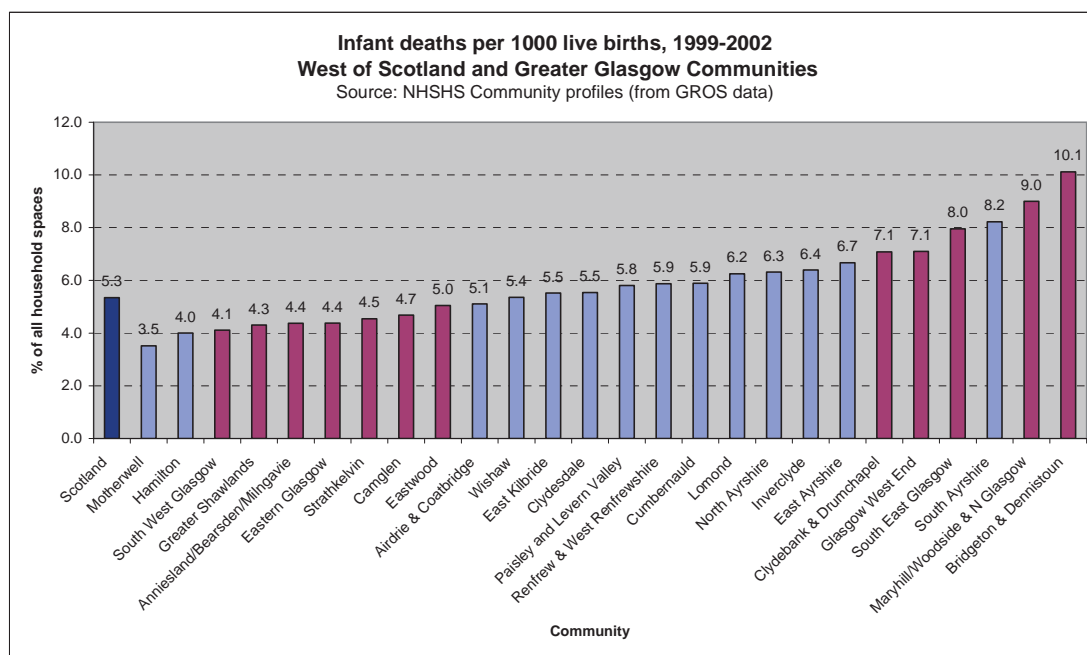
The reasons for this require further study, but the affordability of housing for young families and the type of housing available in these areas – much of which is designed for, or at least more attractive to, single people or couples without children – is likely to be important. The areas with the highest birth rates are quite mixed, including parts of the East of Glasgow (Bridgeton E, Parkhead N, Dalmarnock), the Southside (Strathbungo, Pollokshields & Bellahouston) and areas outside Glasgow that are within easy commuting distance (Howwood, Cumbernauld Village).

3.8 Deaths

Infant deaths

In the previous chapter the large fall in infant mortality rates over the last 150 years was noted. In this section we examine the variation in infant death rates across the West of Scotland. The rate of infant deaths across West of Scotland communities in the period 1999-2002 varied quite markedly from 3.5 (per 1,000 live births) in Motherwell to 10.1 in Bridgeton & Dennistoun (Figure 3.25). Although the actual numbers of deaths underlying these rates are low, because infant deaths are so relatively rare now, some of the differences between communities may be worthy of further investigation.

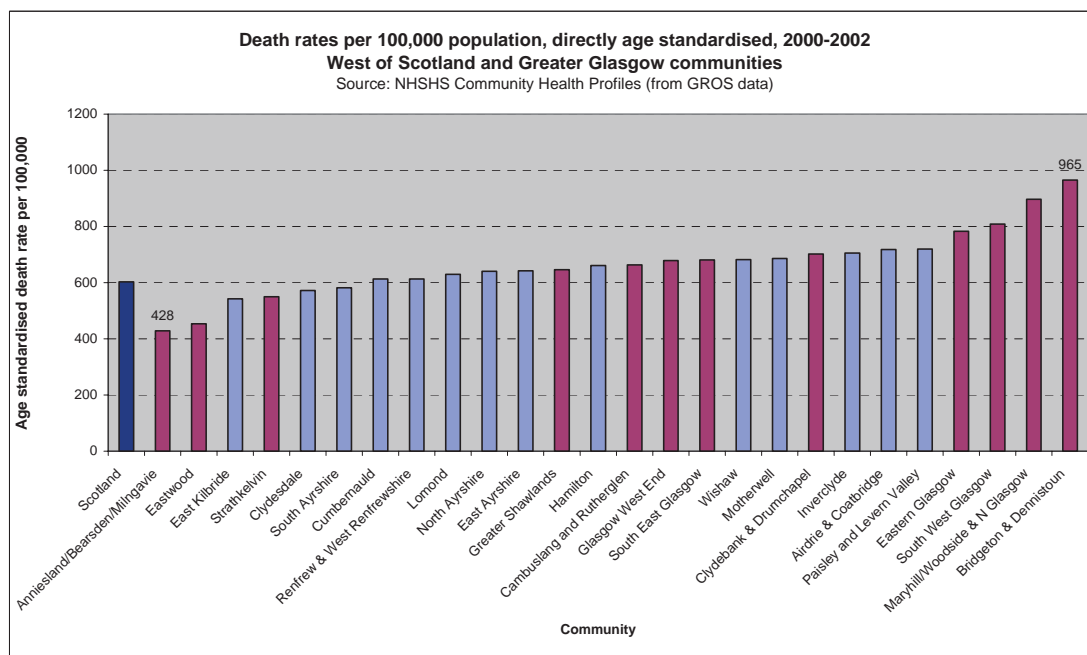
Figure 3.25



Deaths

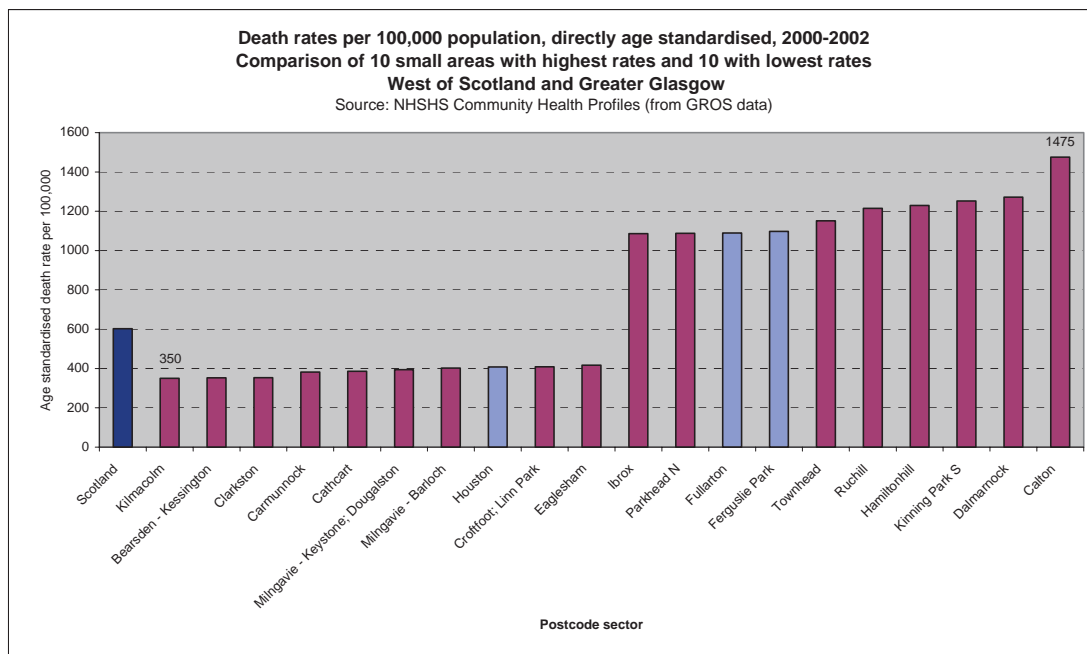
Across the West of Scotland there was a two-fold variation in death rates in 2000-2002 (see Figure 3.26), ranging from 428 and 454 per 100,000 in Anniesland, Bearsden & Milngavie and Eastwood, respectively, to more than double these rates in Maryhill, Woodside & North Glasgow (897 per 100,000) and Bridgeton & Dennistoun (965 per 100,000). From this it is clear that Greater Glasgow not only has the communities with the highest mortality rates in Scotland, but also those with the lowest mortality.

Figure 3.26



At a postcode sector level the differences are magnified further with three- to four-fold variations in mortality between the ten areas of lowest mortality and the ten of highest mortality. Of the twenty areas in this analysis of extremes, only three lie outside Greater Glasgow, emphasising the huge polarity in health that exists across the city and often between adjacent areas. In the five areas with the highest mortality rates, it is double the Scottish average.

Figure 3.27



Death trends

Despite Glasgow's well-recorded poor health status, the trend in mortality for those aged 15-74 is favourable for both males and females, as Figures 3.28 and 3.29 show. The key issue, however, is that Glasgow's mortality rate is not reducing at the same rate as Scotland's, and the excess mortality in Glasgow compared to Scotland has actually increased over the last 30 years among men and women.

Figure 3.28

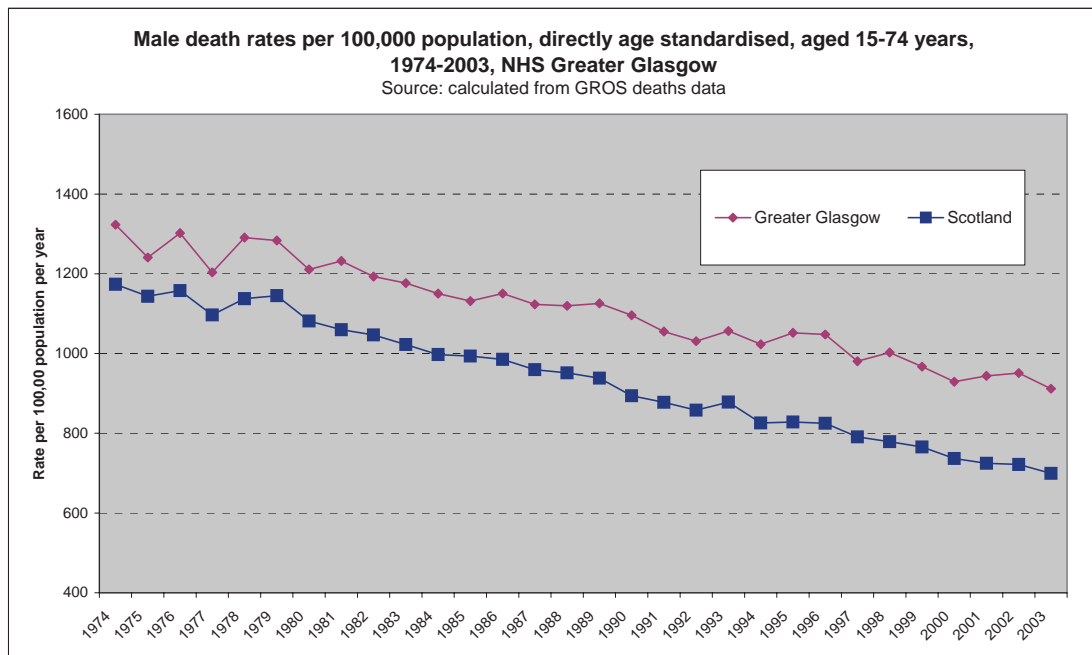


Figure 3.29

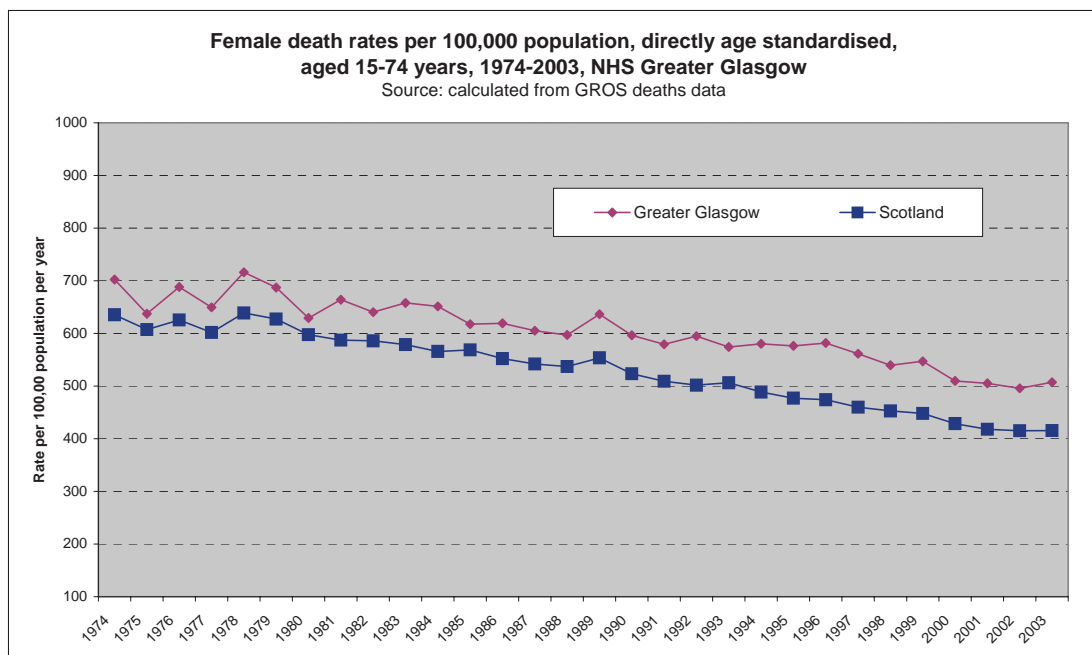
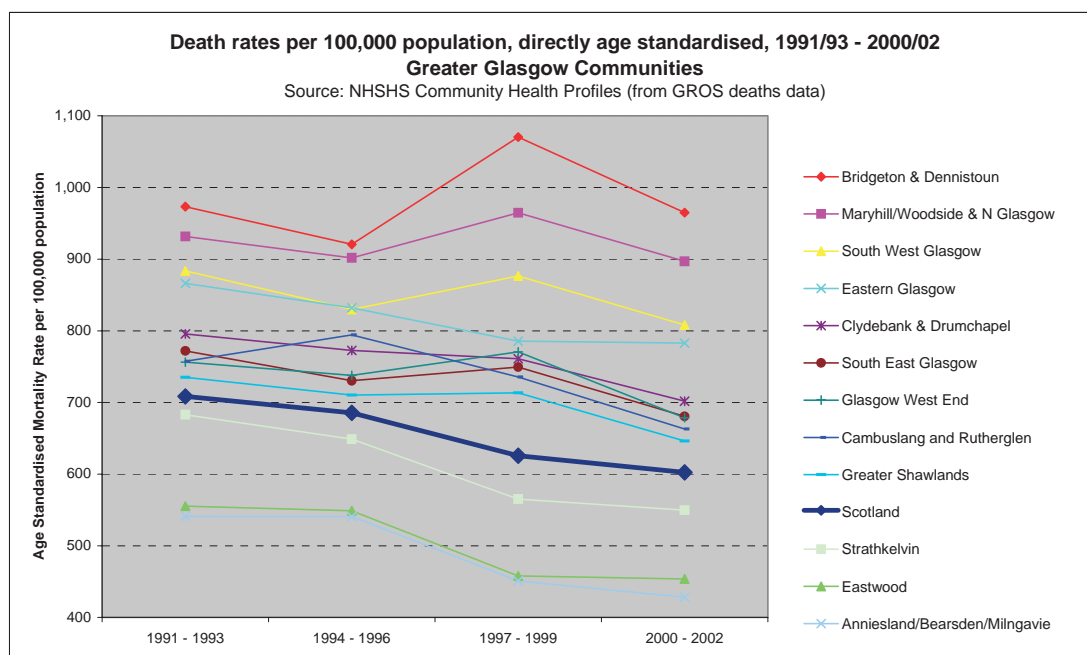


Figure 3.30, which displays the mortality trend for communities within Greater Glasgow over the last ten years, highlights the varied health trends within the region over this period. Across Scotland there was a 15% reduction in mortality between 1991/93 and 2000/02. However, while the mortality reductions in some parts of Greater Glasgow exceed this (-21% in Anniesland, Bearsden & Milngavie), in other communities the reductions have been very modest (-4% in Maryhill, Woodside & North Glasgow; -1% in Bridgeton & Dennistoun). It is also clear from the graph that, because of these differential reductions in mortality, the mortality gap between the communities with the highest and lowest mortality has increased.^{ix}

Figure 3.30



3.9 Life expectancy

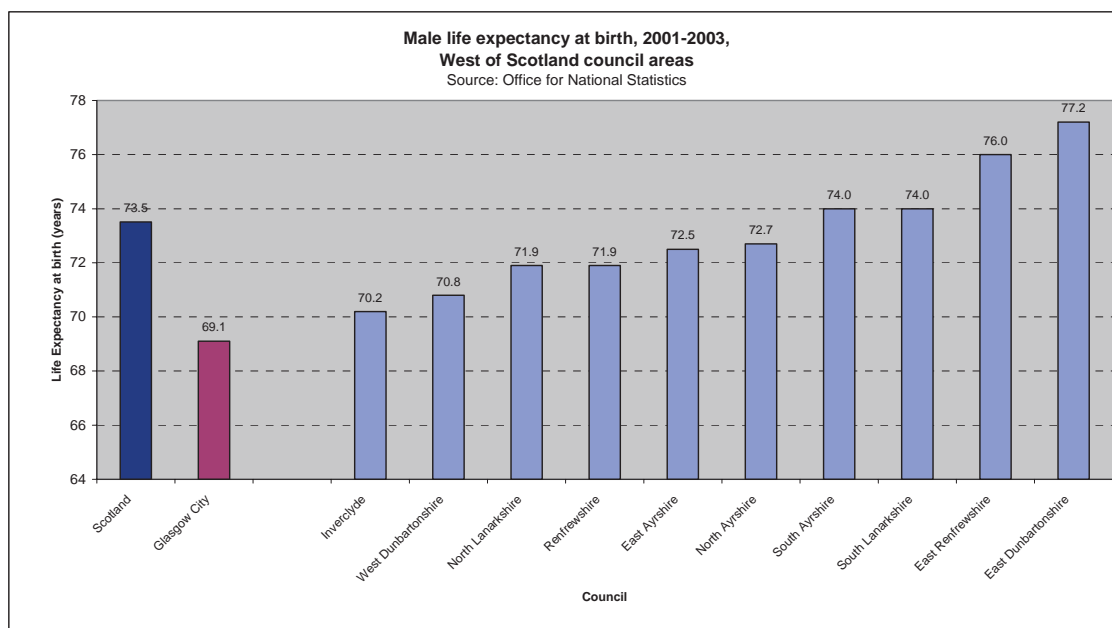
In this section we examine recent trends and patterns in life expectancy in the West of Scotland (at a council, community and postcode sector level), trends in life expectancy by deprivation and patterns of healthy life expectancy.

Life expectancy at a council level

Male life expectancy at birth in Glasgow was most recently calculated as 69.1 years⁶ (see Figure 3.31), four years less than the Scottish average and eight years short of the life expectancy in East Dunbartonshire (77.2 years).

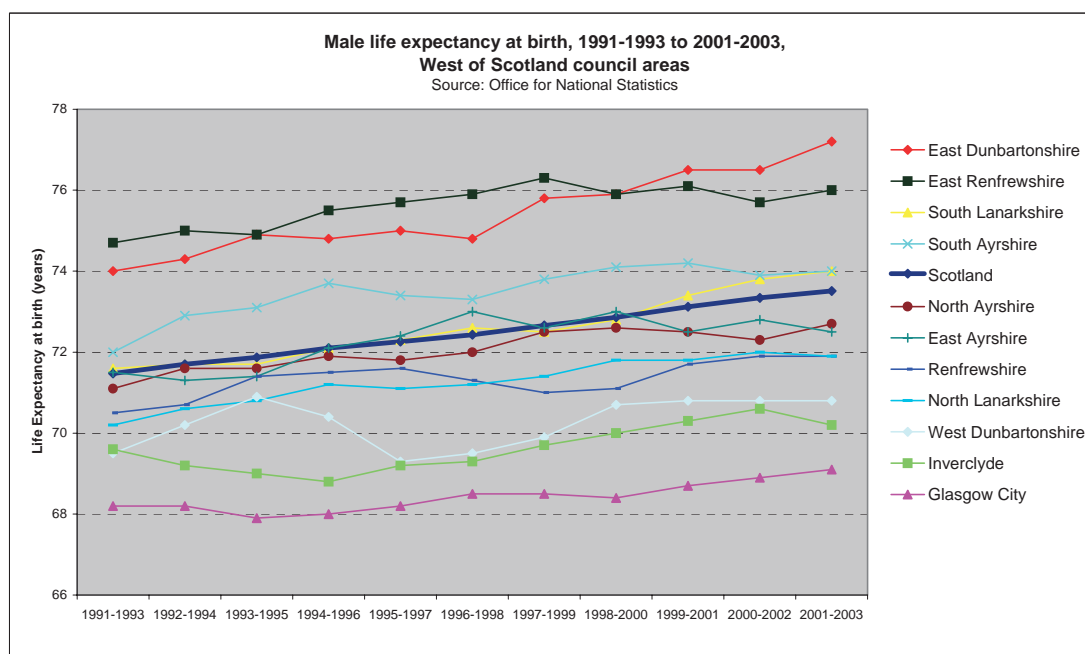
^{ix} Note that there are major differences in the definitions and calculation methods relating to the figures presented in Figures 3.28 and 3.29, and those in 3.30. Thus, the rates in the two sets of graphs are not directly comparable. All definitions are included in Appendix 1.

Figure 3.31



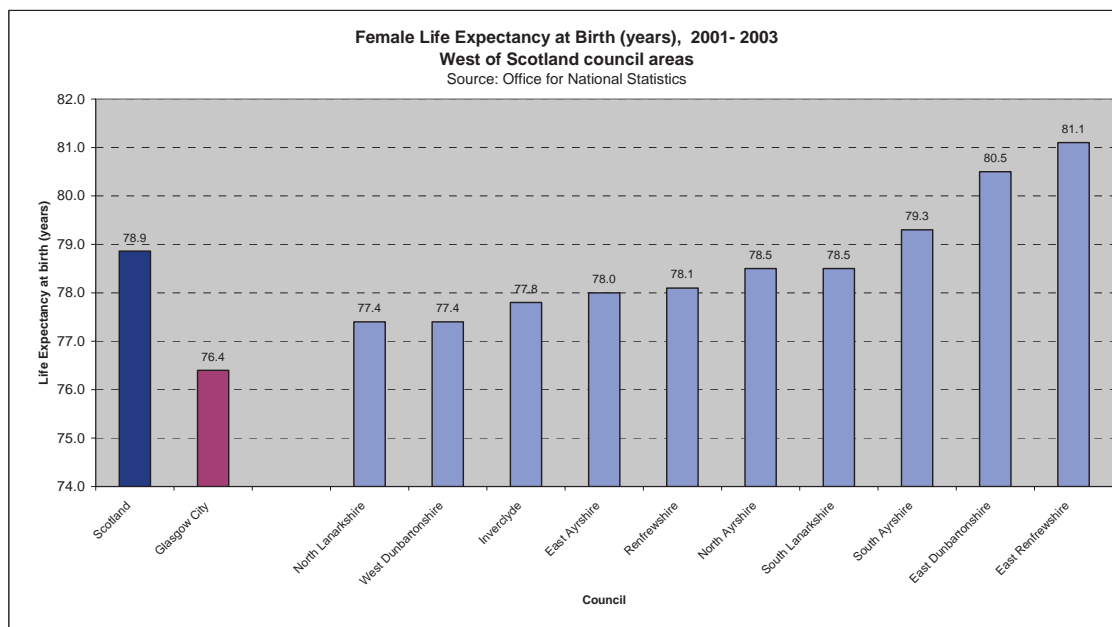
Trends in male life expectancy for West of Scotland councils from 1991-93 onwards have been upward in every council, although the rise has been steeper in some areas than others (Figure 3.32). There was a rise of 3.2 years in male life expectancy in East Dunbartonshire compared to a more modest rise of 0.9 years in Glasgow and 0.6 years in Inverclyde over the ten years to 2001-03.

Figure 3.32



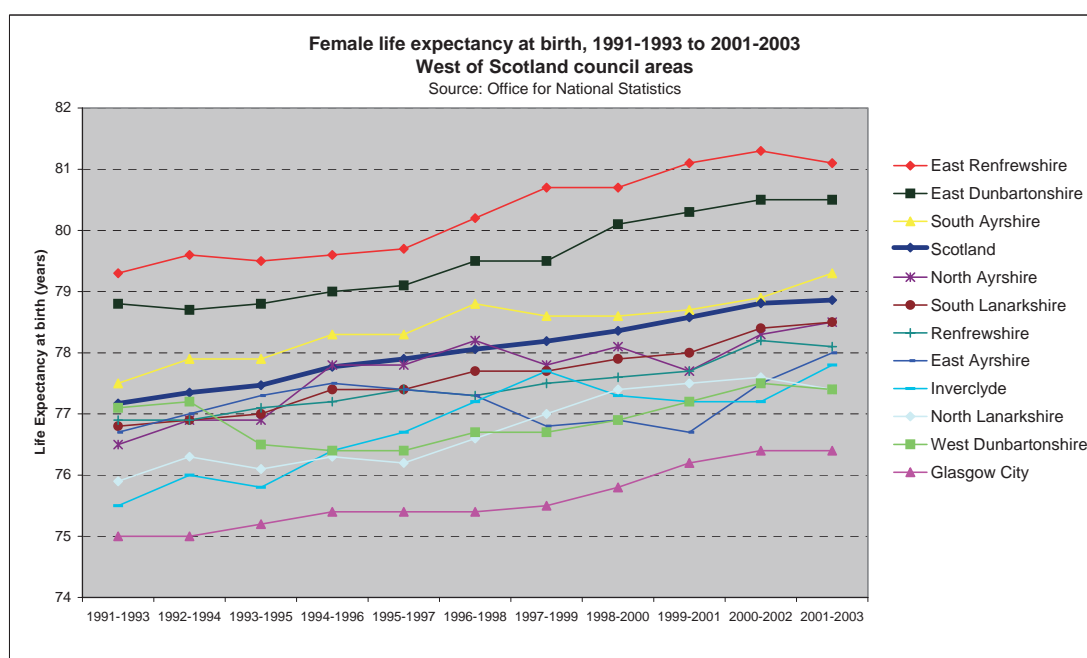
Female life expectancy varies from 76.4 years in Glasgow (two and a half years less than for Scotland) to 81.1 years in East Renfrewshire (Figure 3.33). This represents a four and a half year gap but is much less than the eight year variation in male life expectancy that occurs across the West of Scotland at a council level.

Figure 3.33



The trends in female life expectancy have been upward overall over the ten year period from 1991-93 to 2001-03 but, while there was a rise in life expectancy for women in Inverclyde of 2.3 years over the period, the rise in West Dunbartonshire was only 0.3 years (Figure 3.34).

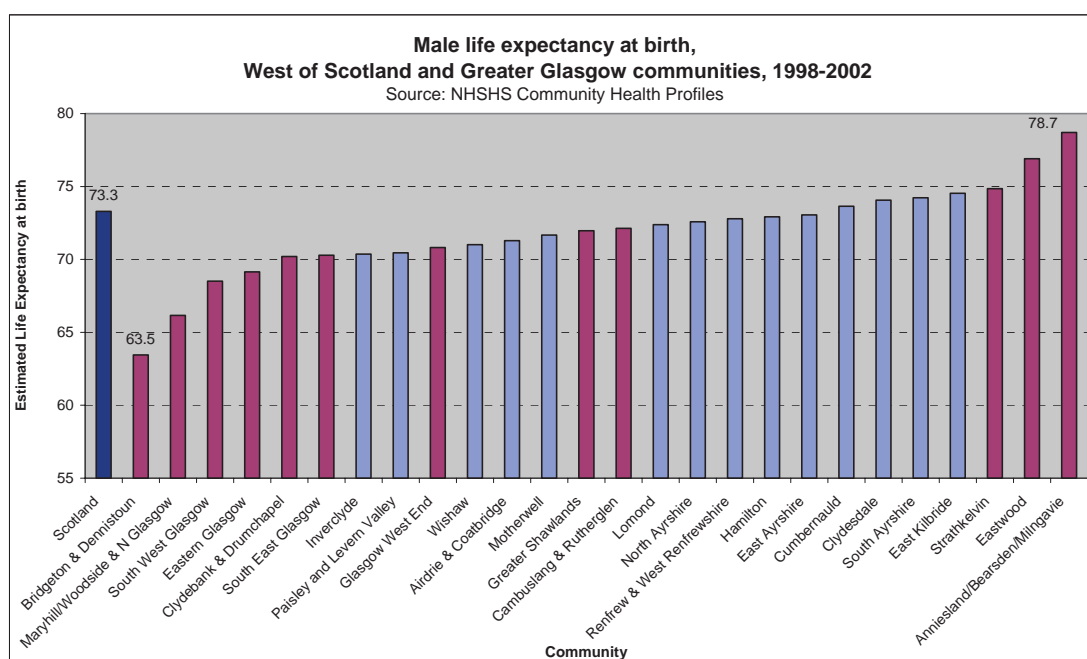
Figure 3.34



Male life expectancy at community and postcode sector level

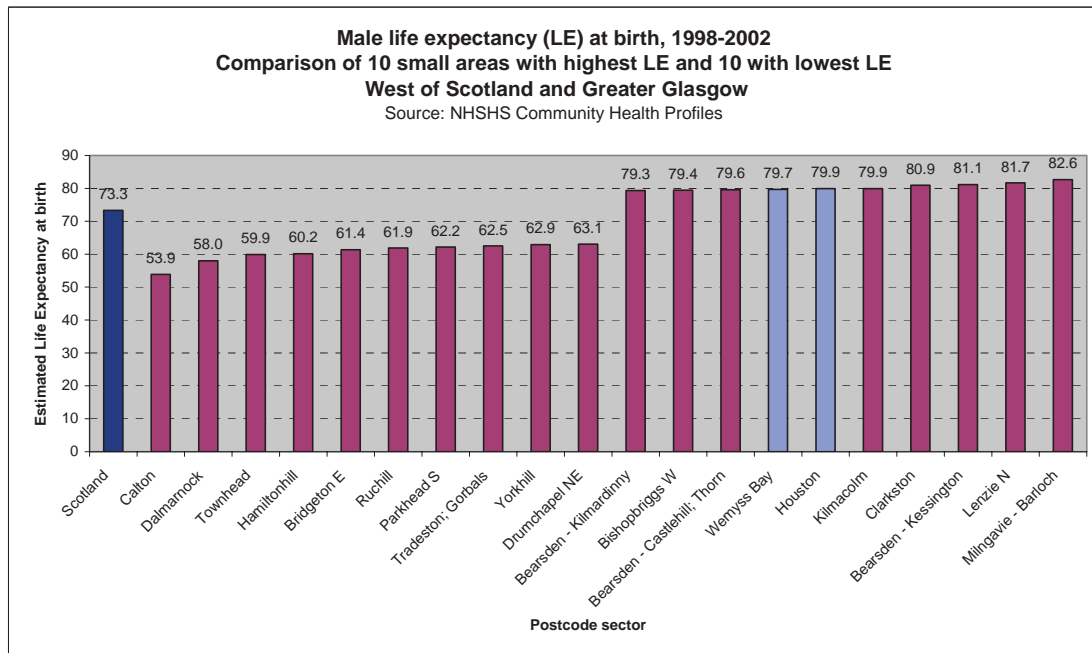
The life expectancy graphs to a great extent mirror the death rate patterns, but add extra information on gender related health inequalities. For men, the life expectancy differences at a community level across the West of Scotland are large (Figure 3.35). In Bridgeton & Dennistoun life expectancy for a man at birth was estimated to be less than 64 years (in 1998-2002). Glasgow communities occupy the first six positions in order of lowest male life expectancy across the West of Scotland. At the other end of the spectrum three communities in Greater Glasgow have the highest male life expectancy within the West of Scotland – Strathkelvin, Anniesland, Bearsden & Milngavie and Eastwood. The 15 year gap in male life expectancy between Bridgeton & Dennistoun and Anniesland, Bearsden & Milngavie highlights the differences in life circumstances, lifestyles and life chances that exist in the city.

Figure 3.35



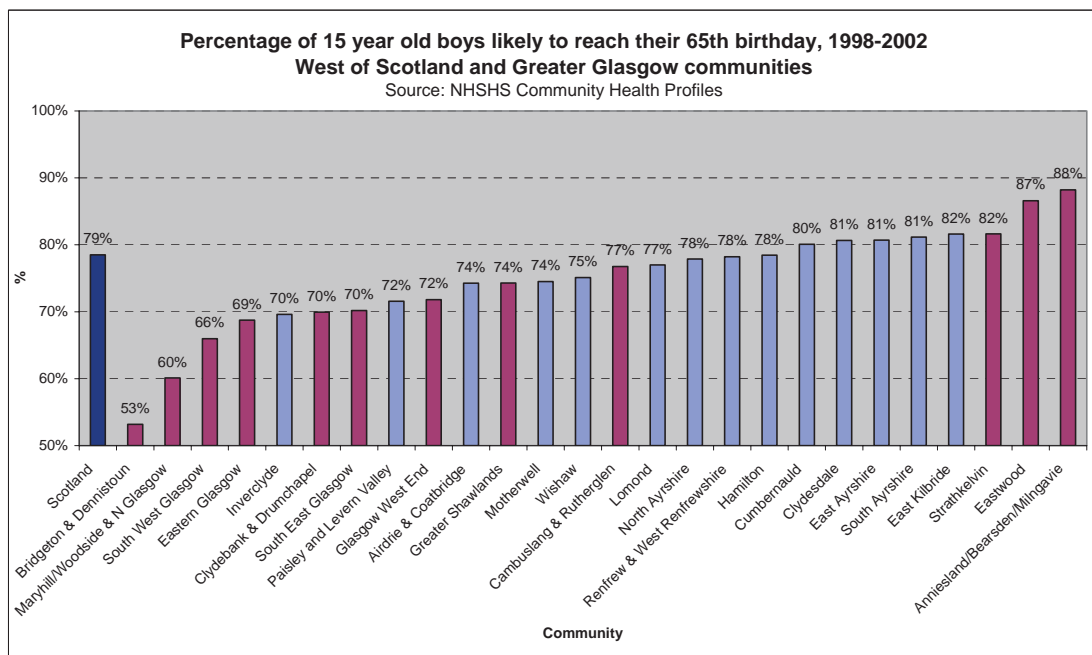
At a postcode sector level the differences in life expectancy widen further (see Figure 3.36), although it should be borne in mind that estimates for these areas, which have populations of 3,000-5,000 on average, have wide confidence limits. In three postcode sectors male life expectancy is actually estimated to be less than 60 years, while in the sectors with the highest life expectancy, it is estimated that men will live for 20 years longer.

Figure 3.36



From life expectancy data it is also possible to estimate the likelihood of a 15 year old boy reaching his 65th birthday. This is again an estimate with wide confidence intervals but re-emphasises the differences in health across Greater Glasgow (Figure 3.37). In Bridgeton & Dennistoun, it is estimated that just 53% of 15 year old boys will reach their 65th birthday, while in Eastwood and Anniesland, Bearsden & Milngavie the estimates are that at least 87% are likely to reach this age.

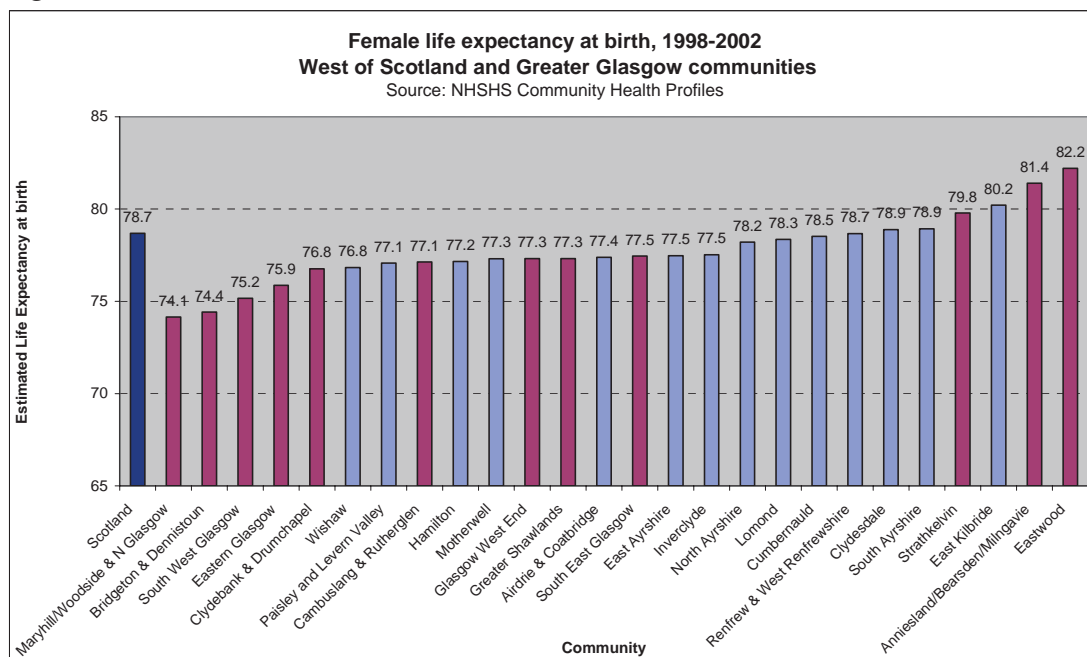
Figure 3.37



Female life expectancy at community and postcode sector level

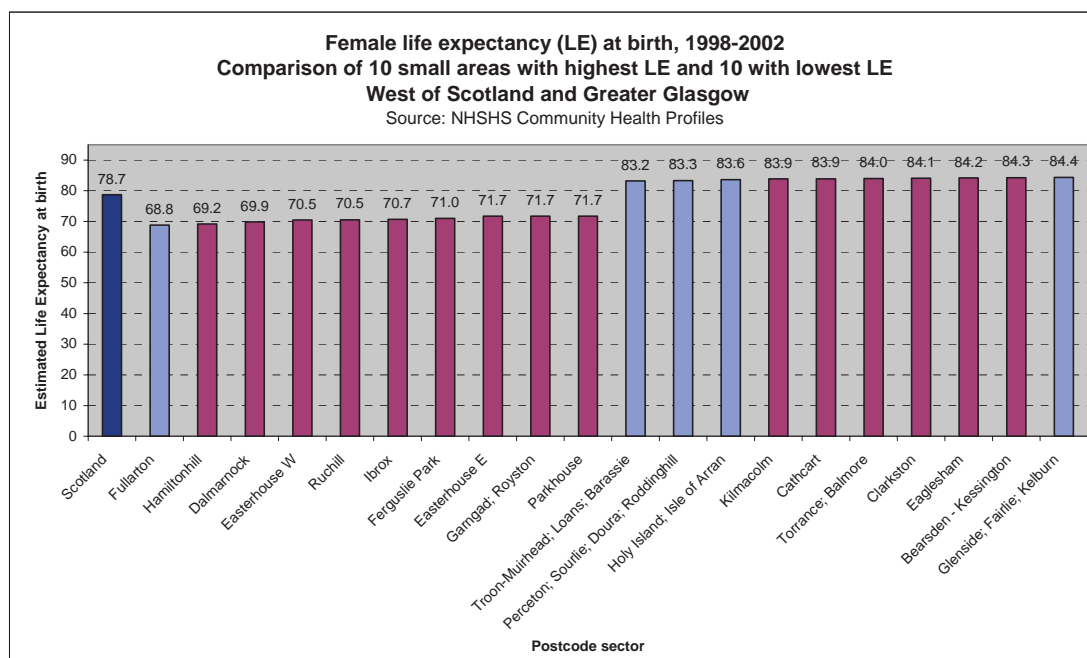
While female life expectancy is higher than for men, the differences between communities are still marked, although with much less variation (Figure 3.38). The gap between the communities with the lowest female life expectancy (Maryhill, Woodside & North Glasgow and Bridgeton & Dennistoun) and those with the highest (Anniesland, Bearsden & Milngavie and Eastwood) is seven to eight years.

Figure 3.38



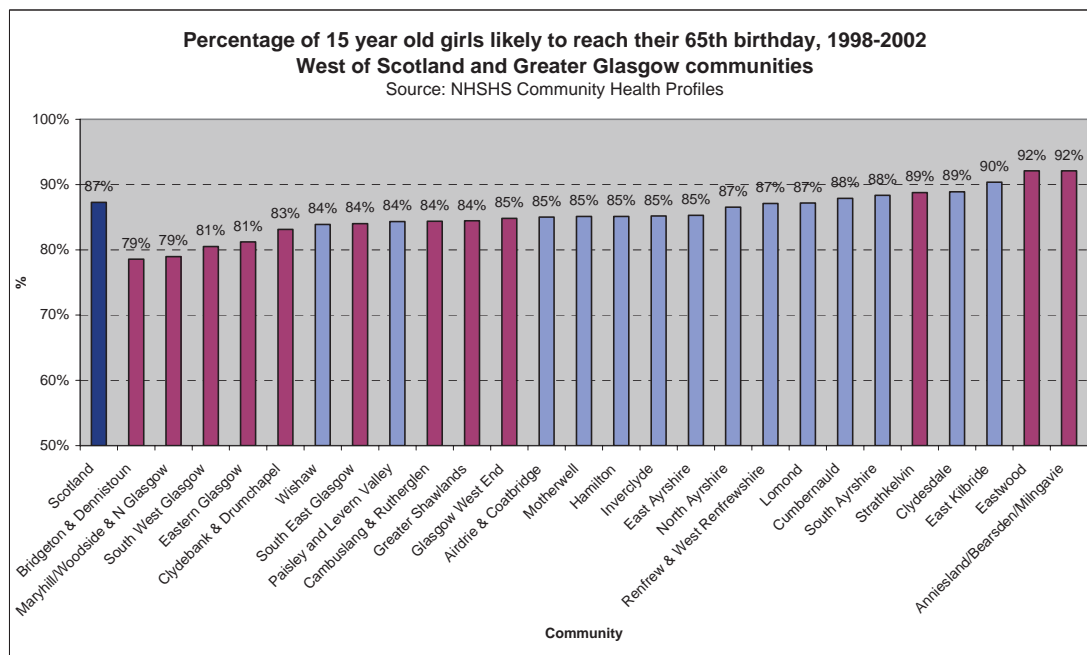
At a postcode sector level, the gap between areas with the lowest and highest female life expectancy is wider, around 14 to 15 years (see Figure 3.39). The areas of highest female life expectancy are quite geographically spread and most are affluent. In contrast, the areas of low female life expectancy are all areas of long-standing deprivation and the majority are in Glasgow. However, it is worth noting that these estimates of life expectancy for small areas have wide confidence intervals.

Figure 3.39



From the life expectancy calculation it is also possible to estimate the likelihood of a fifteen year old girl reaching her 65th birthday. This is an estimate with wide confidence intervals but again re-emphasises the differences in health across the city. In Bridgeton & Dennistoun, it is estimated that 79% of 15 year old girls will reach their 65th birthday, while in Eastwood and Anniesland, Bearsden & Milngavie the estimates are that at least 92% are likely to reach this age (Figure 3.40).

Figure 3.40



Life expectancy by deprivation

As part of our analysis of life expectancy we examined trends in life expectancy in relation to deprivation. Two analyses were designed to examine the gap in life expectancy between the most and least deprived communities in Greater Glasgow (as measured by Carstairs deprivation^x quintile) between 1981 and 2001.

The first analysis set out to measure differences in life expectancy by defining the postcode sectors in Greater Glasgow's most and least deprived quintiles in 1981 and using the same sets of sectors to represent the most and least deprived quintiles from 1981 through to 2001. The second analysis assigned postcode sectors in Greater Glasgow to the most and least deprived quintiles as measured at each Census from 1981, 1991 and 2001. Thus, while in the first analysis areas (postcode sectors) in each quintile remained fixed, in the second new areas could appear in the most and least deprived quintiles. In fact the two analyses produced very similar results and for this reason the following description describes the results of only one of the approaches (the first analysis) in depth.

Two features of this analysis are important: the trends in life expectancy by deprivation quintile and sex, and the change in the gap in life expectancy between the most and least deprived quintiles. A third trend, which underlies the approach taken, is the change in population of each quintile over time, remembering that the same postcode sectors remain in each quintile between 1981 and 2001.

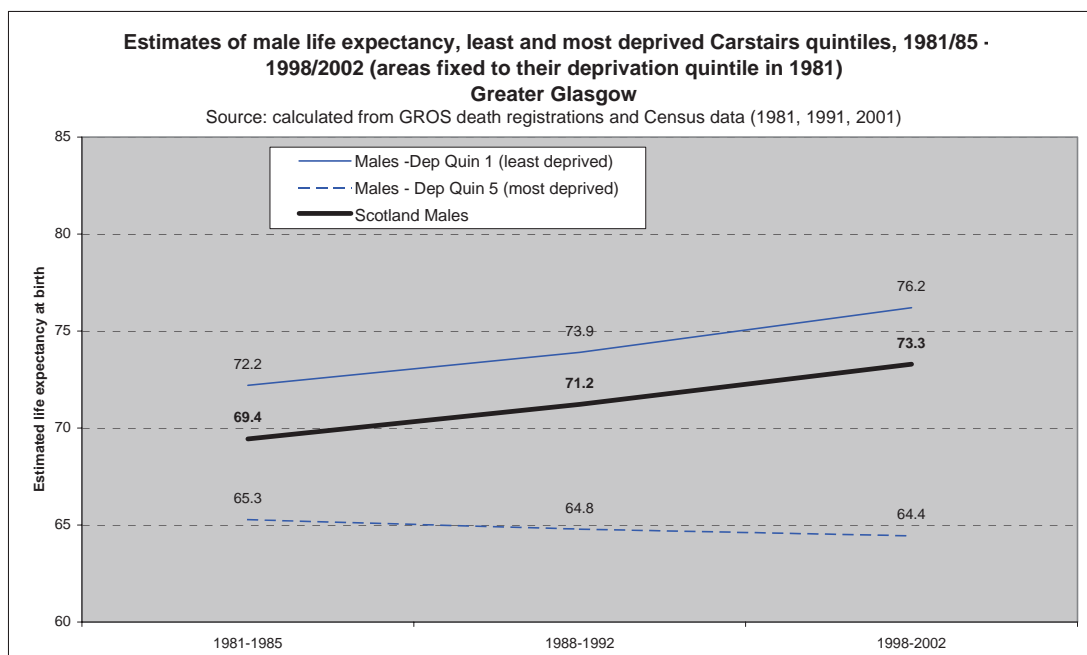
In summary the most notable trends for males (see Figure 3.41) are that:

- Male life expectancy in the most affluent quintile in Greater Glasgow was nearly three years better than the Scottish figure in 1981 and has remained in this position over the last 20 years, having risen in parallel to the Scottish trend.
- Males in the most affluent parts of Greater Glasgow can now expect to live to over 76 years, while in Scotland as a whole men can expect to live to just over 73 years.
- By contrast, in the most deprived quintile, life expectancy is estimated to have dropped slightly in the last 20 years from 65.3 years to 64.4 years.

As a result of these opposing trends, the gap in life expectancy for men in Greater Glasgow has widened from 6.9 years to 11.8 years. In other words, the gap in male life expectancy between the most and least affluent parts of Greater Glasgow has widened by five years over a twenty year period.

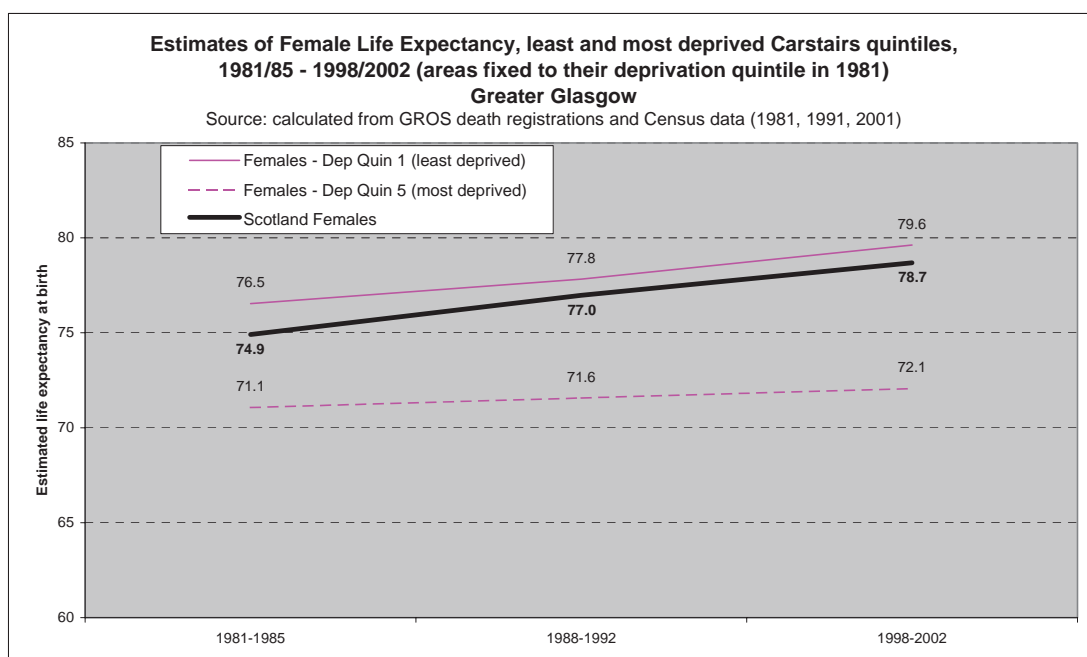
^x Carstairs deprivation scores were originally developed by Vera Carstairs and Russell Morris. See the MRC Social and Public Health Sciences Unit website for more details:
http://www.msoc-mrc.gla.ac.uk/Publications/pub/Carstairs_MAIN.html.

Figure 3.41



The trends in life expectancy for women are similar (see Figure 3.42) but not as pronounced. Life expectancy for women in the most affluent quintile has risen (by approximately three years) and remains higher than for Scotland as a whole, but the difference from the Scottish average has narrowed slightly. Life expectancy of women in the most deprived quintile has improved but only by one year over a twenty year period, and so the gap in life expectancy between women in the most and least deprived communities of Greater Glasgow has widened from 5.5 to 7.5 years.

Figure 3.42



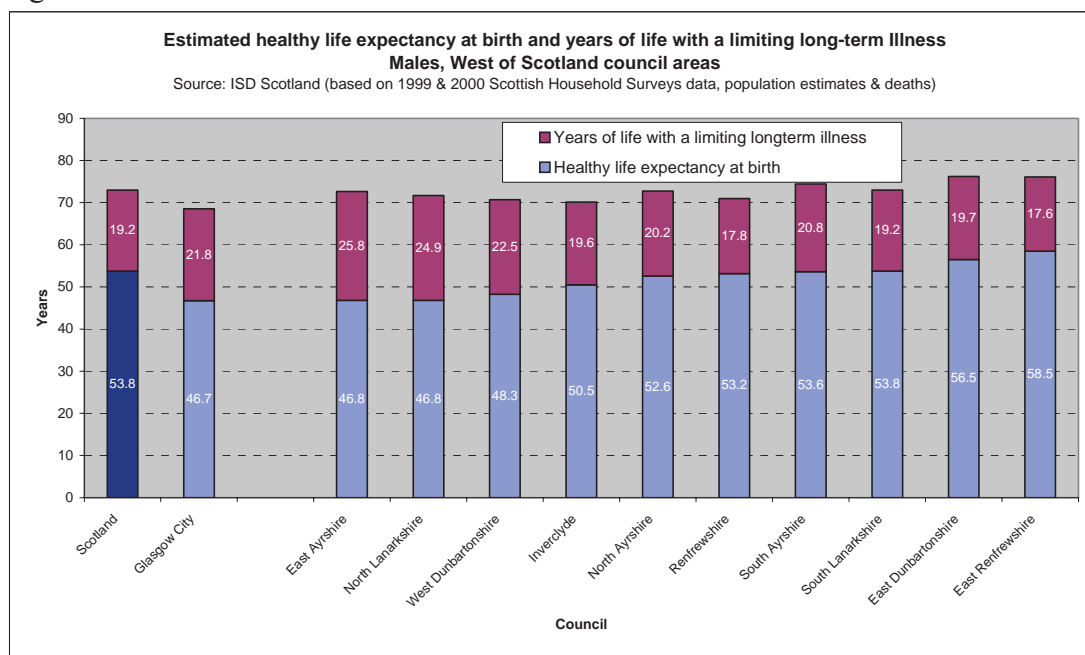
Over twenty years the *change in the populations* of each quintile – whose areas were fixed to their 1981 positions – is both dramatic and contrasting. The population of the most deprived quintile was 203,677 in 1981, dropped to 150,821 in 1991 and then reduced further to 120,240 in 2001. This represents an overall drop of over 83,000 or 41% in the 20 year period. In contrast, the population of the most affluent quintile increased slightly over the period from 194,239 to 207,571, a rise of over 13,000 or 7%. Another way of describing this change is to note that, while in 1981 the population of each quintile, by definition, accounted for 20% of the population of the region, by 2001 the population of the most deprived areas (as defined in 1981) represented only 14% of the Greater Glasgow population and the population of the most affluent areas had risen to 24% of the total.

These trends are open to a number of interpretations. However, it is safe to say that the population trends do reinforce the often-noted observation that the population of many of the deprived parts of Glasgow has dropped significantly. This pattern may also partly explain the worsening life expectancy trends of males in deprived areas if it is believed that those who left were generally in better health, with better education and better employment prospects.

Healthy life expectancy

Healthy life expectancy is the best estimate of years of life without a limiting long-term illness. Figures recently published by ISD Scotland⁷ show that across the West of Scotland there is almost a twelve year gap in male healthy life expectancy between Glasgow (46.7 years) and East Renfrewshire (58.5 years) (see Figure 3.43)^{xi}. The average number of years of life lived with a limiting long-term illness varies between 17 and 25 years among the West of Scotland councils.

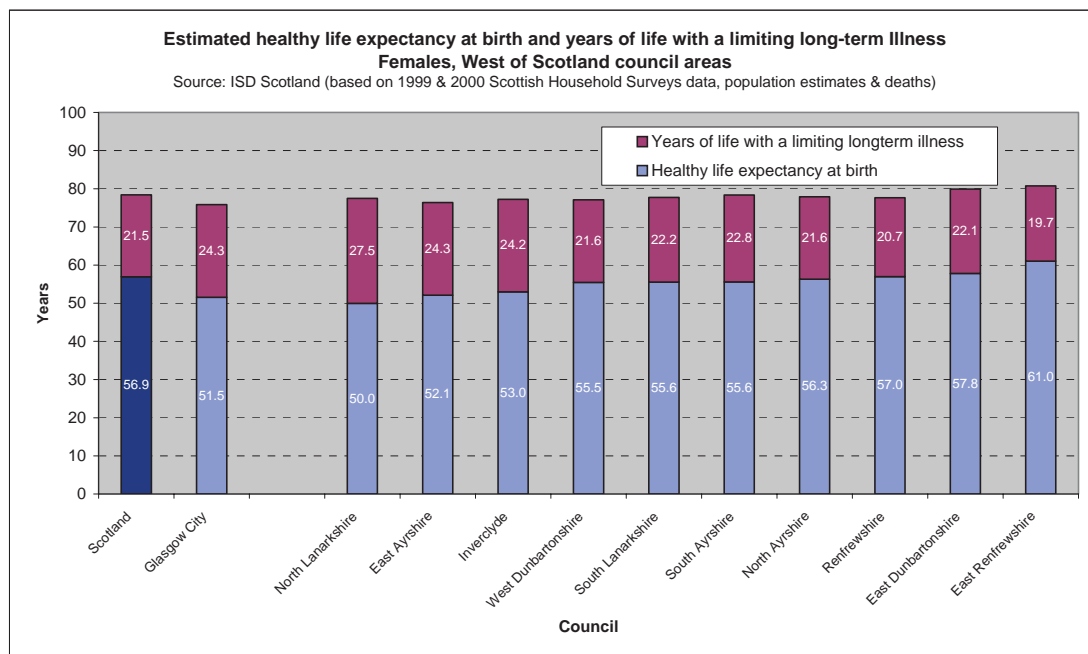
Figure 3.43



^{xi} Note that the blue part of each column shows years of 'healthy life expectancy' (HLE), while the maroon section indicates the estimated number of years of life with a limiting long-term illness (LLI). The overall height of each column indicates overall life expectancy at birth.

For women in the West of Scotland, the gap in healthy life expectancy is equally pronounced (see Figure 3.44): there is an eleven year difference in healthy life expectancy between North Lanarkshire (50 years) and East Renfrewshire (61 years). The estimated number of years of life lived with a limiting long-term illness varies between 20 and 27 years among the West of Scotland councils.

Figure 3.44



The calculation of healthy life expectancy for regions of Scotland is a relatively recent innovation and reveals important information. First, it is striking how relatively young people in Scotland are when they are first affected by limiting long-term illness. Second, although the data are not shown here, there has been little growth in healthy life expectancy while life expectancy has been rising. The result is that the length of time that people are living with illness is rising; thus, contributing in turn to the increasing demands on health and social services.

Summary

- The city of Glasgow, with a population of 577,000, and Greater Glasgow NHS Board area, with a population of 867,000, are the largest council and NHS Board, respectively, in Scotland.
- Glasgow City, compared to other West of Scotland councils, has one of the lowest proportions of ‘under 16s’ in its population but the highest proportion of people of ‘working age’.
- In Glasgow, the proportions of men and women of ‘pensionable age’ are strikingly different: 22% of women compared with 12% of men.
- Glasgow has a low dependency ratio in comparison to other West of Scotland councils and to Scotland as a whole. Projections predict an increase in the dependency ratio for the country as a whole and this is mirrored in most of the West of Scotland councils with the exception of Glasgow, which is predicted to maintain an unchanged and relatively low dependency ratio up to 2024. However, this (theoretically) healthy economic profile does not take account of people of working age not working or unable to work due to incapacity, of which Glasgow has a high proportion currently (as outlined in Chapter 10: Health and function).
- Looking ahead to 2024, many of the West of Scotland councils are expected to show population decreases. The greatest decreases are predicted for Inverclyde, which is expected to lose 13.6% of its population between 2004 and 2024, and for East Dunbartonshire (-10.5%). Glasgow City is set to lose 4.4% of its population, equating to a reduction of around 25,000 people.
- In Glasgow, the number of children under 16 is set to reduce by 13,000 or 13% in the period 2004-2024. Over the same period it is predicted that the population in the 16-49 age range will reduce by 11% (a reduction of 33,000 people), whereas the population aged 50-64 is set to grow by 24%. However, unlike the overall Scottish pattern, the population in older age groups (65 years and above) is predicted to remain relatively stable, rather than increasing as elsewhere. This, in part, may reflect the relatively low life expectancy in parts of Glasgow.
- Despite the prediction of a continuation of falling populations, household numbers are predicted to rise as single adult households increasingly dominate. It is predicted they will account for 49% of all households in Glasgow by 2016. Lone parent households are also predicted to increase and may soon make up almost one in two of households with children (48% in Glasgow by 2016).
- Trends in overall death rates are downward, but the rate of this reduction has varied greatly across Glasgow in the last ten years such that the mortality gap between the communities with the highest and lowest mortality has widened noticeably. At a small area level, there are three- to four-fold variations in mortality between the areas with the lowest and highest mortality.

- Life expectancy trends and local variations mirror the mortality rate patterns: people are living longer, but across West of Scotland councils there is an eight year gap in male life expectancy with Glasgow having the lowest life expectancy (69.1) and East Dunbartonshire (77.2) the highest. Trends over the last ten years show that the gap in male life expectancy has widened. Female life expectancy, while better than male life expectancy, displays a gap of around four and a half years across the West of Scotland councils.
- Within Greater Glasgow, the polarity in life expectancy is clear: for instance, there is an estimated 15 year gap in male life expectancy between Bridgeton & Dennistoun and Anniesland, Bearsden & Milngavie, highlighting the differences in life circumstances, lifestyles and life chances that exist. The likelihood of a boy of 15 in Bridgeton & Dennistoun reaching his 65th birthday is little better than one in two (53%), based on current mortality rates.
- At a small area (postcode sector) level there is an estimated gap in male life expectancy of at least 20 years between those areas with highest and lowest life expectancy, and a 15 year gap for females.
- Over the last twenty years, the life expectancy at birth of the 20% most affluent and 20% least affluent communities has diverged markedly, particularly for men. For example, male life expectancy in the most affluent parts of Greater Glasgow has risen to over 76 years, compared to just over 73 in Scotland as a whole; while in the most deprived quintile, life expectancy is estimated to have dropped slightly in the last 20 years from 65.3 years to 64.4 years. As a result of these opposing trends, the gap in male life expectancy between the most and least affluent has widened to nearly 12 years.
- The trends in life expectancy for women, in relation to deprivation, are similar, but not as pronounced. The gap in life expectancy between women in the most and least deprived communities of Greater Glasgow has widened to 7.6 years.
- There is an 11 to 12 year gap in years of healthy life expectancy across the West of Scotland, for men and women. It is notable how relatively young people are, on average, when first affected by limiting long-term illness and how long people live with a limiting long-term illness, particularly women – estimates vary between 20-27 years across West of Scotland councils.

In conclusion, it is clear that in comparison to Scotland and the rest of the West of Scotland, Glasgow is already quite distinct in terms of its population and household structure. Predictions suggest that these differences may be further accentuated in the future (e.g. percentages of lone parents, single adults, dependency ratios). It is also clear that, despite overall reductions in mortality, huge health inequalities remain and indeed such inequalities appear, on the basis of a number of different mortality and life expectancy measures, to have widened over the last ten to twenty years.

References

¹ General Register Office for Scotland, Mid-2004 Population Estimates, Council and Health Board Areas. 2005

<http://www.gro-scotland.gov.uk/statistics/library/mid-2004-population-estimates/index.html>

² NHS Health Scotland. Community Health and Well-being Profiles. 2004

<http://www.scotpho.org.uk/communityprofiles>

³ General Register Office for Scotland. Projected Population of Scotland (2004 Based). 2005

<http://www.gro-scotland.gov.uk/statistics/library/popproj/04population-projections/index.html>

⁴ General Register Office for Scotland. 2002-based Household Projections. 2005

<http://www.gro-scotland.gov.uk/statistics/library/household-estimates-projections/2002-based-household-projections.html>

⁵ Personal communication from Ann MacDonald, NRCEMH (The National Resource Centre for Ethnic Minority Health) and Margaret Hanlon, Fernbank Medical Centre

⁶ Office for National Statistics. Life expectancy at birth by health and local authorities in the United Kingdom.

<http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=10860>

⁷ Clark D, McKeon A, Sutton M, Wood R. Healthy life expectancy in Scotland. 2004

http://www.isdscotland.org/isd/info3.jsp?pContentID=2860&p_applic=CCC&p_

Summary

Glasgow has retained a position within the UK as a major business centre and is rated second only to London as a retail centre.

The service sector has grown to a position of predominance in Glasgow's economy, providing the bulk of the city's economic output and employment.

There are now more women than men in employment in Glasgow and part-time work has grown to represent more than a quarter of all jobs.

The number of Glasgow residents in employment has grown in recent years – by more than 45,000 jobs in the period 1998-2004.

The official unemployment rate and the claimant unemployment rate have both reduced greatly over the last four to five years.

It is estimated that there are 110,000 adults in Glasgow who are not economically active, equating to 30% of the working age population.

In 2002, 235,000 adults in the region were defined as 'employment deprived' or workless (54% of the Scottish total), and Glasgow City alone contributed 85,000 people or 19% of the Scottish total.

Income for those in work has risen in recent years, both nationally and in Glasgow. However income inequalities are widening, with those in the best-paid occupations having gained more, relatively, and far more, absolutely, in terms of pay.

Across the West of Scotland 19% of the population are estimated to live in 'income deprivation'. This figure varies greatly from 8% in East Dunbartonshire and East Renfrewshire to 28% in Glasgow City – over 160,000 of the city's population.

Glasgow City has double the national rate of pupils eligible for free school meals (42%).

House prices have risen hugely in the last ten years and to a level in many areas where affordability has become a very real issue, especially for those on lower incomes.

There has been an overall trend towards greater numbers of households with access to a car, but there are large variations in access levels across the West of Scotland and Glasgow especially.

The proportion of Glasgow's population in the top two social classes has more than doubled since 1981 so that in 2001 four out of ten of Glasgow's population were classified as either Social Class I or II.

While the city's middle class has grown and some parts of the city prosper from greater employment and higher wages, other parts of Glasgow have seen little improvement in circumstances.

"In 1993, for the first time in Glasgow's history, there were more women in jobs than men."

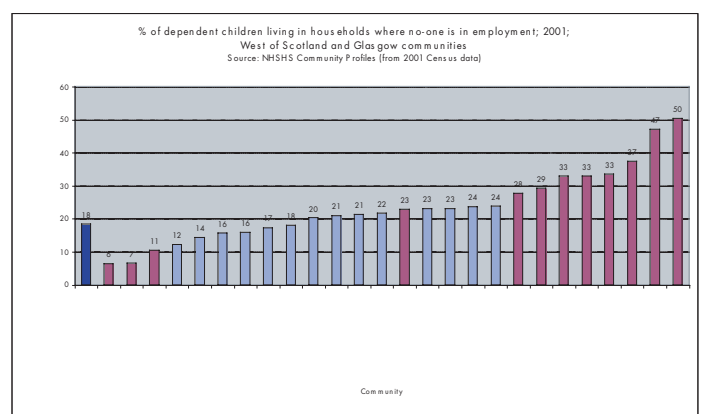
"The gap in pay between the highest and the lowest paid is widening nationally and in Glasgow."

"The proportion of Glasgow's population in the top two social classes has more than doubled since 1981 so that in 2001 four out of ten adults in Glasgow were classified as either Social Class I or II."

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 4: Economic factors

The economy globally, nationally and locally has a major impact on people's lives and so it is important to consider the role of economic factors in shaping health at a population level. Thus, patterns and trends in economic output, social class, unemployment and income are all relevant to understanding health in Glasgow and the West of Scotland.

To cover this large and important area we start with a brief overview of Glasgow's current business and labour market. This is followed by a more detailed description of the economic position of Glasgow (and West of Scotland) residents in terms of unemployment, economic inactivity, income levels, income related benefits, house prices, some aspects of deprivation and social class.

4.1 Business and labour market overview

The Glasgow Economic Monitor for autumn 2005¹ provides an in-depth description of the business and economic health of the city. We have summarised a selection of important trends and indicators drawn from this publication.

Business

- A ranking produced by Scottish Business Monitor (2005) assessed that 113 of Scotland's top 500 companies (some 23%) are located in Glasgow.
- A national retail ranking for 2004 produced by Experian confirmed Glasgow's ranking as the most important retail centre in the UK outside London.
- Glasgow is one of only three UK cities included in a 'European Cities Monitor'², which ranks the 30 top European cities by their attractiveness as a business location. While Glasgow has been in this top tier of cities over the past decade, its ranking as a business location has fallen from 10th in 1990 to 24th in 2004.

Economic output

In 2002 Glasgow accounted for 16.1% of Scotland's Gross Value Added (GVA), an indicator of economic output that measures the wealth produced in an area – an increase from 14.4% in 1995. However, in comparison to ten other UK cities Glasgow's ranking in terms of output rate of growth has fallen in recent years.

Sector breakdowns of output highlight the growth of the service sector, which has grown to represent 82% of total GVA for Glasgow (2002) – a rise from the 1981 position, when services accounted for only 66% of GVA.

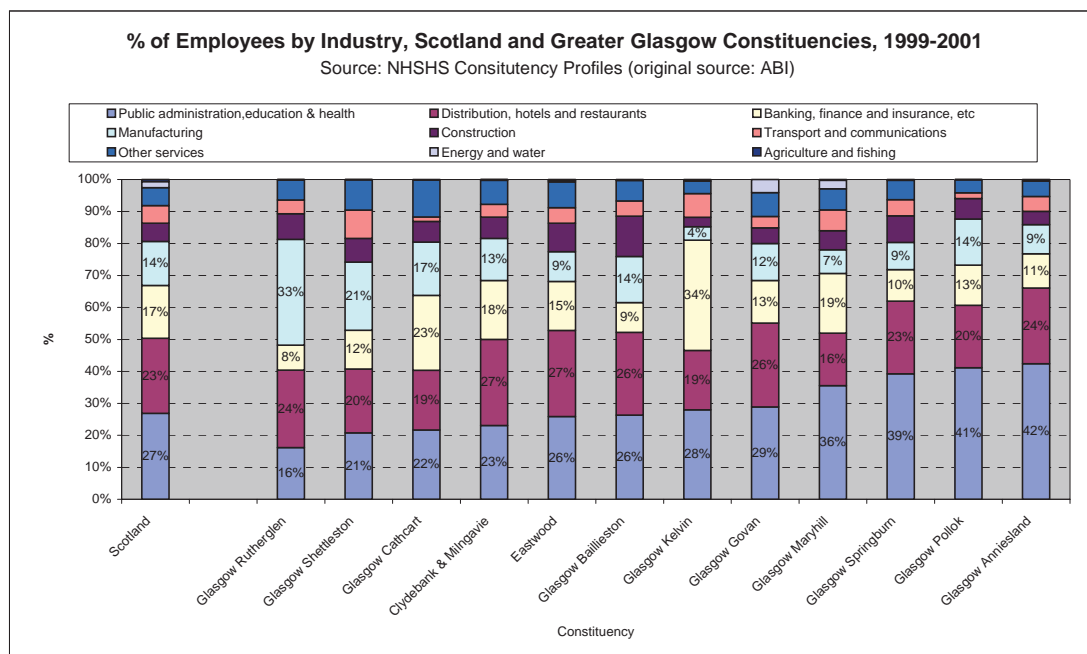
Employment

From 1950 to 1991 overall employment fell from 559,000 to 370,000 with over 90% of the employment loss in manufacturing. However in the five year period to 2001 total employment rose again to a peak of 411,000.

Employee jobs (i.e. people who work for a company or organisation, excluding the self-employed) account for 92-95% of all jobs in Glasgow and grew by 11.7% between 1998 and 2001 – almost double the Scottish rise. The main sector that gained jobs was the service sector, which gained some 44,599 jobs and within this the main gains were in banking, finance and insurance and business services (up 23%), public administration, education and health (+12.2%) and distribution, hotels and restaurants (+13.8%).

There are wide variations in employment levels by sector within Glasgow. The graph below (Figure 4.1), limited to Greater Glasgow constituencies in 1999-2001³, illustrates this. ‘Public administration, education and health’ is the largest employment sector nationally representing 27% of those in employment, but in a number of the Glasgow constituencies the percentage of employees working in this sector is much higher; in Maryhill, Springburn, Pollok and Anniesland the percentage of employees working in the sector ranges from 36% to 42%. There are also wide variations across Glasgow in the proportion of employees working in ‘distribution, hotels and catering’ and ‘banking, finance and insurance’ – the second and third largest employing sectors nationally. Manufacturing, which employed 14% of all employees nationally in 1999-2001, varies widely across Glasgow from being a minor employer in some parts, (Glasgow Kelvin (4%) and Maryhill (7%)), to being a major employer in other areas such as Rutherglen (33%) and Shettleston (21%).

Figure 4.1



The latest figures (2001-2003) show a small net loss of jobs across the city. In this period further jobs were lost in manufacturing (4,600), along with smaller losses in ‘finance and business’, in ‘transport and communications’ and in the ‘distribution, hotels and restaurants’ sectors. Partially offsetting these losses was a large increase in public sector jobs (up by nearly 9,000 jobs) and a small rise in construction sector employment.

In the future it is predicted that there will be further increases in employee jobs as well as in self-employment. The major rises are expected in business and finance

services (26,100 job gain, 2003-2013) and in public services/health/education (8,600 gain).

In 1993, for the first time in Glasgow’s history, there were more women in jobs than men. By 2003, 51.5% of all jobs in the city were held by women, in contrast to only 45.7% in 1981. Over the same period part-time working increased considerably, rising from 19.6% of jobs in 1981 to 28.8% in 2003. However, there is a wide variation between the different sectors in terms of the patterns and trends in part-time employment, and employment by gender.

The increase in service industries has been accompanied by changes in the occupational structure of the city (see Table 4.1). Since the 1980s, ‘professional’, ‘technical’ and ‘administrative’ occupations have all increased in contrast to decreases in ‘skilled trades’, ‘process, plant and machine operatives’ and ‘unskilled manual workers’.

Table 4.1 Employment in Glasgow by Occupation, 1981, 1991 and 2004

Employment by occupation	1981	1991	2004
Managers & senior officials	11%	13%	13%
Professional	10%	11%	13%
Associate professionals and technical	14%	16%	17%
Administrative and secretarial	15%	16%	17%
Skilled trades	13%	11%	8%
Personal service	5%	5%	6%
Sales and customer service	9%	9%	9%
Process, plant & machine operatives	9%	7%	6%
Unskilled manual	14%	12%	11%
All Occupations	100%	100%	100%

Source: SLIMS/RF

The number of Glasgow residents who are in employment, irrespective of whether they work within Glasgow or not, has risen in recent years. Compared to 1998, there were 45,000 more residents in work in 2004, 20,000 more men in work and 25,000 more women. This rise has, in turn, led to a rise in the employment rate (the proportion of the working age population in employment), which increased from 55.9% in 1998 to 66% in 2004. However, Glasgow’s rate is still considerably below the rate for Scotland (74.8%) and for Great Britain (74.9%) but the gap halved (approximately) in the period between 1998 and 2004.

4.2 Unemployment, economic inactivity and employment deprivation

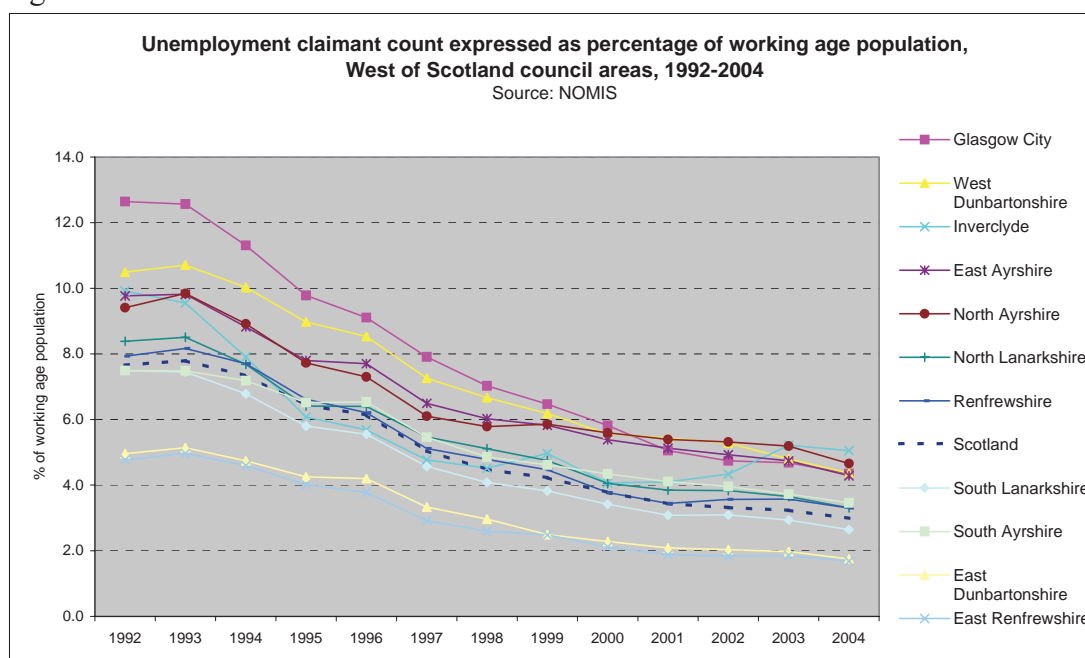
Unemployment

The Glasgow FQAⁱ unemployment rate was 7.6% in the period June 2004 - May 2005, representing 20,000 people out of work. This rate is 35% higher than the Scottish average (5.8%) and 58% above the level for Great Britain (4.8%). However this position does represent a relative improvement from Glasgow's position three years ago, in 2002.

The *claimant unemployment rate*ⁱⁱ is not a proxy for total unemployment or for overall levels of worklessness because, in terms of unemployment, it represents only a subset of those who are officially unemployed and, in terms of worklessness, it takes no account of those too ill to work. However, it does provide a useful comparative indicator for measuring local trends and patterns in employment deprivation.

As Figure 4.2 demonstrates, the claimant unemployment rate fell by over half nationally between 1992 and 2004 and this was mirrored by a reduction across the West of Scotland. However it should be noted that the rate for Inverclyde has risen again in the most recent years.

Figure 4.2



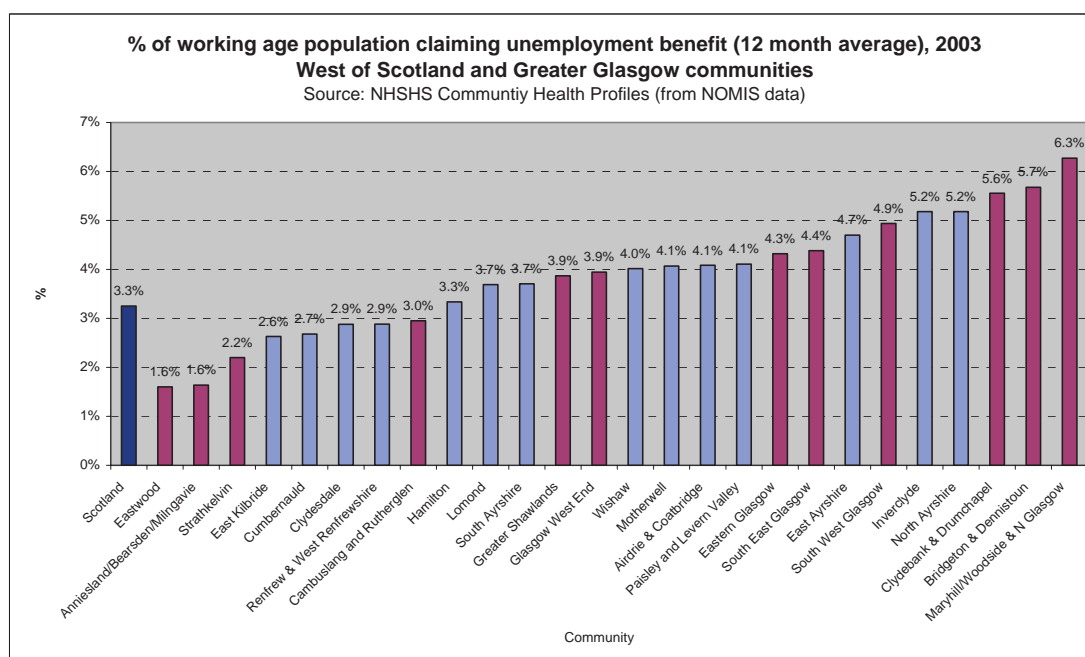
More recent data from 2004 show that Inverclyde has the highest percentage of claimants of Job Seekers Allowance (4.8%) across the West of Scotland councils, followed by Glasgow (4.1%). The lowest rates of claimants are in East Renfrewshire and East Dunbartonshire.

ⁱ FQA – Four Quarter Average.

ⁱⁱ Claimant unemployment rate is defined as the proportion of the working age population claiming job seekers allowance.

Data from NHS Health Scotland’s Community Health and Well-being profiles⁴ highlights the variation in claimant unemployment rates across the West of Scotland using the average claimant unemployment rate for 2003. Across the West of Scotland ‘communities’ⁱⁱⁱ, claimant unemployment rates varied widely from 1.6% in Eastwood and Anniesland, Bearsden & Milngavie to 6.3% in Maryhill, Woodside & North Glasgow (Figure 4.3).

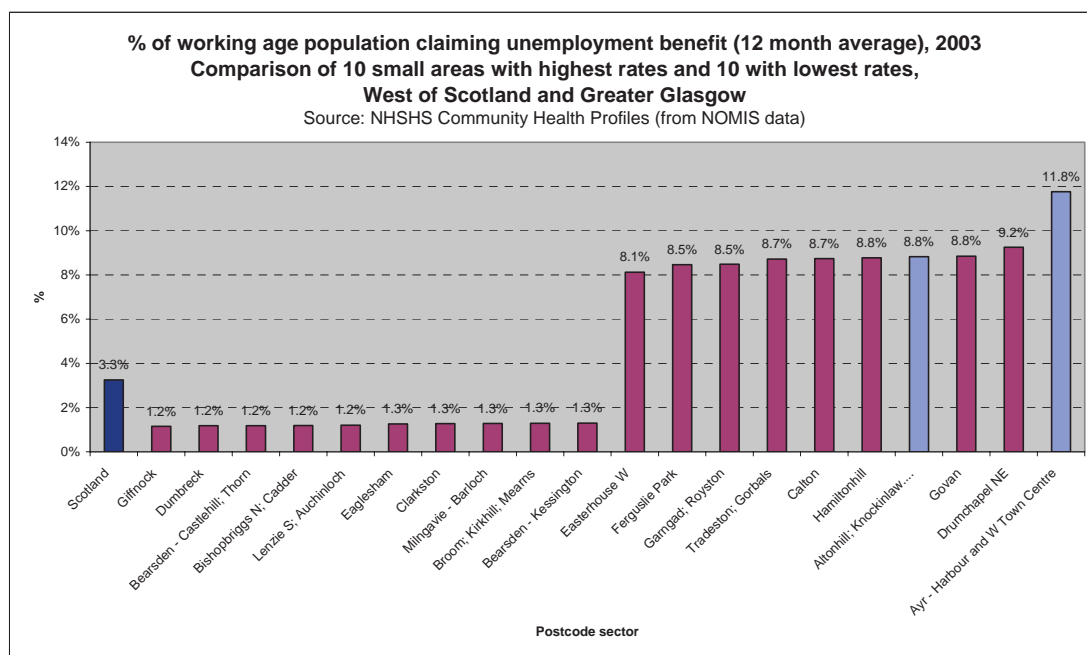
Figure 4.3



At a postcode sector level, the variations between the extremes were even greater. In the ten areas with the lowest rates, the rate varied between 1.2% and 1.3% of the working age population, while in the ten areas with the highest claimant unemployment, rates were all above 8% (Figure 4.4). As with other indicators, the majority of areas at both extremes were in Greater Glasgow, emphasising the polarity in economic circumstances that exists in the city and surrounding area.

ⁱⁱⁱ These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see ‘Preface to Chapters 2-12’.

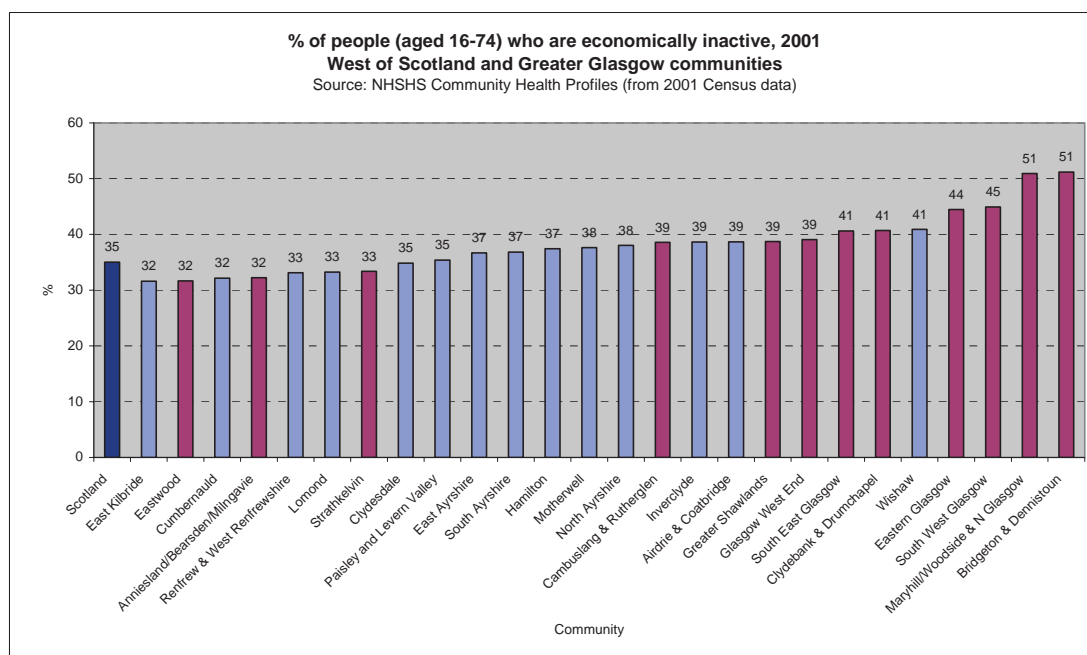
Figure 4.4



Economic inactivity

Economic inactivity rates^{iv} across the West of Scotland, as measured at the 2001 Census, were above the Scottish average and particularly high in some Greater Glasgow communities – above 50% in Maryhill, Woodside & North Glasgow and in Bridgeton & Dennistoun (Figure 4.5).

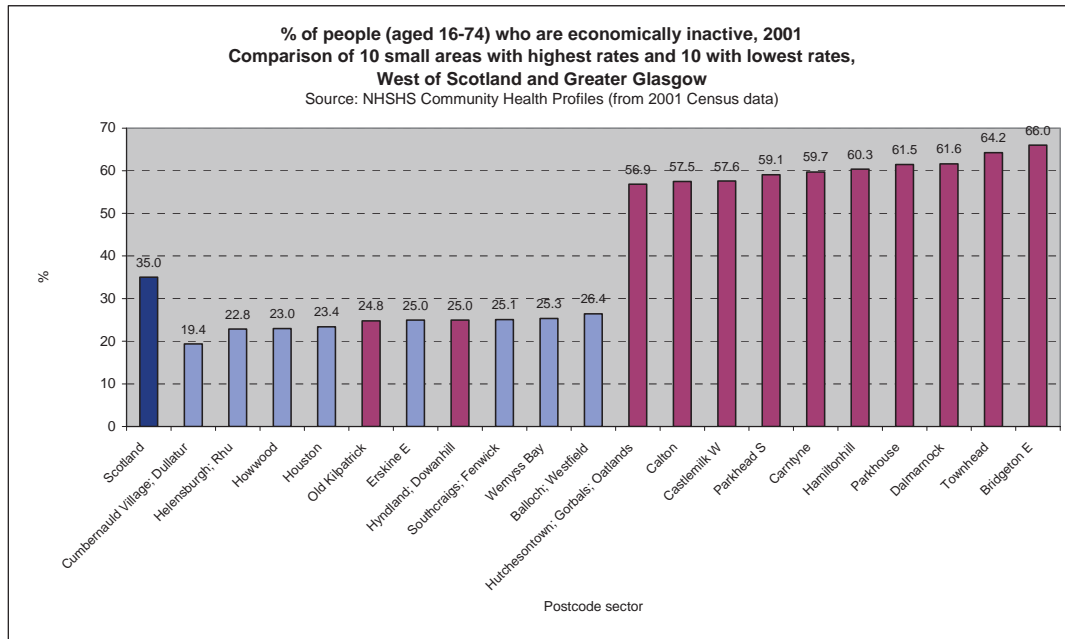
Figure 4.5



At a sector level this indicator highlights even more clearly the very high levels of economic inactivity, in particular in parts of the east and north of the city (Figure 4.6).

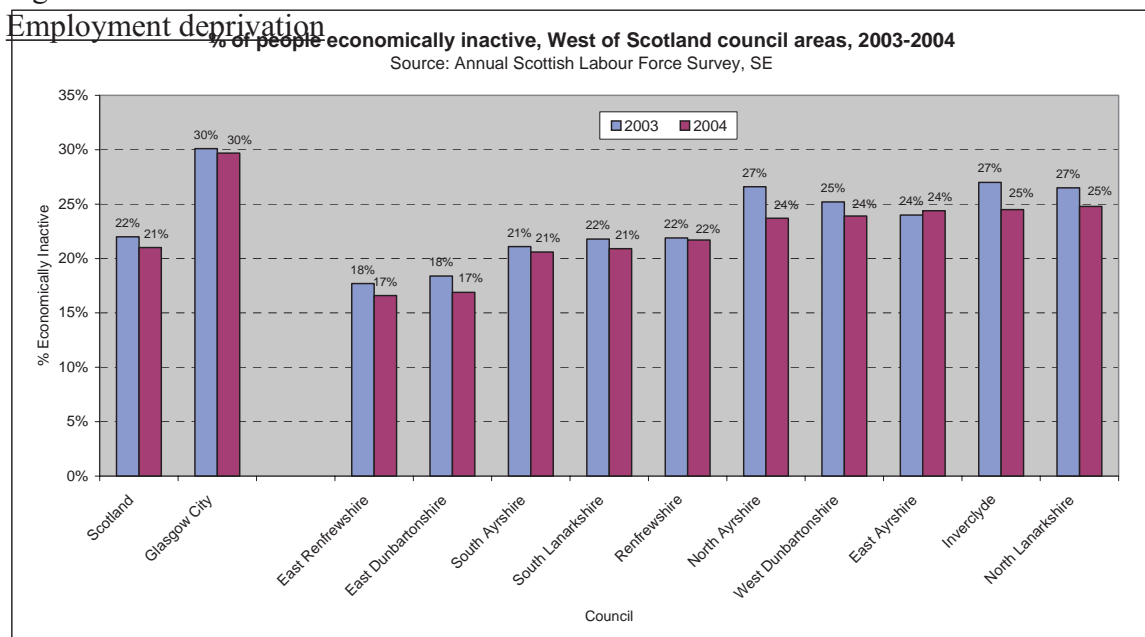
^{iv} Please refer to Appendix 1 for a definition of ‘economic inactivity’.

Figure 4.6



More recent data (restricted to working age adults i.e. males 16-64 and females 16-59 years) for 2003 and 2004 at a council level show that Glasgow City has the highest levels of economic inactivity in the West of Scotland but that there was a slight reduction in economic inactivity rates across all the councils between 2003 and 2004 (Figure 4.7). The figure of 30% for Glasgow equates to 110,000 people of working age.

Figure 4.7

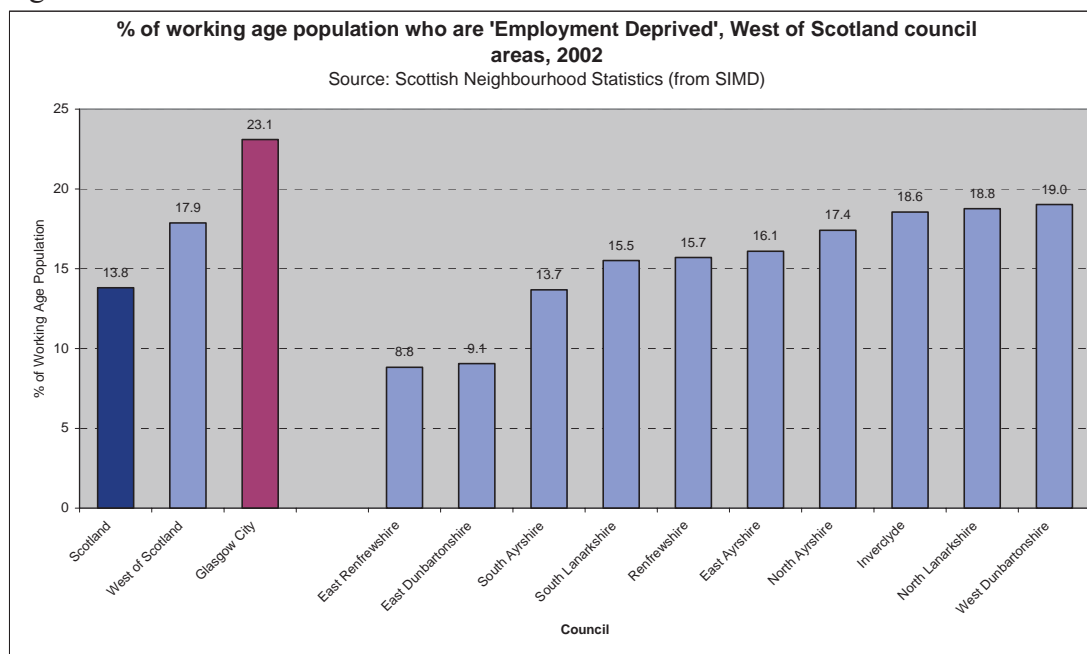


An indicator of the number and percentage of working age adults who are 'employment deprived' – a measure of those not in work either due to unemployment,

illness or disability – was produced as a component of the Scottish Index of Multiple Deprivation^{5,v}.

Across the West of Scotland councils, 235,000 adults were ‘employment deprived’ in 2002, a third of whom (85,000) lived in Glasgow City. Glasgow also had the highest percentage of the working age population who were employment deprived (23%), whereas the lowest percentages were in East Renfrewshire and East Dunbartonshire (both 9%) (Figure 4.8).

Figure 4.8

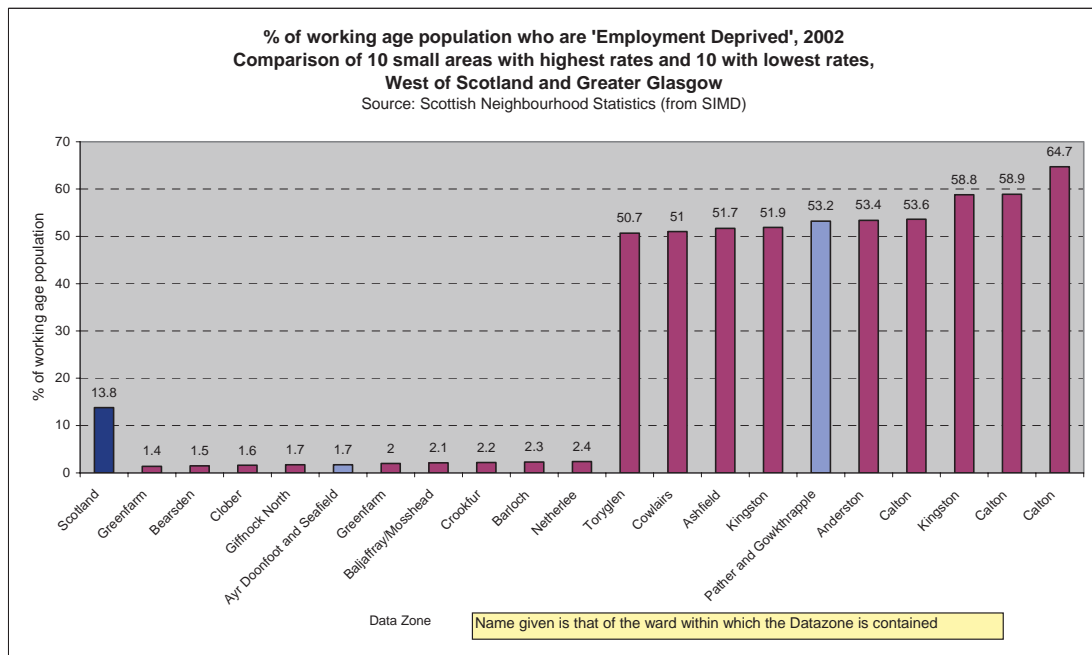


At a data zone^{vi} level across the West of Scotland, there is a massive variation in the proportion of working age adults who are employment deprived. In the ten data zones with the lowest rates, between 1.4% and 2.4% of adults were employment deprived; while in the ten areas with the highest rates, the figures were all above 50%. In one part of Calton the percentage was above 60% (Figure 4.9).

^v A detailed definition of this measure is available in Appendix 1.

^{vi} Data zones are areas constructed from 2001 Census output areas and have populations of between 500 and 1,000 household residents.

Figure 4.9



4.3 Income

Income levels

Data on pay levels from the Annual Survey of Hours and Earnings⁶ show that mean gross weekly pay for Glasgow residents (see Figure 4.10) is slightly below the national average (-2.6%). Across the West of Scotland average weekly wage levels are highest for residents of East Dunbartonshire (21.5% higher than Scottish average) and lowest for residents of West Dunbartonshire (12.3% lower than the Scottish average).

Figure 4.10



Gross weekly pay has been rising in recent years, by 30% nationally from 1998-2005 and by the same amount in Glasgow. However it is interesting to note that the gap in pay between the highest and lowest paid is widening, both nationally and in Glasgow. While pay in the lowest paid decile of employees rose by 24%, amongst the highest paid ten per cent of employees the increase in pay was 34%. In percentage terms these figures do not seem so far apart; however, the equivalent rises in actual weekly pay equate to just over £22 in the lowest paid decile and to £189 in the highest paid decile. In fact, the increase in the highest paid group is comfortably greater than the actual pay of the lowest paid decile (£116 a week). Figure 4.11 highlights these trends and patterns for Glasgow^{vii}.

Figure 4.11



Accurate estimates of overall income from all sources are difficult to come by beneath council level. However, modelled estimates calculated by the marketing company, CACI^{viii}, illustrate the relative differences in gross annual household income across the West of Scotland. It should be noted, however, that it is difficult to verify the accuracy of these estimates, and, thus, they should be interpreted with caution.

Figure 4.12 shows the estimated average annual gross household income figures in 2003 for Scotland (approximately £26,500) and West of Scotland communities (the latter ranging from around £18,400 in Maryhill, Woodside & North Glasgow to approximately £38,400 in Anniesland, Bearsden & Milngavie: a two-fold relative difference, and an absolute difference of around £20,000). It is notable that the areas with the highest and lowest incomes are all in Greater Glasgow.

^{vii} These pay comparison estimates relate to people in employment in Glasgow rather than to employees who are Glasgow residents and, thus, will include workers who commute into Glasgow.

^{viii} Provided by Communities Scotland. Details of how these estimates were created are provided in Appendix 1.

Figure 4.12

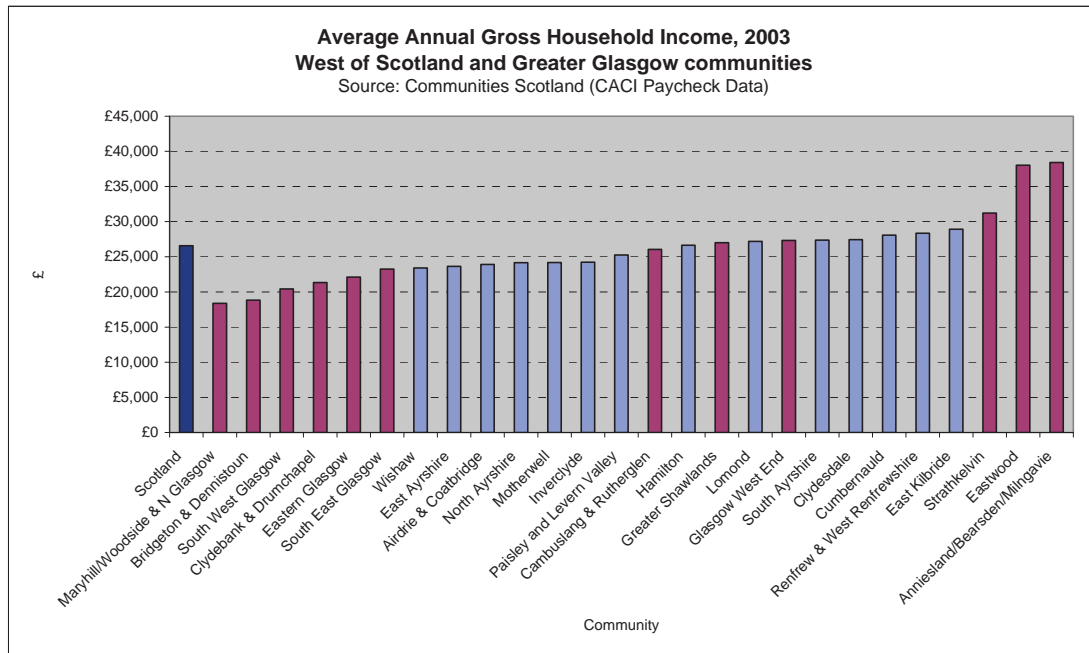
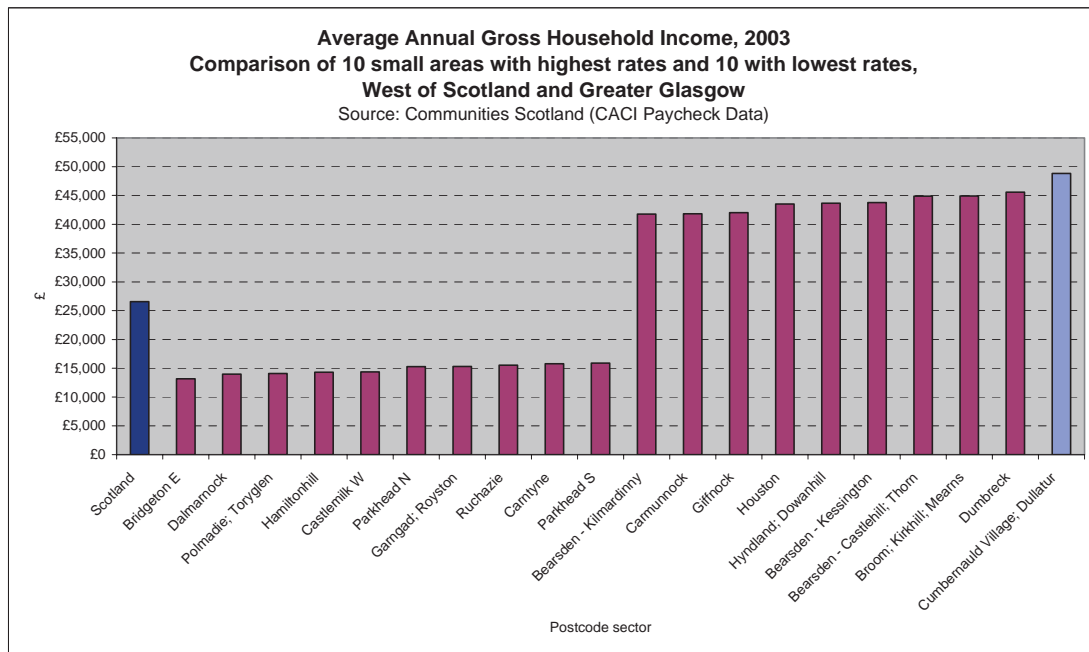


Figure 4.13 presents the same data at a small area level, showing the ten postcode sectors in the West of Scotland with the lowest average annual gross household income next to the ten sectors with the highest. Note that (a) all but one of these 20 areas are located within Greater Glasgow, and (b) the relative difference between the area with highest income and the one with the lowest is four-fold, and the absolute difference is almost £36,000 (ranging from under £13,200 in Bridgeton East to almost £49,000 in the sector covering Cumbernauld Village & Dullatur).

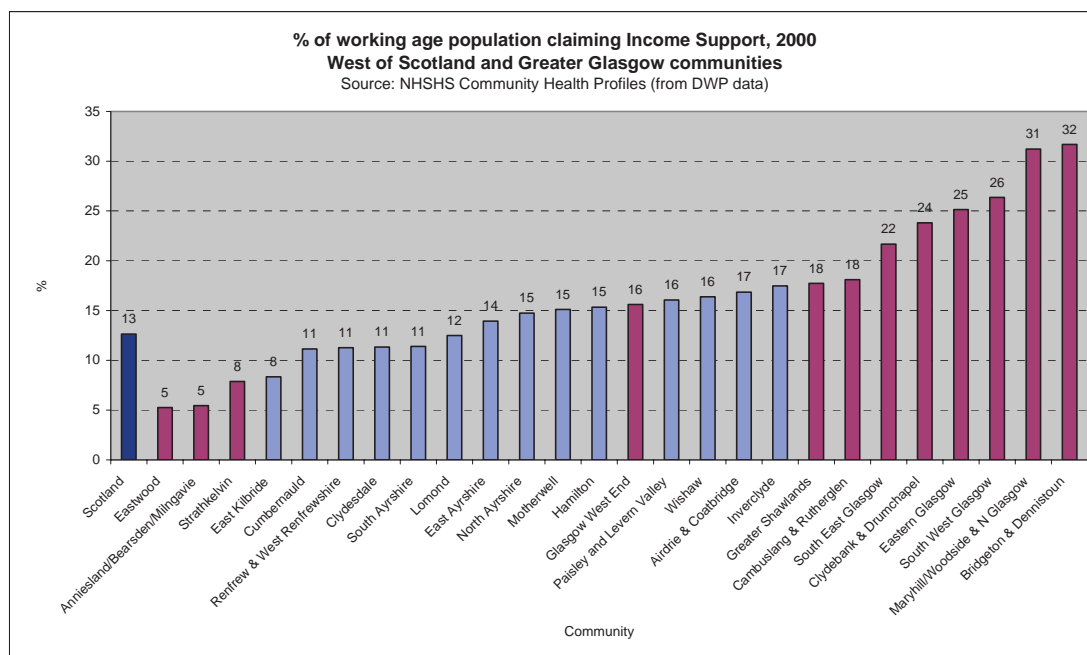
Figure 4.13



Income Support claimants

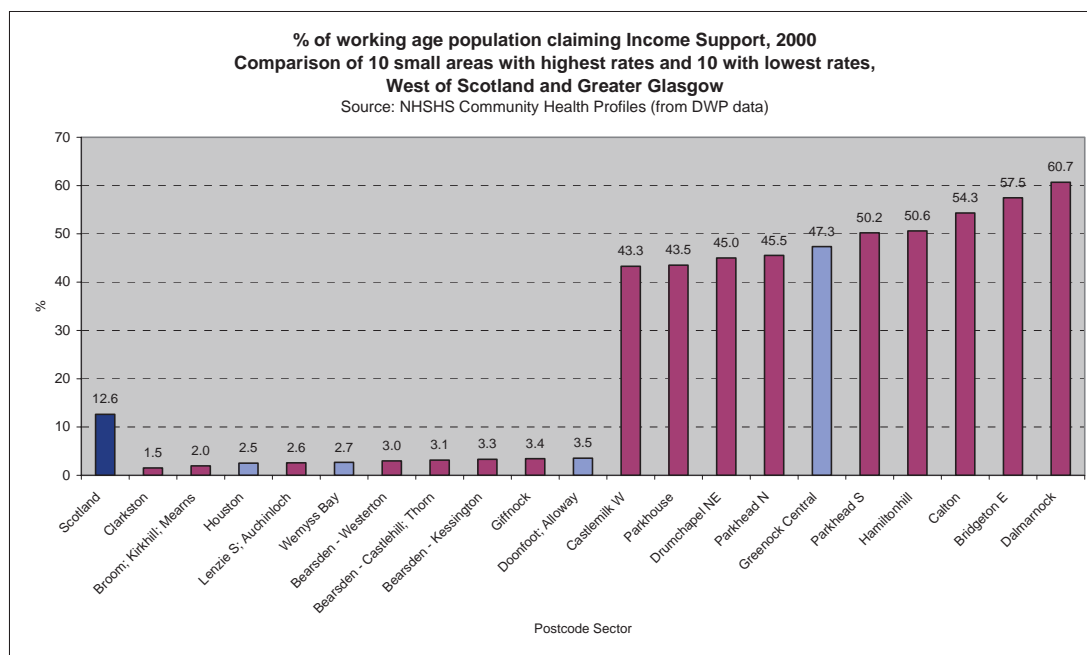
The rate of Income Support claimants provides a proxy measure of low income and shows a large variation across the West of Scotland. However it is within Greater Glasgow that the largest differences exist. In Eastwood and in Anniesland, Bearsden & Milngavie, 5% of the working age population in the year 2000 were claiming Income Support (IS), while in Maryhill, Woodside & North Glasgow and in Bridgeton & Dennistoun over 30% of working age adults were claiming these benefits (Figure 4.14).

Figure 4.14



The difference in rates of claiming is more dramatic when small areas are compared. In the ten areas with the lowest rates of claimants, between 1.5% and 3.5% of adults were claiming IS in 2000, while in the ten areas with the highest rates of claimants (nine out of ten of which were in Glasgow) 43% to 60% of adults were IS claimants (Figure 4.15).

Figure 4.15



Between 2001 and 2003, there was a small increase in the percentage of the working age population claiming Income Support nationally and across all the West of Scotland councils. In 2003, East Dunbartonshire had the lowest rate in the West of Scotland (5.6%) and Glasgow City had by far the highest (19.4%), equating to over 91,000 claimants.

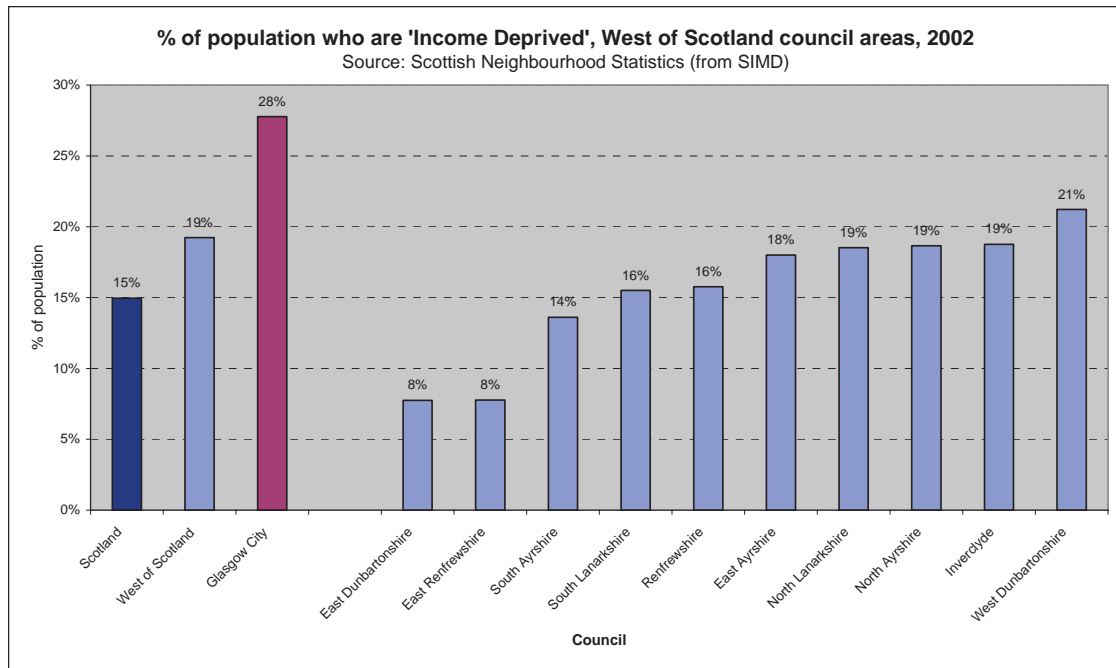
Income deprivation

This indicator is again taken from the Scottish Index of Multiple Deprivation (SIMD) and provides a measure of the percentage of adults and children living in households with lower than average incomes^{ix}.

At a national level it is estimated that in 2002 there were over 750,000 people, or 15% of the population, living in 'income deprivation'. Across the West of Scotland this percentage was higher (19%), but it varied greatly from 8% in East Dunbartonshire and East Renfrewshire to 28% in Glasgow City (Figure 4.16).

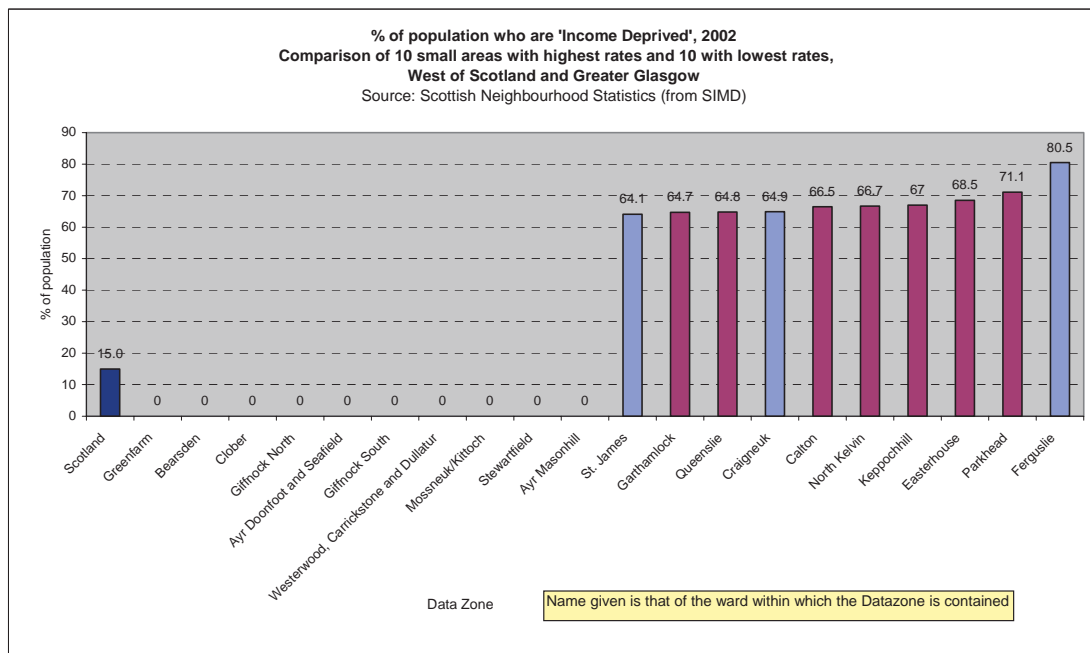
^{ix} Appendix 1 provides a more detailed definition of this measure.

Figure 4.16



At a data zone level across the West of Scotland, the proportion of working age adults categorised as income deprived varies hugely from areas where no one is living in income deprivation to areas where the percentage of the population in income deprivation ranges from 64% to 80%. While the majority of these data zones (seven out of ten) are in Glasgow City, two are in Paisley and one is in Craigneuk in North Lanarkshire (Figure 4.17).

Figure 4.17



Free school meals

At a council level, Glasgow City stands out as having the highest proportion of primary school pupils eligible for free school meals. At 42%, this is double the national figure and around five times the rate of East Dunbartonshire, the council area with the lowest eligibility rate in the West of Scotland (see Figure 4.18). In terms of trends, the graph also shows that the proportion of eligible pupils has fallen very slightly across all Scotland (from 24% in 1997 to the current figure of 21%) and Glasgow City has experienced a similarly small decrease over the eight-year period – down from 46% in 1997 to 42% in 2004.

Figure 4.18

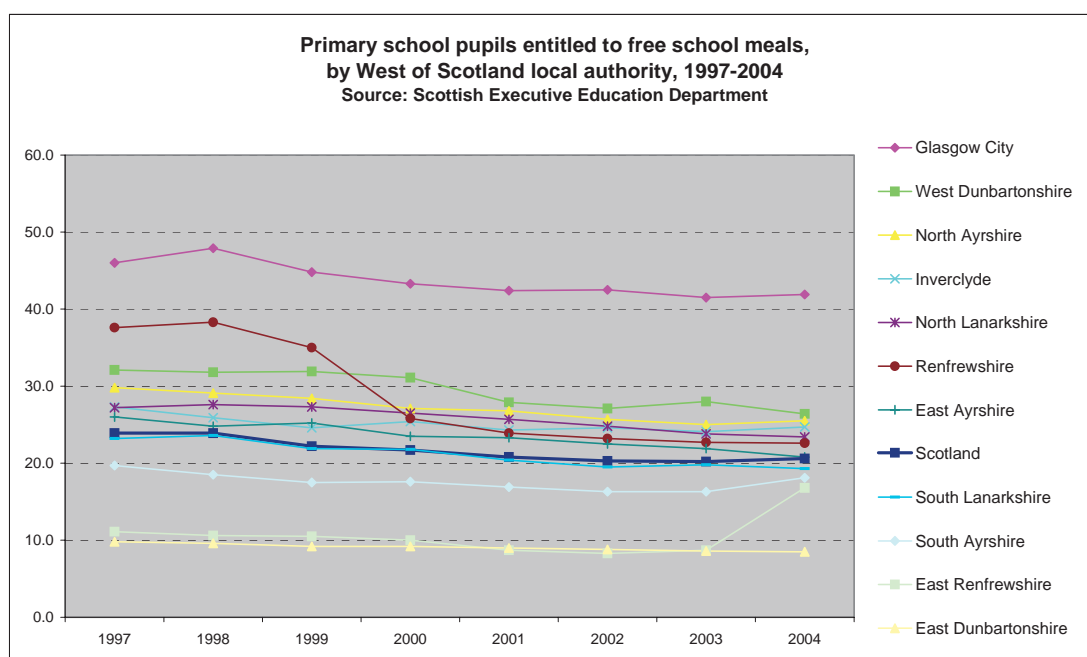
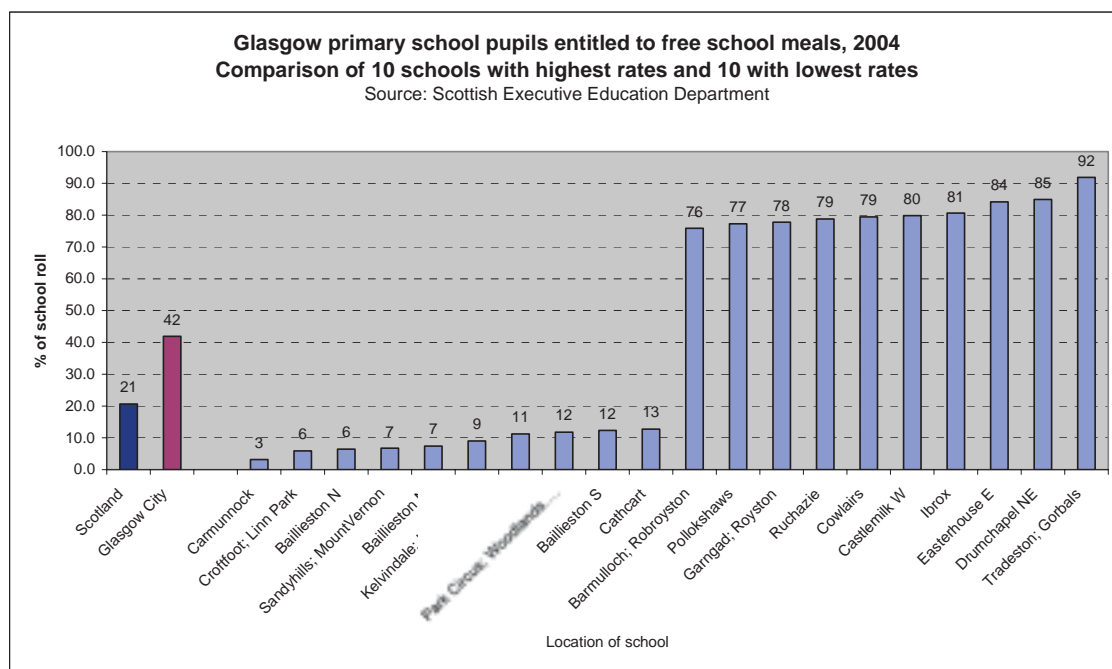


Figure 4.19 shows the variation within Glasgow between the ten schools with the lowest, and the ten with the highest rates (note that the data is presented by *location* of school). Schools with the lowest rates have between 3% and 13% of pupils eligible. At the other end of spectrum, the schools with the highest rates have between 76% and 92% of pupils eligible.

Figure 4.19



The figures on children living in workless households, which vary hugely across the West of Scotland and within Glasgow, are also clearly relevant to building up a picture of relative economic circumstances of households. In 2001, 36% of children lived in households in Glasgow where no one was in work⁷. This was double the Scottish figure. Further detail on children living in workless households is contained in Chapter 9: Children and adolescents.

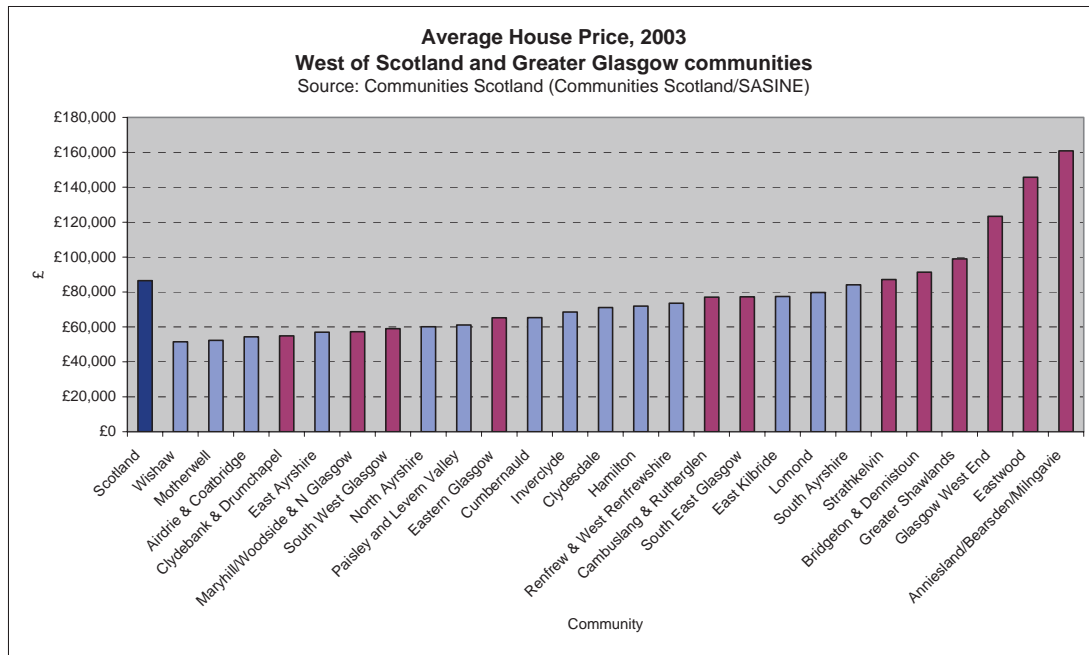
4.4 House prices

House prices are included in this section as they not only give an indication of the relative attractiveness of living in different neighbourhoods but, given their nature, are an indicator of wealth and, by extension, the affordability of living in particular areas.

The figures presented (provided by Communities Scotland) cover the year 2003 and, given the striking year-on-year increases in house prices within Scotland, will already be out of date. However, the relative differences between areas are unlikely to have changed significantly in the intervening period.

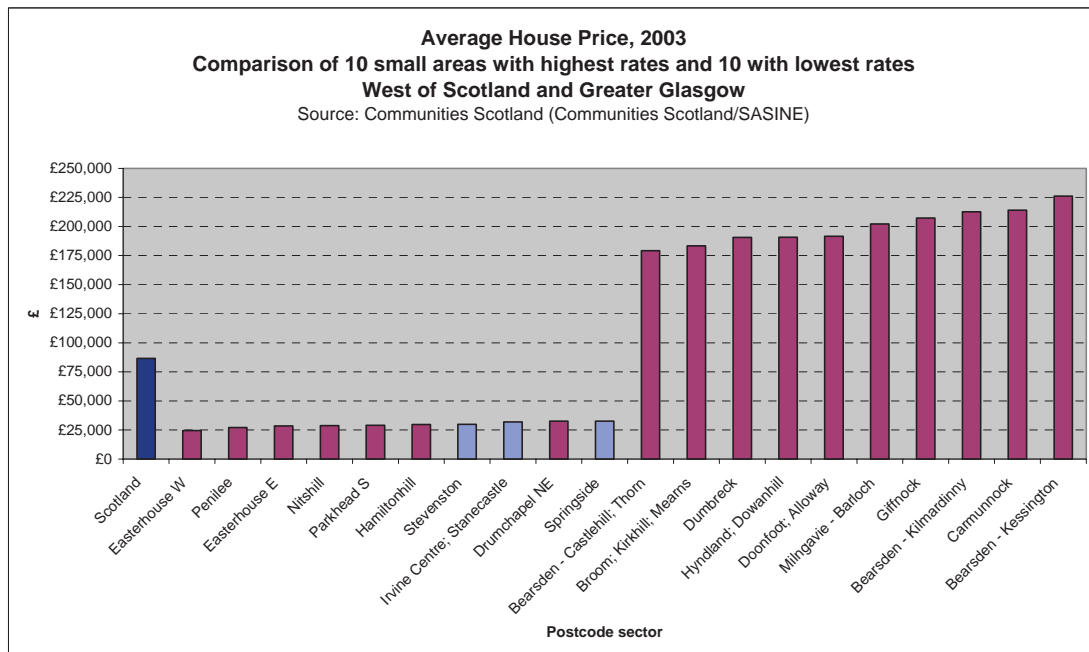
Figure 4.20 shows average house prices by West of Scotland community in 2003. The national average in this year was approximately £86,500, but at a community level this ranged from £51,500 in Wishaw to around £161,000 in Anniesland, Bearsden & Milngavie.

Figure 4.20



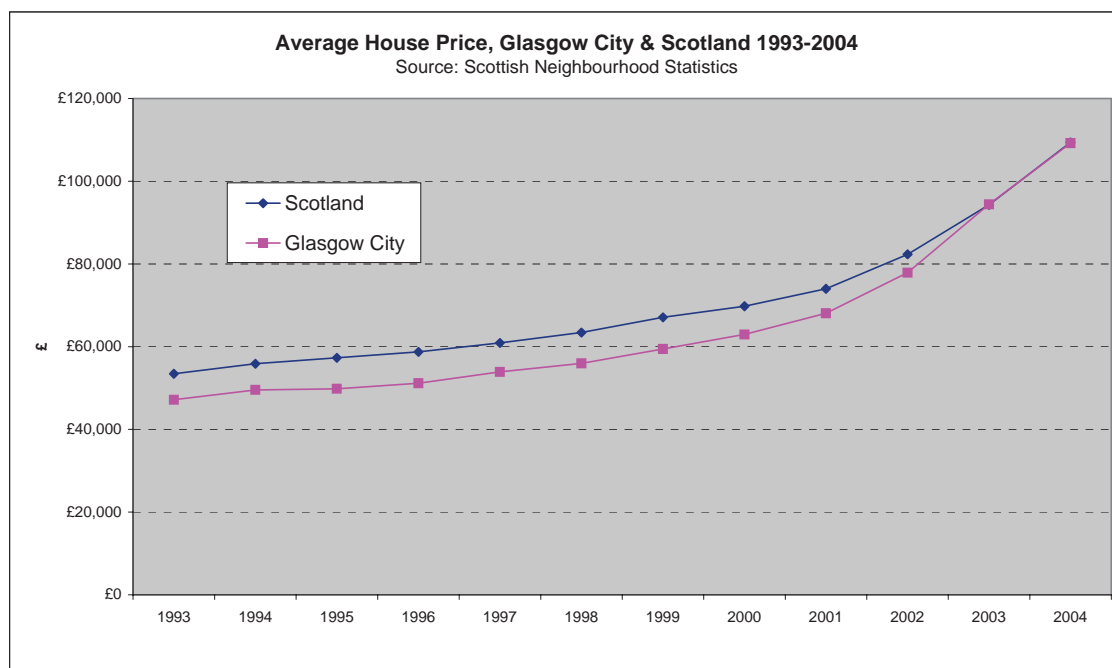
As ever, the variation at a small area level is even more striking. Figure 4.21 shows the ten postcode sectors with the lowest average price alongside the ten sectors with the highest price, with the figures ranging from under £25,000 in parts of Easterhouse to over £225,000 in Bearsden.

Figure 4.21



It is widely known that house prices have been rising in all parts of Scotland for over a decade. Figure 4.22, which shows average house prices for the period 1993-2004, illustrates this upward trend, but also shows the growing attractiveness of Glasgow's housing, which in terms of average house sale values has caught up with the Scottish average.

Figure 4.22



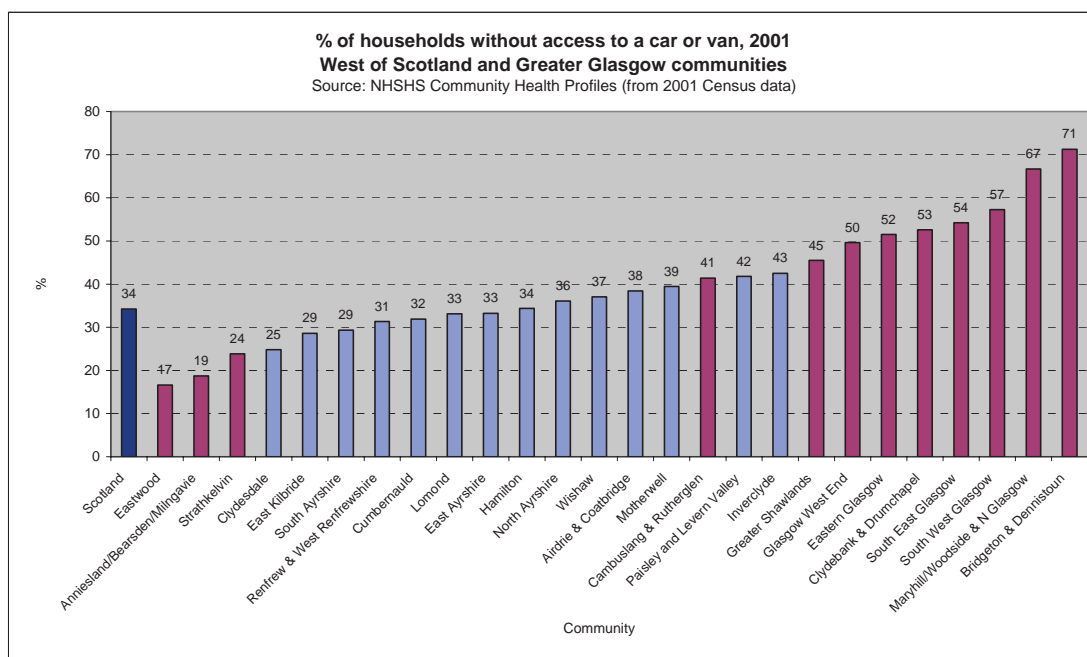
4.5 Households without access to a car or van

This is a measure normally derived from the Census and is a component of the Carstairs deprivation index^x. Access to a car is also a reasonable proxy for car ownership and, thus, for relative affluence, although patterns and trends in the prevalence of access to a car clearly also have important environmental influences (see Chapter 6: Physical environment).

Across the West of Scotland, and in Glasgow in particular, there is a huge variation in the percentage of households who do not have access to a car or van. In Eastwood and in Anniesland, Bearsden & Milngavie less than 20% of households do not have access to a car, while in Bridgeton & Dennistoun, the figure is above 70% (Figure 4.23).

^x Carstairs deprivation scores were originally developed by Vera Carstairs and Russell Morris. See the MRC Social and Public Health Sciences Unit website for more details: http://www.msoc-mrc.gla.ac.uk/Publications/pub/Carstairs_MAIN.html.

Figure 4.23



At a postcode sector level, comparing the ten sectors in the West of Scotland with the highest rates of access to the ten with the lowest rates, these differences are more pronounced with less than 10% of households without access to a car in some areas, but 77 to 81% in the areas of low car ownership – all of which are in Glasgow (Figure 4.24).

Figure 4.24

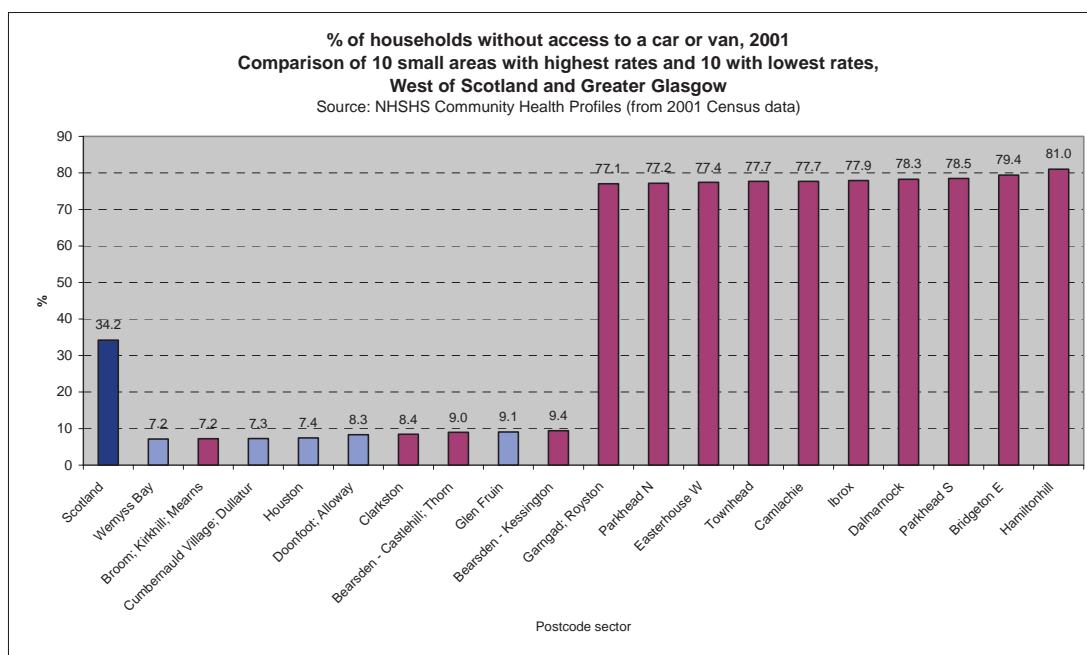
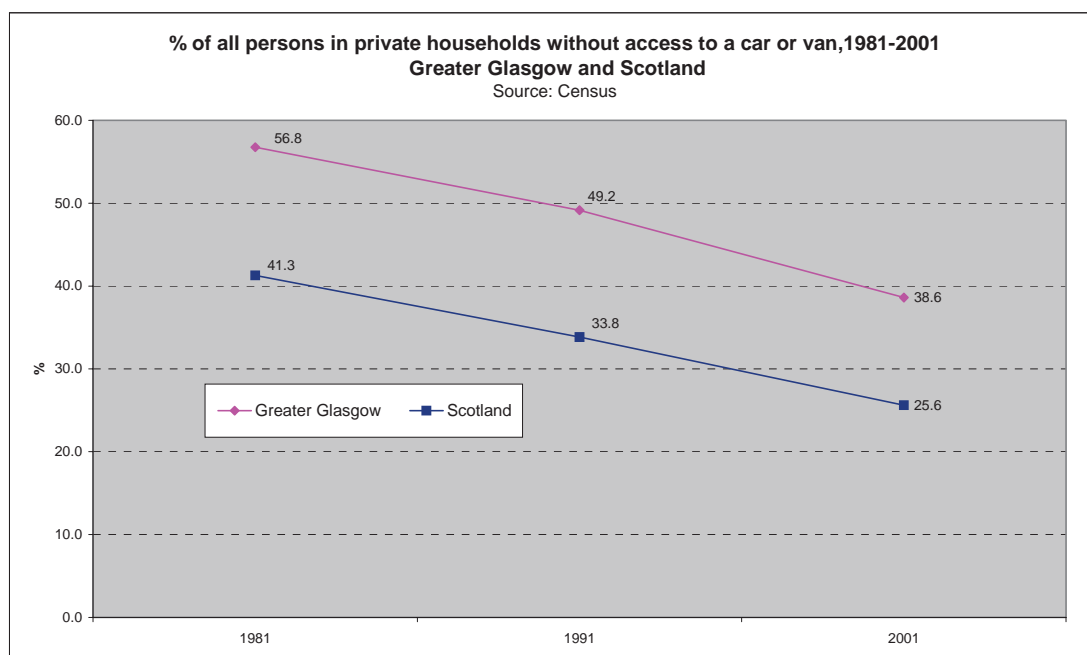


Figure 4.25 illustrates the downward trend in the population without access to a car over the last 20 years or (put another way) the growth of car ownership. In Scotland as a whole only a quarter of the population did not have access to a car in 2001 compared to 41% in 1981, while in Greater Glasgow lack of access to a car dropped from 57% in 1981 to 39% in 2001. It should be noted that this measure is slightly different from that used in Figures 4.23 and 4.24, which were based on *households* without access to a car or van.

Figure 4.25



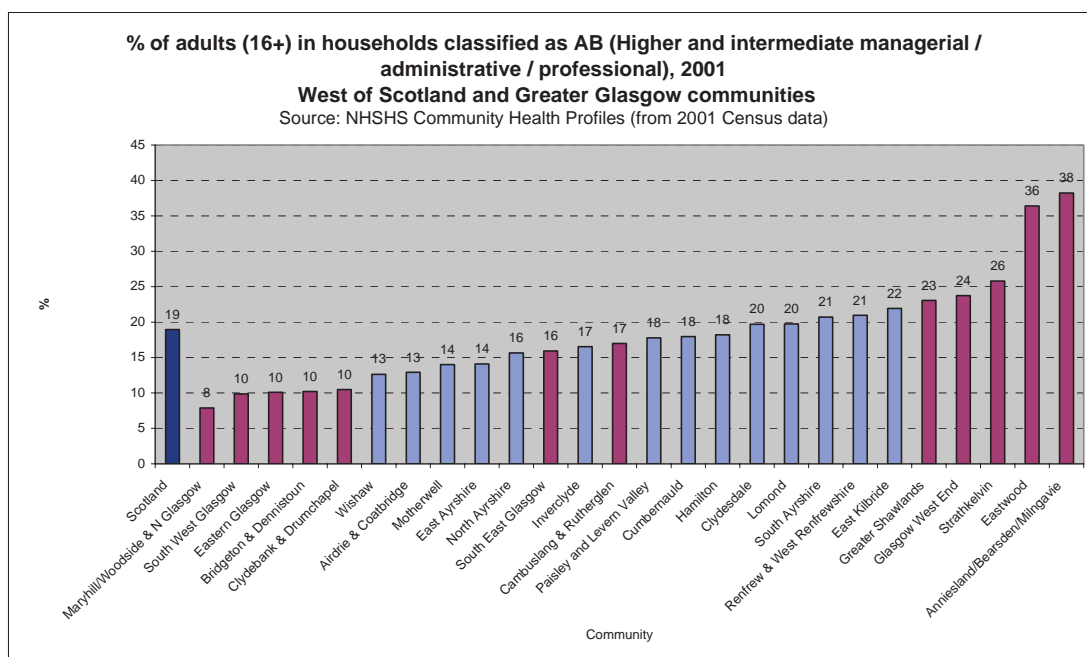
4.6 Social grade / social class

Social grade is the socioeconomic classification used by the market research and marketing industries^{xi}. The analyses described below compare the percentage of adults in households classified as social grade 'AB' (higher and intermediate managerial, administrative, professional) and as social grade 'E' (on state benefit, unemployed people, lowest grade workers) by community and postcode sector, based on data from the 2001 Census.

Across West of Scotland communities, the percentage of adults (16+) who are in households classified as 'AB' varies from 8% in Maryhill, Woodside and North Glasgow to 36% in Eastwood and 38% in Anniesland, Bearsden & Milngavie (Figure 4.26).

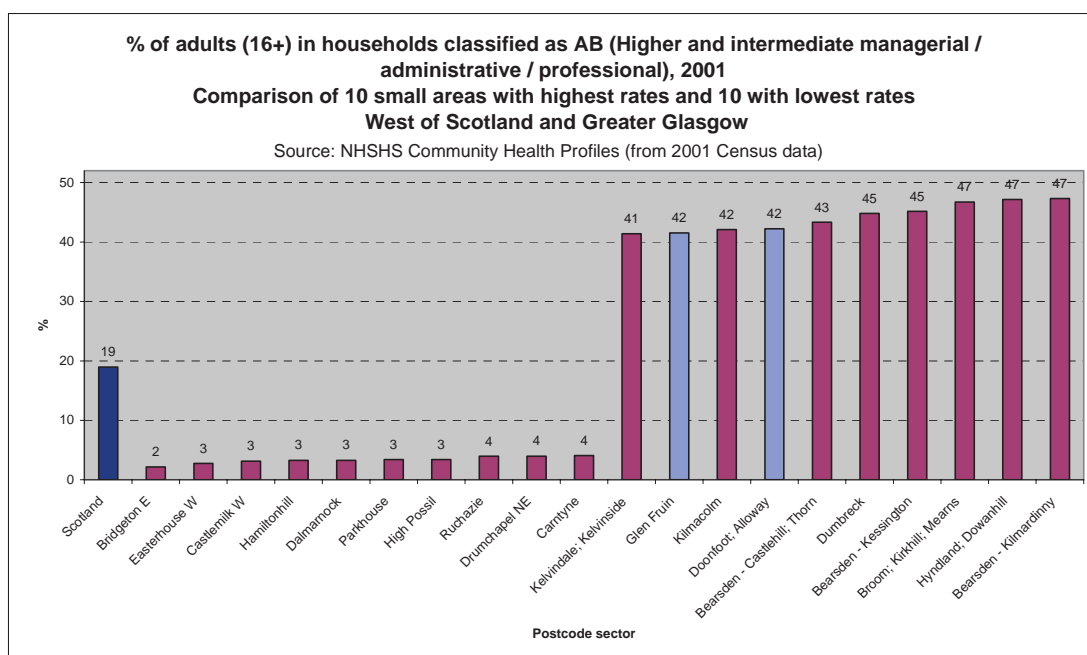
^{xi} Appendix 1 provides further details on the definition of 'social grade'.

Figure 4.26



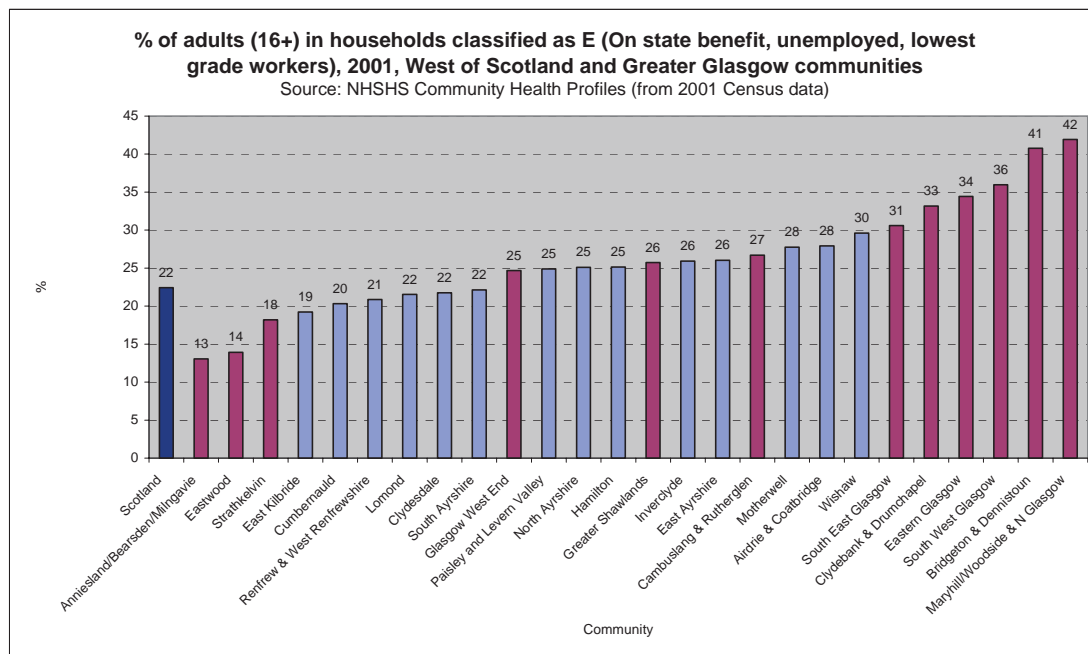
At a postcode sector level the differences in the social composition of populations are even more apparent (Figure 4.27). The ten areas with the lowest percentage of adults classified as ‘AB’ are all in recognisably deprived parts of Glasgow, where the percentage of adults classified as ‘AB’ ranges between 2% and 4%. In contrast, the ten areas with the highest rates are recognisably affluent areas, and adults classified as ‘AB’ make up between 41% and 47% of the adult population.

Figure 4.27



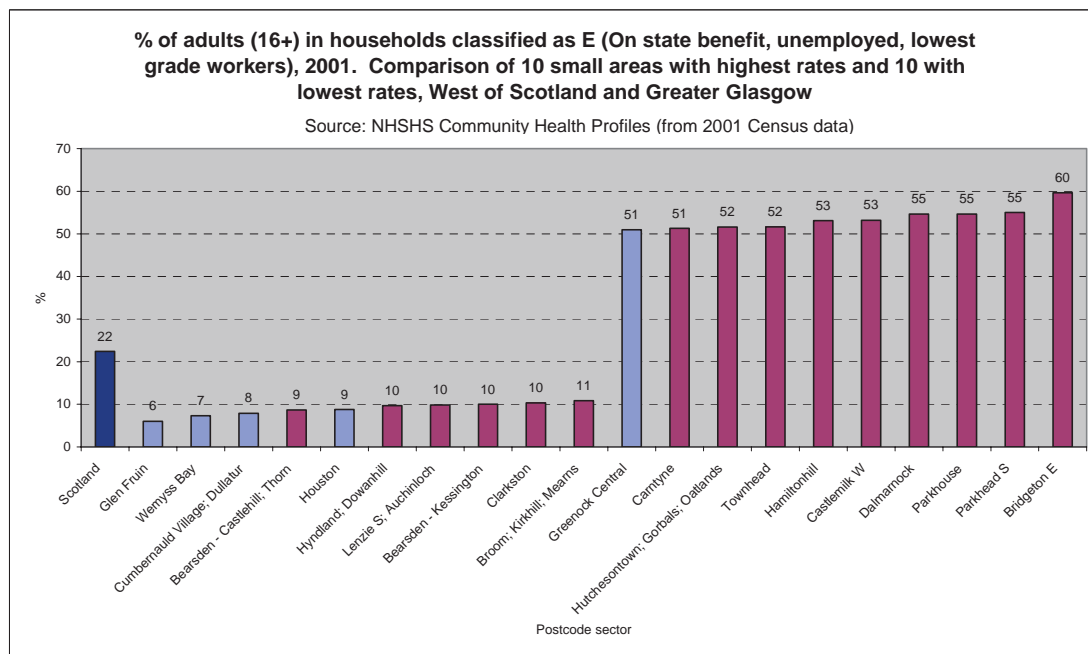
Across West of Scotland communities, the percentage of adults classified as social grade 'E' (those claiming benefit, unemployed people and the lowest graded workers) varies from 13% in Anniesland, Bearsden & Milngavie to 42% in Maryhill, Woodside & North Glasgow (Figure 4.28).

Figure 4.28



At a postcode sector level the contrast in social composition of areas is even clearer. In the ten areas with the lowest concentration of adults from social grade 'E' households, between 6% and 11% of adults are from households classified as social grade 'E'. While at the other extreme in the ten areas with the highest concentrations of adults from social grade 'E' households, over 50% of adults are classified as being from social grade 'E' households (Figure 4.29).

Figure 4.29



Changing nature of employment and social class in Glasgow

As recently as the 1971 census, Glasgow's employment was dominated by heavy engineering, textiles and chemical manufacturing. At that time, the policy emphasis was on moving toward light engineering and electrical products. Furthermore, large numbers of workers were engaged in the distributive trades for these manufacturing industries and in the production of food (including bread), drink and tobacco. The intervening period has seen a collapse in manufacturing but improved quality of work for those in employment. One way of capturing this change is to explore how social class has changed over the past 25 years.

With almost four out of ten of its population now in the top two social classes⁸ (see Table 4.2), Glasgow is not only comparable to the rest of Scotland in this regard but is similar to most other leading cities in the UK. In the same period, Glasgow has seen a 104% increase in owner occupation of housing (larger than the increase for Scotland as a whole at 80%).

Table 4.2 Social Class I and II in 1981 and 2001

	Social Class I & II 1981	Social Class I & II 2001	% change
Glasgow	18%	38%	+111%
Rest of West Central Scotland	28%	37%	+32%
Scotland	28%	37%	+32%

James Arnott, an analyst with Glasgow City Council and a member of the Glasgow Centre for Population Health's 'Observatory Group' will be bringing out a detailed analysis of the size and nature of such changes in Glasgow later in 2006. The publication of his report will be an opportunity to discuss these findings in more detail.

Summary

- In terms of business, it is clear that Glasgow has retained a position within the UK as a major business centre, and is rated second only to London as a retail centre. However, its economic output, although rising, is still growing more slowly than the Scottish average and Glasgow's ranking in terms of economic output has fallen relative to other UK cities in recent years. The service sector has grown to a position of predominance in Glasgow's economy, providing the bulk of the city's economic output and employment. In contrast, manufacturing has declined over the last 50 years and continues to do so.
- There are now more women than men in employment in Glasgow and part-time work has grown to represent more than a quarter of all jobs. The number of Glasgow residents in employment has grown in recent years (by more than 45,000 jobs in the period 1998-2004) but employment levels remain considerably lower than the Scottish average, although the gap has reduced.
- The official unemployment rate and the claimant unemployment rate have both reduced greatly over the last four to five years. Relative inequalities in employment between different parts of the West of Scotland, and within Glasgow, remain however, and official unemployment rates do not provide a true measure of the extent of worklessness. In Glasgow it is estimated that there are 110,000 adults who are not economically active, equating to 30% of the working age population.
- The 'employment deprived' measure used in the Scottish Index of Multiple Deprivation provides a measure of 'worklessness' due to unemployment, illness or disability and emphasises the size of this problem in the West of Scotland. In 2002, 235,000 adults in the region were defined as 'employment deprived', 54% of the Scottish total. Glasgow City alone contributed 85,000 people or 19% of the Scottish total. This measure, analysed at a small area level (data zone), illustrates the massive inequalities in employment that exist in the West of Scotland – ranging from 1 to 2% of adults being 'employment deprived' in the more affluent areas compared to over 60% of adults in the most deprived areas.
- Income for those in work has risen in recent years, both nationally and in Glasgow. However income inequalities are widening with those in the best-paid occupations having gained more relatively, and far more absolutely, in terms of pay.
- Income Support provides a good measure of those on low income (whether in employment or not) and it is across Greater Glasgow communities that the greatest inequalities are apparent. In 2000, there was a six-fold variation in the proportion of the working age population claiming Income Support; ranging from 5% in Eastwood and Anniesland, Bearsden & Milngavie to over 30% in Bridgeton & Dennistoun.

- A broader measure of income deprivation, taken from the Scottish Index of Multiple Deprivation, illustrates that, while across the West of Scotland 19% of the population are estimated to live in 'income deprivation', this figure varies greatly from 8% in East Dunbartonshire and East Renfrewshire to 28% in Glasgow City – the latter figure equating to over 160,000 of the city's population. In the most income deprived datazones of the West of Scotland, two thirds of the population live in 'income deprivation'.
- In terms of 'free school meals' eligibility, Glasgow City (at 42%) has double the national rate of pupils eligible for free school meals. Although this proportion represents a small reduction on the rate in 1997, Glasgow's eligibility rate is still the highest rate in Scotland and around five times the rate of East Dunbartonshire.
- In other ways, though, Glasgow appears to have become a wealthier city, although, or maybe because of this, the inequalities in wealth and status have become starker.
 - House prices have risen hugely in the last ten years and to a level in many areas where affordability has become a very real issue, especially for those on lower incomes. The variation in house prices across Glasgow at a small area level is striking, with average house prices (in 2003) ranging from under £25,000 in parts of Easterhouse to over £225,000 in Bearsden.
 - There has been an overall trend towards greater numbers of households with access to a car, but there are large variations in access levels across the West of Scotland and especially in Glasgow.
 - The proportion of Glasgow's population in the top two social classes has more than doubled since 1981 so that in 2001 four out of ten adults in Glasgow were classified as either Social Class I or II. Essentially, Glasgow now has more middle class jobs and its employment structure is similar to most other leading cities in the UK. However, there are wide variations in the distribution of these 'better' jobs across the city. For example, in Maryhill, Woodside & North Glasgow in 2001, 8% of adult residents came from households classified as 'AB' (higher and intermediate managerial / administrative / professional) compared to over 35% in Eastwood and Anniesland, Bearsden & Milngavie.
- In short, Glasgow has developed a service based economy over the last 20 years and is no longer dependent on manufacturing. While the city's middle class has grown and some parts of the city prosper from greater employment and higher wages, other parts of Glasgow have seen little improvement in circumstances. For those in the 'other Glasgow', many are dependent on income, disability and unemployment related benefits, and those who are earning are in low paid jobs.

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<http://www.scrol.gov.uk>
- ⁸ Arnott J. Socio-economic change in the Glasgow conurbation. *In press*

Summary

Glasgow City has by far the highest proportion of pupils from minority ethnic communities of any Scottish council (10.9%), equating to 7,500 pupils. It also has the highest percentage of pupils from less affluent households – 42% of primary school pupils were eligible to receive free school meals in 2004, double the national average.

Levels of educational attainment among adults and participation in higher education by young people display strong socio-economic patterning.

There are high proportions of lone parent families in many parts of Greater Glasgow, but also great polarity between areas with high concentrations (e.g. Bridgeton & Dennistoun) and those with much lower concentrations (e.g. Eastwood).

Two-thirds of Greater Glasgow residents feel that neighbours look out for each other in their local area and that people can be trusted in their local area.

Relatively low proportions of Greater Glasgow residents reported feeling isolated from friends and relatives (15% of respondents).

The majority of Greater Glasgow residents have a positive perception of their local area as a place to live and to bring up children. However, people living in more deprived parts of the city are much less positive about their local areas compared to those from more affluent areas.

Homelessness applications in Glasgow have been consistently double the Scottish average for the last eight years and are much higher proportionately than in the other West of Scotland council areas.

Glasgow City has the highest overall crime rate among councils in Scotland and within the West of Scotland, Glasgow has the highest rates for a range of crime types.

Analysis of violent crime in Glasgow shows that male offenders outnumber females by over three to one and the peak ages for offenders and victims are the mid-teenage years to early twenties. The areas of residence of violent offenders and victims of violence are highly correlated with deprivation. In some smaller communities in Glasgow over one in ten people have been the victim of a violent crime in the last three years.

West Dunbartonshire and Glasgow have the highest and second highest rates of domestic abuse, respectively, in the West of Scotland.

Rates of assault admission in Glasgow are much higher than the Scottish average across all ages. Admissions after 'assault by a sharp object' predominate, a reflection of the high rates of knife crime in the city.

“Glasgow City has by far the highest proportion of pupils from minority ethnic communities of any Scottish Council.”

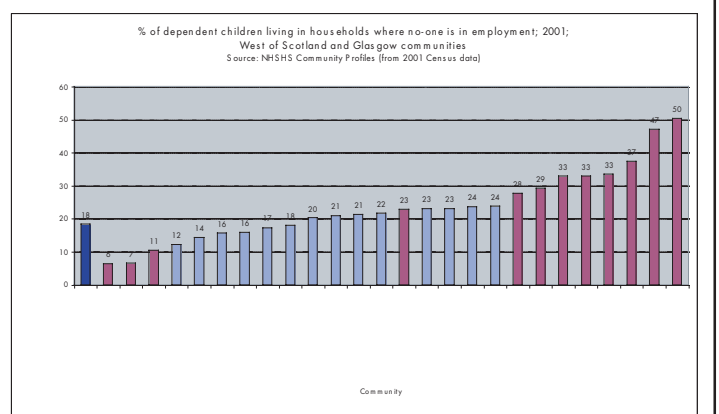
“Two-thirds of Greater Glasgow residents felt that neighbours look out for each other in their local area and that people can be trusted in their local area.”

“Glasgow City has the highest overall crime rate among councils in Scotland.”

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 5: Social environment

How we behave, our relationships, our gender and ethnic group, our education and work, the conditions and communities in which we live, and how we feel about ourselves are all elements of the social environment. These elements overlap and interact with elements of the physical environment to influence our health and impact on the quality of our lives, as well as how long we live. The fact that the social environment encompasses such a large number of different yet overlapping topics means that there is a similarly large number of different data sets relevant to its measurement and understanding.

Many of the topics relevant to describing the social environment of Glasgow and the West of Scotland are covered in other chapters (e.g. ethnicity, changes in patterns of employment, behavioural trends, etc.). In this chapter we focus on only a handful of topics: education, vulnerable households, social capital, crime and homelessness. Given this limited set of topics, we do not claim that this represents a comprehensive overview of the social environment of the city and the wider surrounding area. However, we believe that much of the data compiled is either new or has not been brought together in such a way before, and the insights these data provide will aid our understanding of life in Glasgow and the West of Scotland area.

5.1 Education

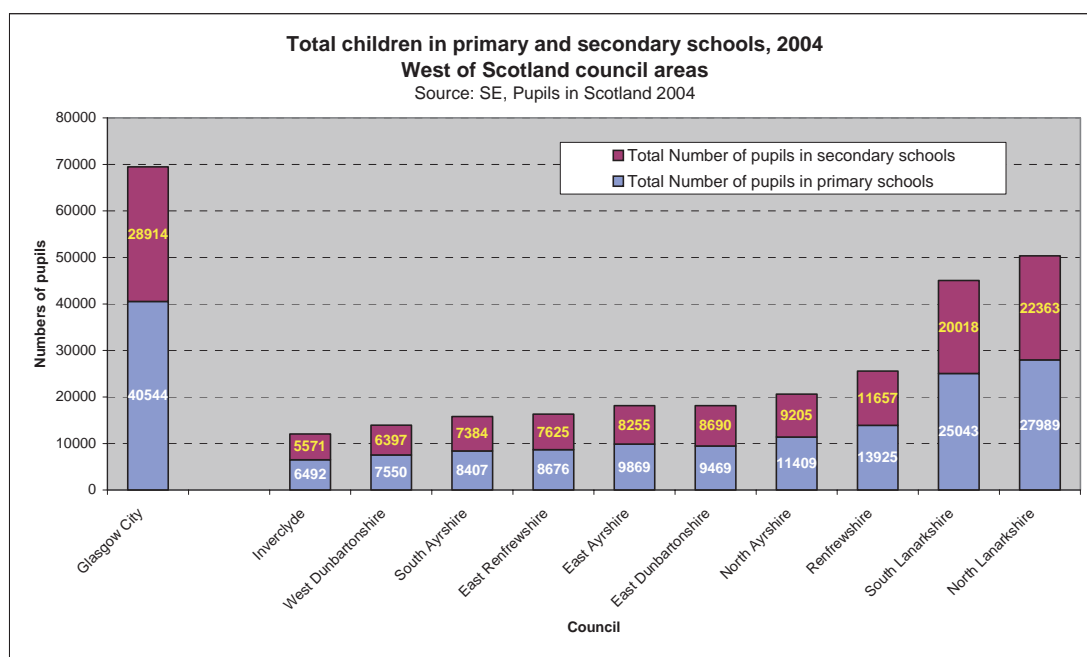
This section covers three main themes: the size of the school populationⁱ, and its socio-economic and ethnic composition; educational attainment of adults; trends and patterns in participation in higher education.

Size of the school population

In 2004 there were 170,000 primary school children in the West of Scotland, representing 43% of all Scottish primary school children. Within Glasgow City there were just over 40,000 primary school children, 24% of the total for the West of Scotland. At secondary school level there were 136,000 pupils in the West of Scotland, representing 43% of the Scottish total, while Glasgow City had 28,900 secondary school pupils, 21% of the total for the West of Scotland. Figure 5.1 shows school pupil numbers across the West of Scotland council areas.

ⁱ All pupil figures quoted relate to pupils in publicly funded schools in Scotland.

Figure 5.1

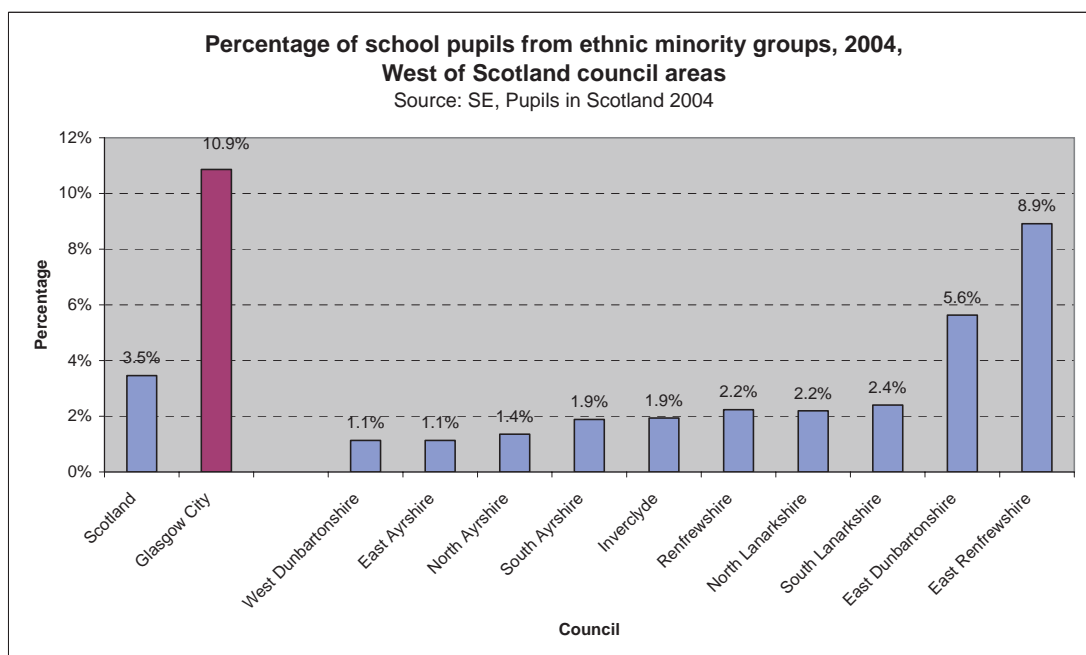


Socioeconomic and ethnic background of school pupils

Glasgow City has the largest proportion of pupils from low income families, as was demonstrated in Chapter 4: Economic factors, with reference to the proportion of pupils eligible for free school meals. 42% of all Glasgow primary pupils were eligible for free school meals in 2004, representing over 17,500 of the 42,000 primary pupils in Glasgow. This proportion is double the national average and five times the level of eligibility in East Dunbartonshire.

In terms of ethnic background, 10.9% (over 7,500) of Glasgow's primary and secondary pupils were from minority ethnic groups in 2004 (Figure 5.2). This is by far the highest proportion of any Scottish local authority and is three times the Scottish average. Elsewhere in the West of Scotland there were above average percentages of pupils from ethnic minorities in East Dunbartonshire (5.6%) and in East Renfrewshire (8.9%)

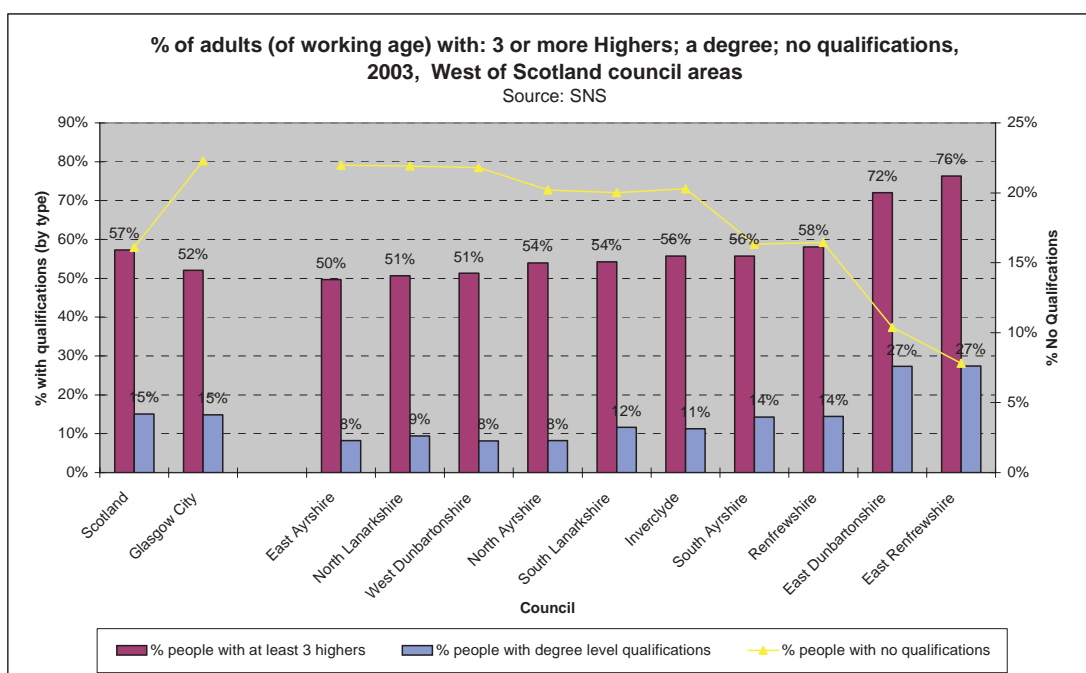
Figure 5.2



Educational attainment of adults

Comparing attainment on three measures – adults of working age with three or more 'Highers'; a degree; no qualifications – across West of Scotland council areas, clear patterns emerge (see Figure 5.3). Glasgow has a lower proportion of adults with three or more Highers than Scotland as a whole (52% vs. 57%), the same proportion of adults with a degree as the Scottish average and more people without a qualification (22% vs. 16%). Two West of Scotland Councils, East Dunbartonshire and East Renfrewshire, stand out as having much better qualified residents on average than in the rest of the West of Scotland and in comparison to the Scottish average.

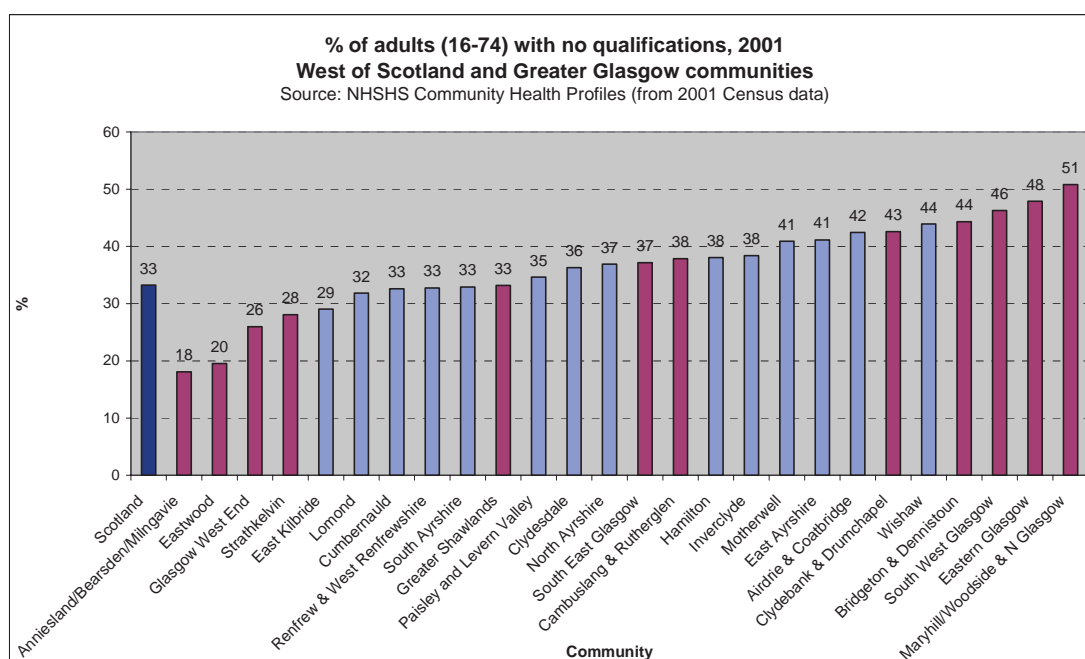
Figure 5.3



Adults with no qualifications at community and postcode sector level

The following graphs show the pattern of adults (16-74) with no qualifications across the West of Scotland in more geographic detail, drawing on data published in NHS Health Scotland's Community Health profiles¹. In Scotland as a whole 33% of adults aged 16-74 did not have a qualification in 2001. Across West of Scotland communitiesⁱⁱ, there are wide variations in this measure: in Anniesland, Bearsden & Milngavie and in Eastwood, 18% and 20% of adults, respectively, did not have a qualification, while in South West Glasgow, Eastern Glasgow and Maryhill, Woodside & North Glasgow, 45% or more of adults had no qualification (Figure 5.4). In the last of these areas, over half of all adults did not have a qualification.

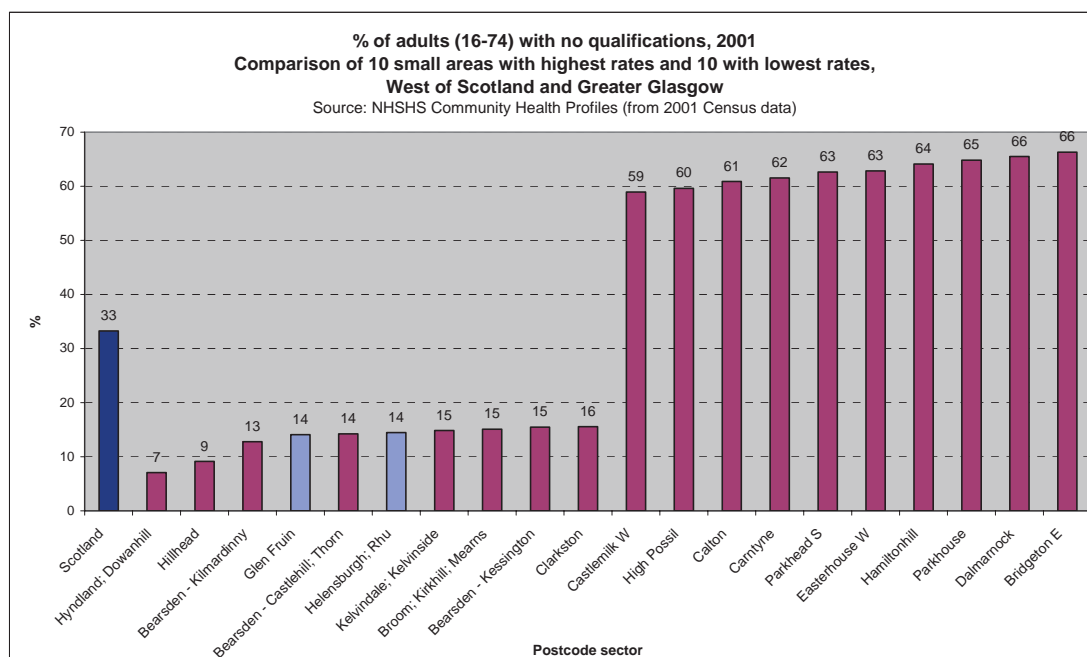
Figure 5.4



At a postcode sector level there are even greater variations observed (see Figure 5.5). In the ten areas with the lowest percentages of adults with no qualifications, between 7% and 16% of adults do not have a qualification, while in the areas with the highest rates (all in deprived parts of Glasgow) between 59% and 66% of adults have no qualification.

ⁱⁱ These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see 'Preface to Chapters 2-12'.

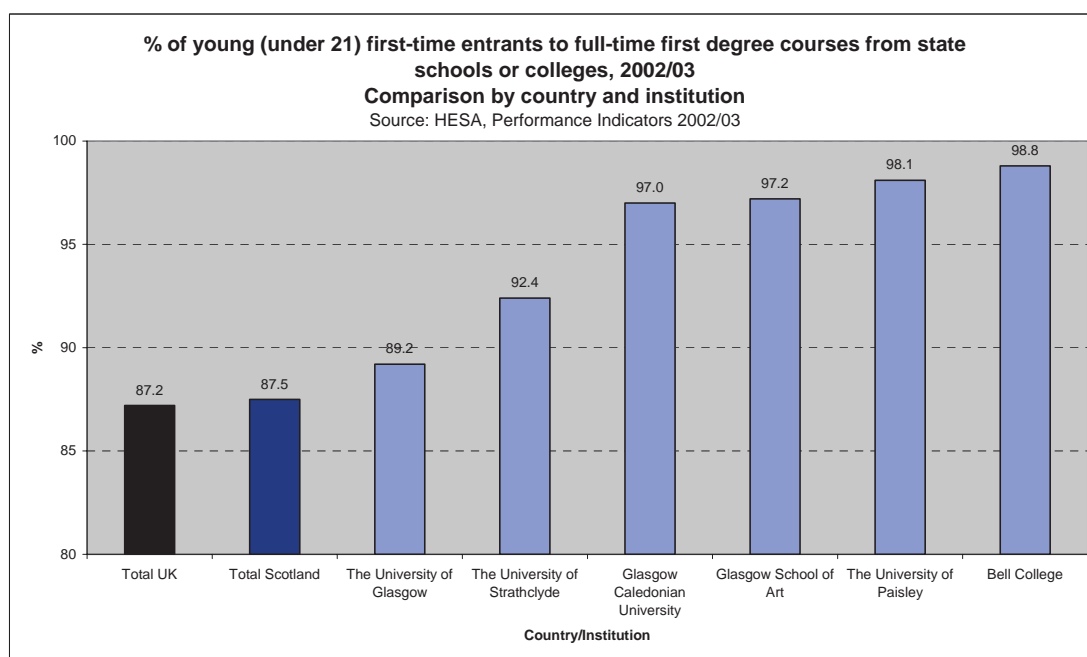
Figure 5.5



Trends and patterns in participation in higher education

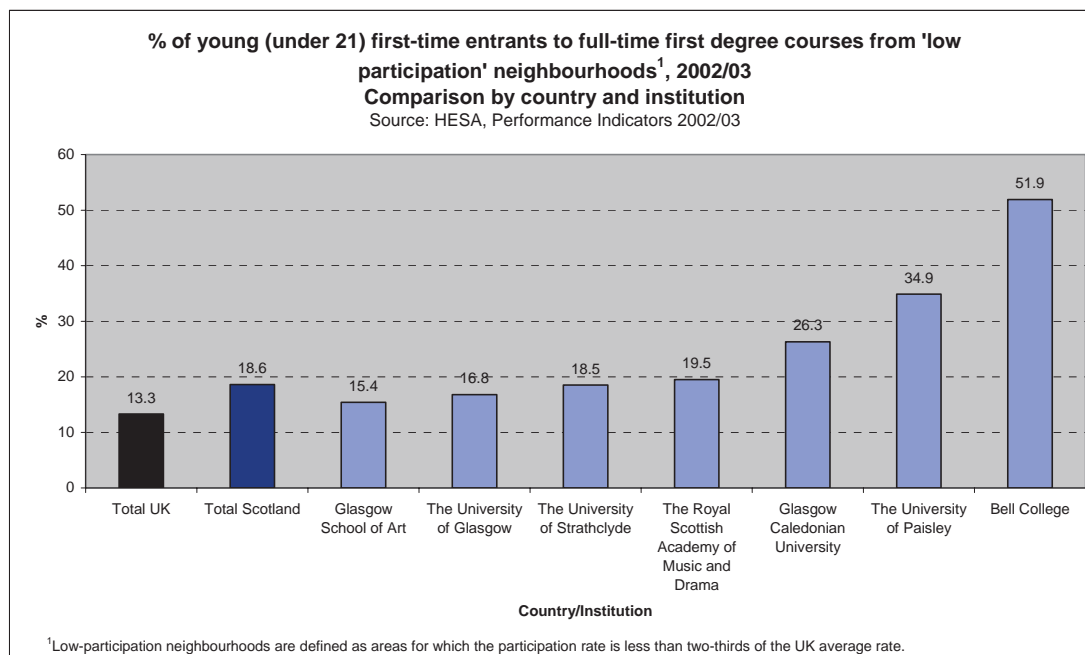
Figures on entrants to higher education, provided by the Higher Education Statistics Agency (HESA), shed some light on the backgrounds of new entrants to full-time first-degree courses. Across Scotland in the university year 2002/03, 87.5% of students came from state schools or colleges, while in the main higher education institutions of the West of Scotland the percentage is higher, although there is considerable variation between institutions² (Figure 5.6).

Figure 5.6



HESA have also classified entrants by whether they come from ‘low participation’ neighbourhoodsⁱⁱⁱ (see Figure 5.7). The percentage of young first-time entrants to higher education from such areas was 18.6% across Scotland in 2002/03 and varied considerably among the West of Scotland Higher Education institutions from 15.4% of new students of Glasgow School of Art to 51.9% of new young entrants to Bell College.

Figure 5.7



Data provided by HESA has facilitated a detailed geographic analysis of new student participation rates across the West of Scotland for students domiciled in Scotland. Before discussing the results it is worth noting a major caveat surrounding this analysis, which relates to the accuracy of the population denominator used to create the rates^{iv}. Given this caveat, the actual rates created should be treated with caution, although we believe that the figures are robust enough to make relative comparisons between areas.

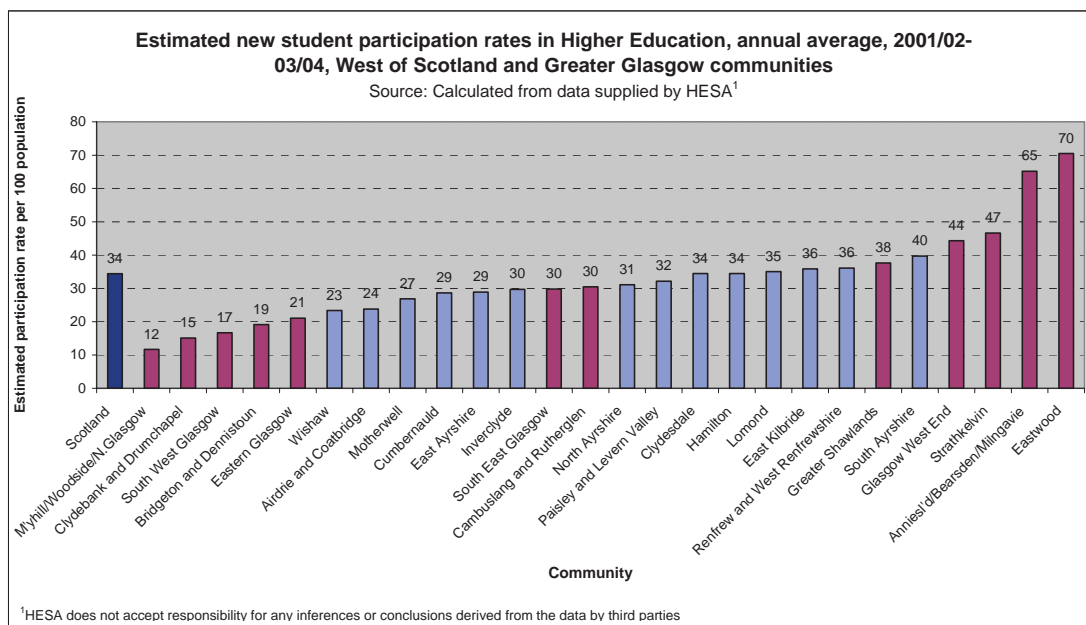
A comparison of annual rates (averaged over three recent years – 2001/02-2003/04) across West of Scotland communities^v shows wide variation in participation rates (see Figure 5.8). While the Scottish figure is 34%, in Maryhill, Woodside & North Glasgow the participation rate was estimated to be only 12%. It was only slightly higher at 15% in Clydebank & Drumchapel. In four Greater Glasgow communities (including these two) participation rates are estimated to be less than 20%. At the other end of the spectrum, participation rates in Glasgow West End and Strathkelvin are estimated to be above 40% and, in Anniesland, Bearsden & Milngavie and in Eastwood, 65% or above.

ⁱⁱⁱ Low-participation neighbourhoods are defined as areas for which the participation rate is less than two-thirds of the UK average.

^{iv} In the absence of more up to date population data, the population of 17 year olds in 2001 (from the Census) has been used as the denominator in order to create participation rates. This denominator is clearly not precisely matched with the numerator in terms of time period or age range.

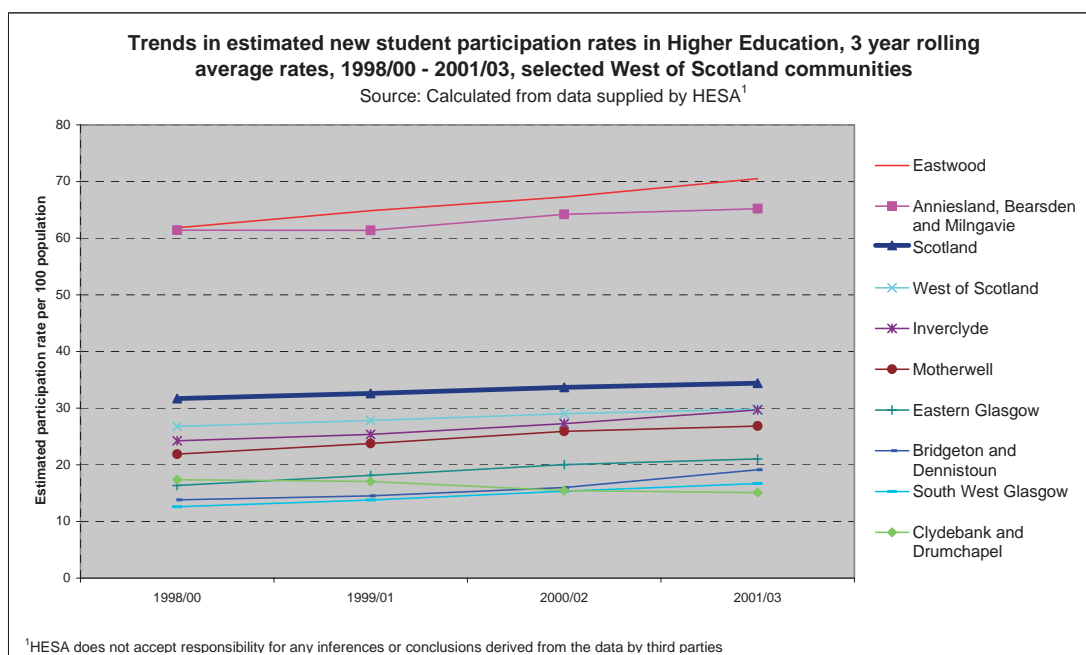
^v The same communities used in NHS Health Scotland’s Community Health and Well-being profiles¹.

Figure 5.8



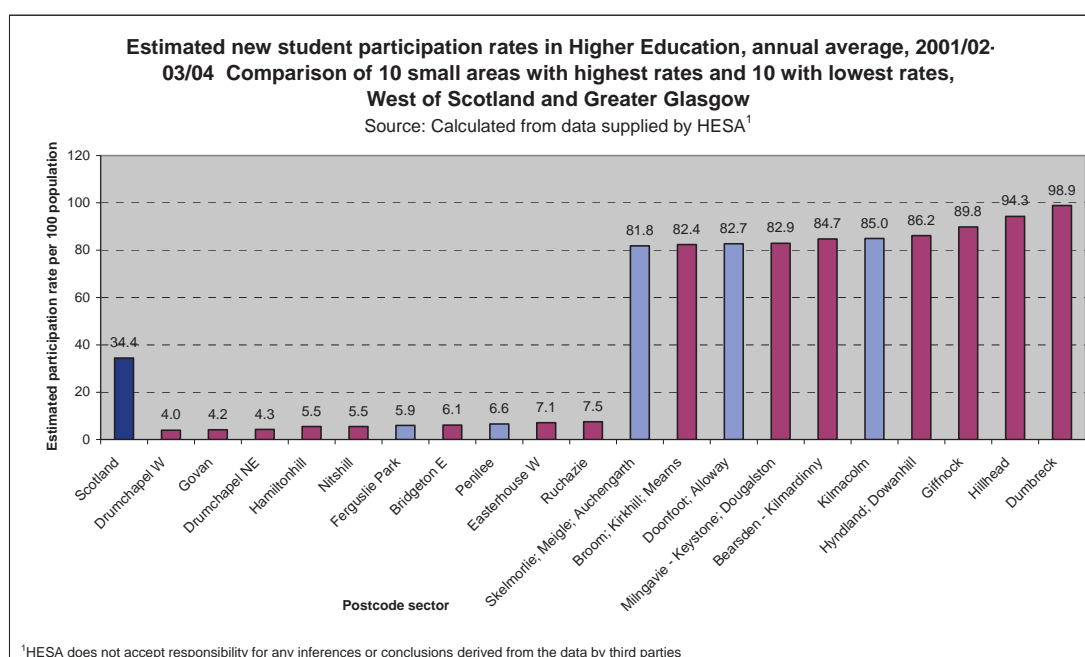
It has been possible to create trends over recent years based on three-year average rates at a community level, although the participation rates are subject to the same caveats as above. At a national level, there has been a rise from 31.7% to 34.4% and rises have also occurred across many of the West of Scotland communities, including many of the more deprived communities (Figure 5.9). The graph shows trends for selected communities. The majority of ‘below average participation’ communities have shown a rise, although in one, Clydebank & Drumchapel, the rate appears to have fallen. Despite general increases in rates of participation in Higher Education, there does not appear to be any narrowing of the gap between the traditionally ‘high participation’ communities of Anniesland, Bearsden & Milngavie and Eastwood and the rates in less affluent communities.

Figure 5.9



At a postcode sector level, the caveats about the accuracy of estimated participation rates are even more pertinent. Nevertheless, bearing this in mind, the comparison of the ten highest participation areas (postcode sectors) with the ten lowest participation areas produces striking results (see Figure 5.10). The ten areas of lowest participation all have rates of below 10%, while, in the highest participation areas, rates of participation are above 80%. While there may be considerable inaccuracy in the estimated rates for individual areas, the overall pattern is clear. There are parts of the West of Scotland where a university education is the ‘norm’ for the majority of young people, while, at the other extreme, there remain many other areas where only a small minority of pupils would be expected to go on to this level of education.

Figure 5.10



5.2 Vulnerable households

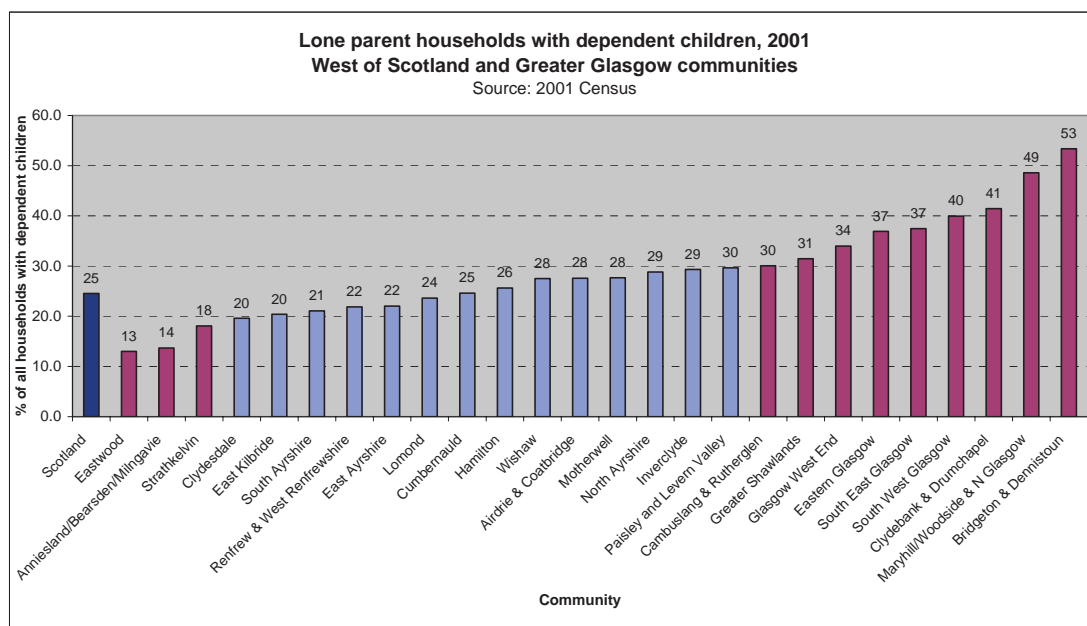
This section focuses on levels and distributions of lone parent and lone pensioner households across the West of Scotland.

Lone parents^{vi}

In 2001, lone parent households made up 25% of all households with children. Across the West of Scotland communities (see Figure 5.11), this measure varies from 13% in Eastwood and 14% in Anniesland, Bearsden & Milngavie to 49% and 50%, respectively, in Maryhill, Woodside & North Glasgow and in Bridgeton & Dennistoun.

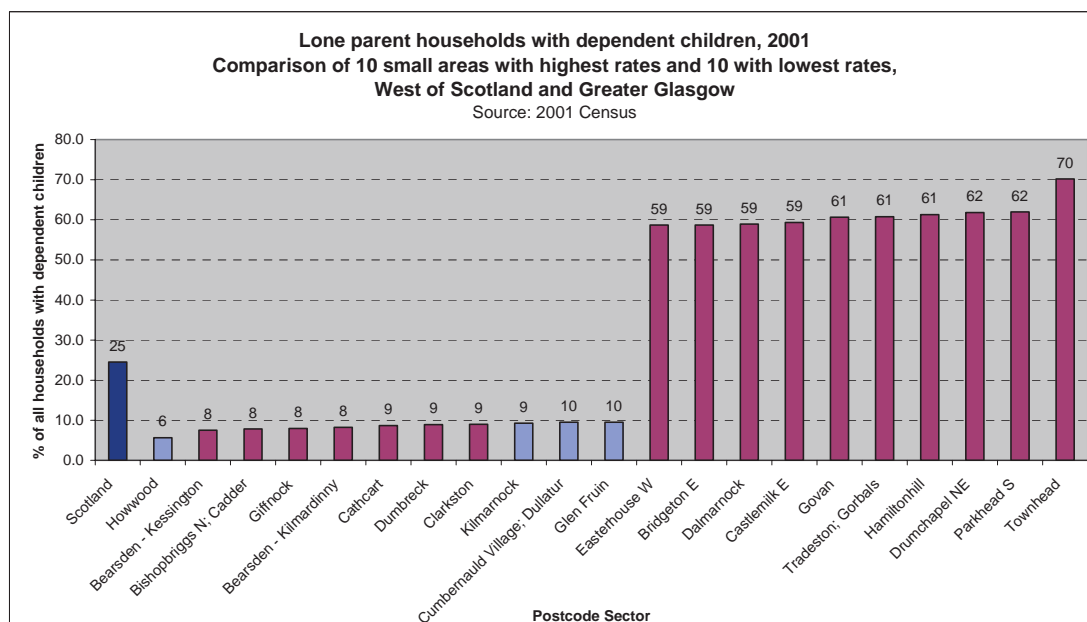
^{vi} It should be noted that the measure described in this section – lone parent households with dependent children taken as a percentage of all households with dependent children – is slightly different to that used to describe lone parent households in the household projections section of Chapter 3: Population and life expectancy.

Figure 5.11



At a postcode sector level, the variations across the West of Scotland are even more pronounced (Figure 5.12). In the ten areas with the lowest rates, the percentage of lone parent households varies from 6%-10%, while in the ten areas with the highest rates the percentage of lone parent households varies from 59%-70%. All ten areas with the highest rates are in Glasgow.

Figure 5.12

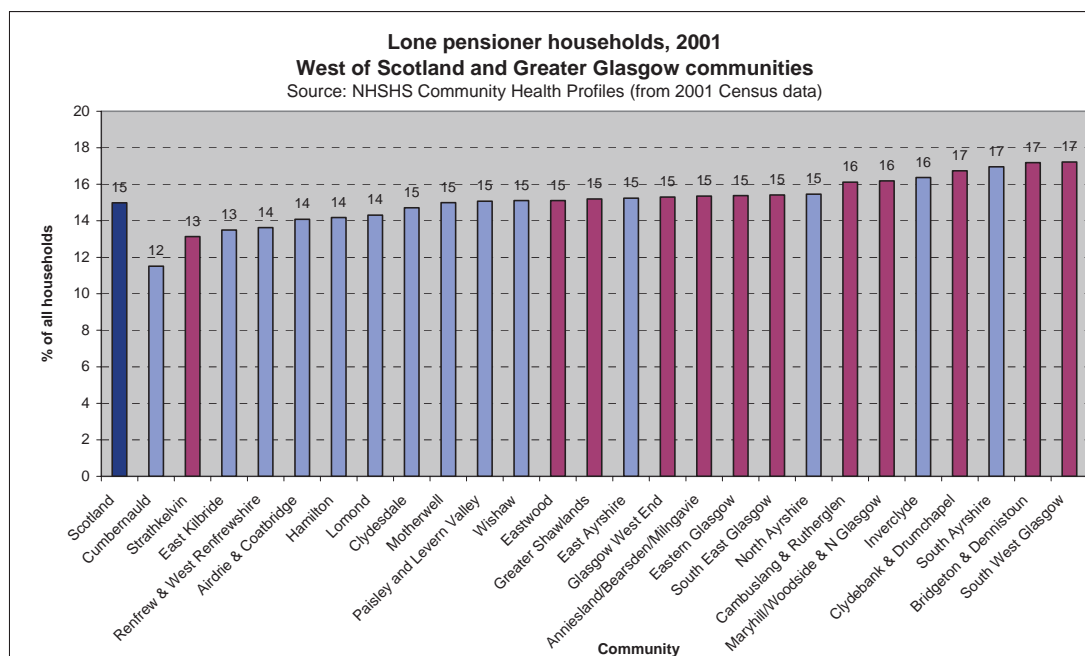


Household projections, commented on already in Chapter 3: Population and life expectancy, predict that the proportion of lone parent households will increase, and in Glasgow it is predicted that lone parent households will become almost as common as households with two adults and children (48% in 2016).

Lone pensioners

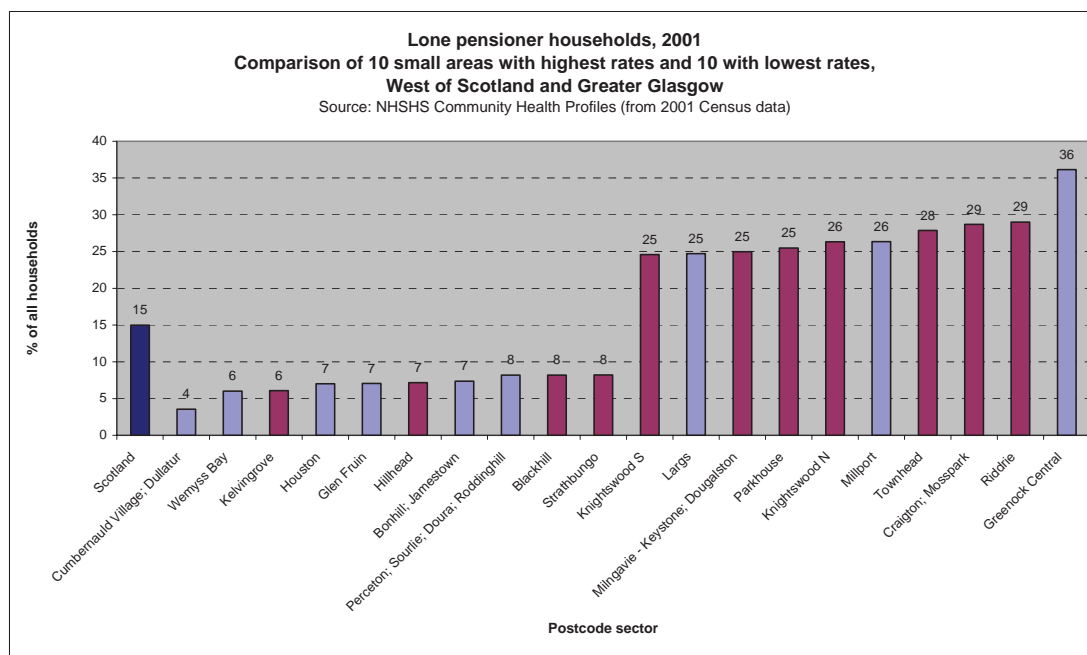
Nationally, lone pensioner households made up 15% of all households in Scotland in 2001. Across West of Scotland communities (see Figure 5.13), this measure varies from 12% in Cumbernauld to 17% in South West Glasgow, but for most communities is close to the national average.

Figure 5.13



Greater variation is apparent at a postcode sector level (see Figure 5.14). In the ten areas with the lowest percentages of lone pensioners, only 4-8% of all households were occupied by lone pensioners, while in the ten sectors with the highest percentages of lone pensioners, 25-36% of households were lone pensioner households (Figure 5.14). In the latter areas the high proportion of lone pensioners is related to the high proportion of elderly living in the area. It is also known that in some areas, for example, Knightswood and Mosspark, many residents bought their houses from the Council and have remained in the area for much of their adult lives, and that this may contributed to the older age structure in these areas.

Figure 5.14



Projections of lone pensioner households are not available. However, given the projected increases in the elderly population in most West of Scotland councils and predicted increases in single adult households, it seems likely that lone pensioner households will also continue to rise.

5.3 Social capital

In this section various measures of social capital are presented, mainly for the Greater Glasgow area as a whole, but also broken down by deprivation. The data presented are taken from the 2002 Greater Glasgow Health and Well-being Survey^{3,vii}. The measures included are: civic engagement, reciprocity, trust, membership, feelings of isolation, volunteering, and perception of area as a place to live and bring up children. The final part of the section describes patterns and trends in voter turnout and attitudes to voting.

Civic engagement

Figures 5.15 and 5.16 present two measures of *civic engagement*: first, whether respondents had undertaken any ‘responsibilities’ in terms of being a committee member/event organiser/fund-raiser etc. in the previous three years (Figure 5.15), and, second, whether respondents had taken any actions to solve a local problem in the previous three years (Figure 5.16). In both cases, the proportion of respondents to whom this applied was small: 7% and 11% respectively. In both cases, the proportions within the three deprivation groupings used in the analysis differed significantly: respondents in the *less* deprived areas were more likely to have been a committee member etc. (11%), while those in the *more* deprived areas were more likely to have taken action to address a local problem (13%).

^{vii} Comparisons with figures from a previous survey in 1998 are made where significant changes in results have been noted.

Figure 5.15

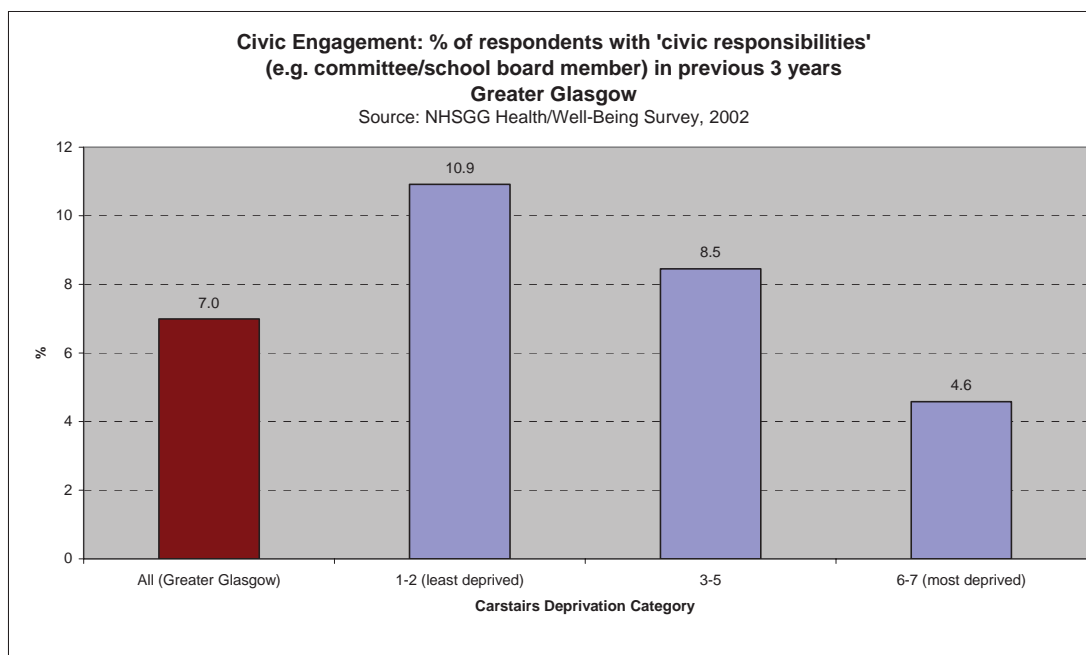
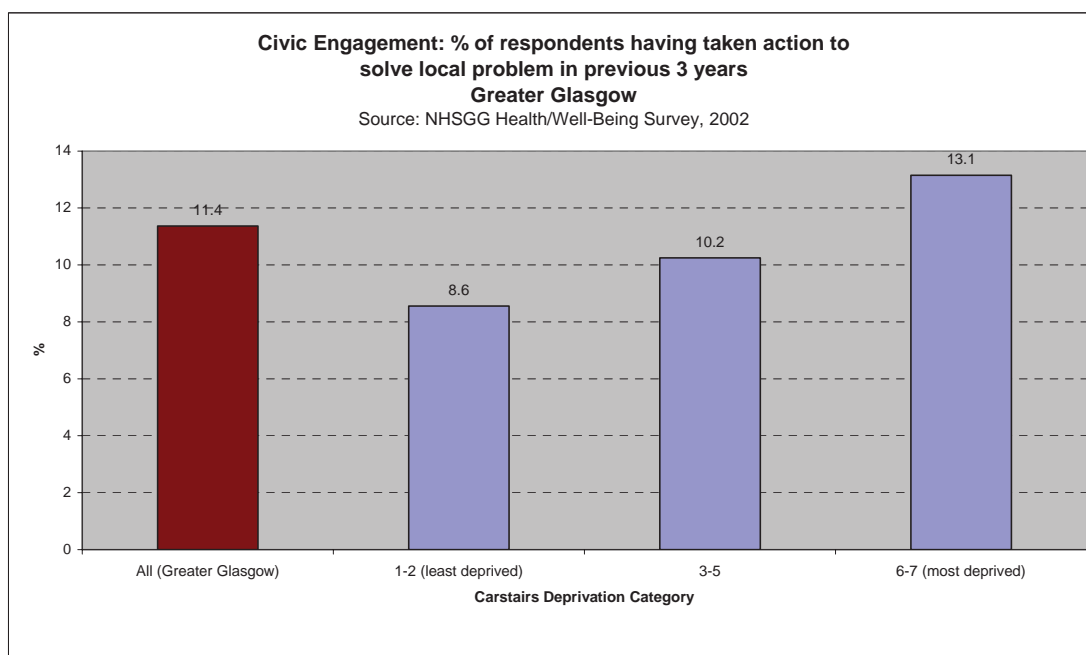


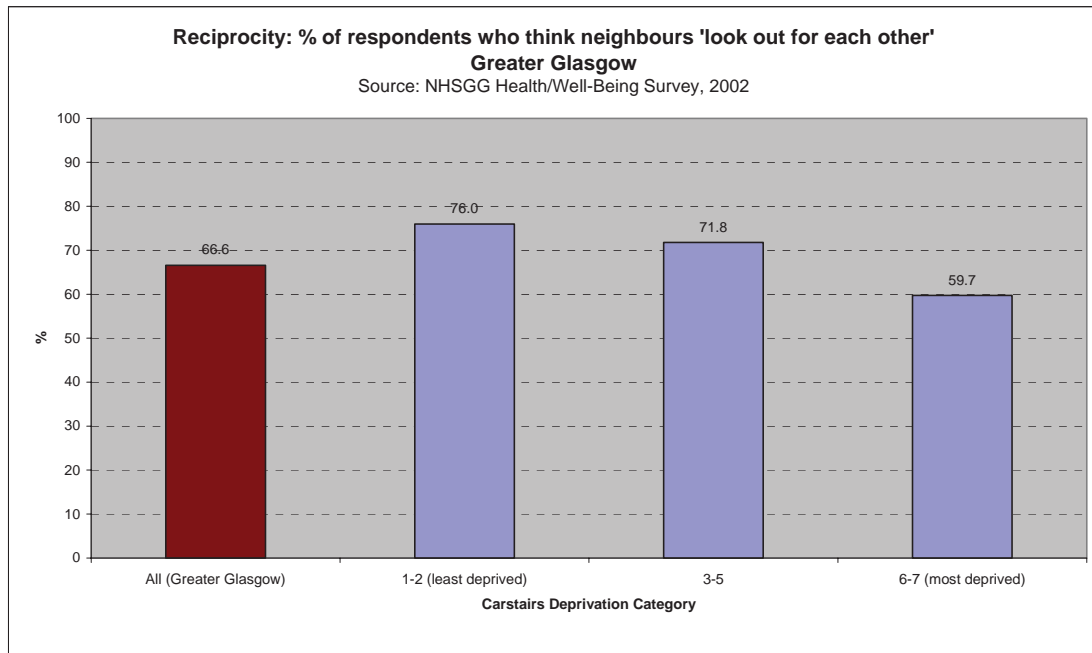
Figure 5.16



Reciprocity

Figure 5.17 presents a measure of ‘reciprocity’ – the proportion of respondents who feel that neighbours look out for each other in their local area. The figure for all Greater Glasgow is 66%, with significant differences between those living in the least deprived areas (76%) and those in most deprived (60%).

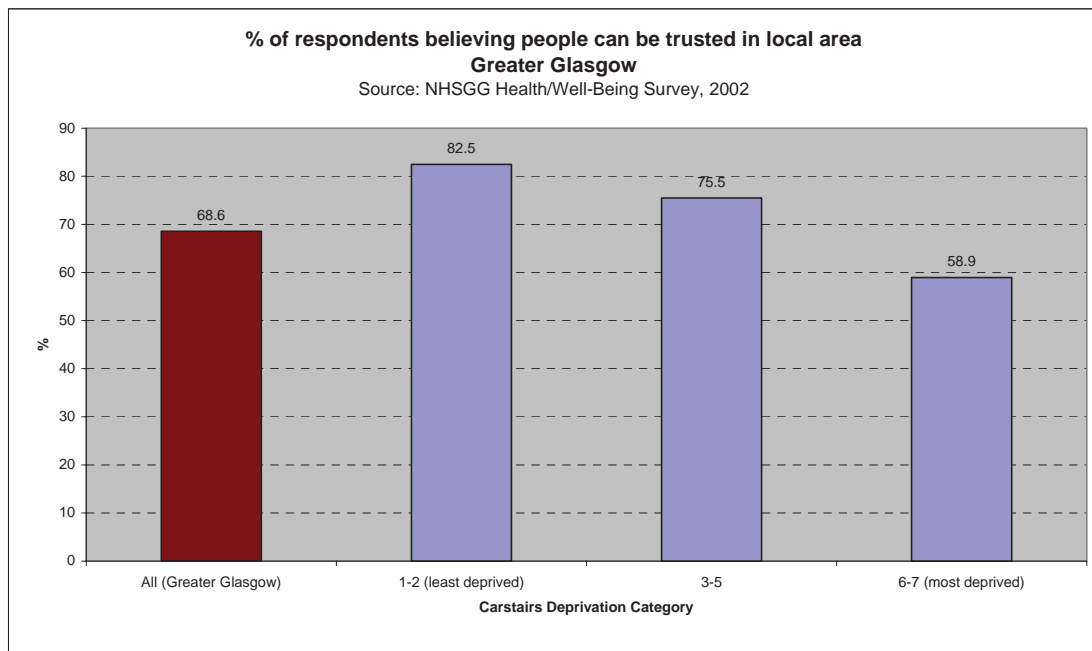
Figure 5.17



Trust

Figure 5.18 shows the proportion of respondents who believe that people can be trusted in their local area. Overall 69% of respondents believed this was the case, but the proportions were significantly higher in the less deprived areas (82%) than in the more deprived (59%).

Figure 5.18



Membership

Membership of clubs, organisations etc. is a frequently used proxy for social networking or social capital. Figure 5.19 shows the results from the 2002 NHSGG Health and Well-being Survey. One in five respondents were members of clubs or other such organisations, with significant differences between the least deprived (25%) and most deprived (16%) areas.

Figure 5.19

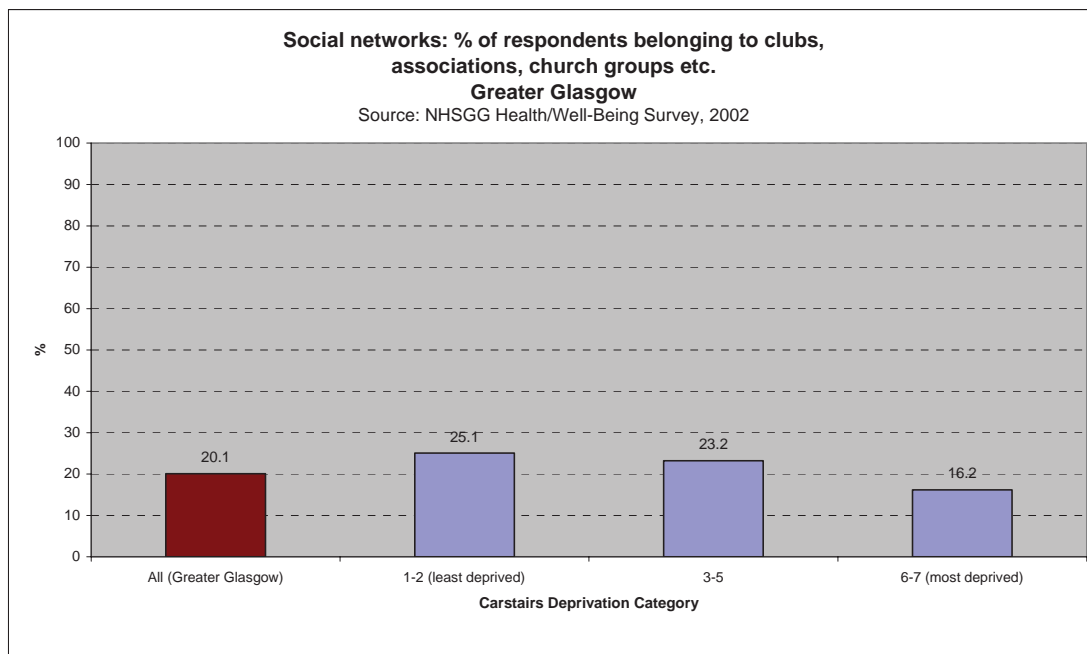
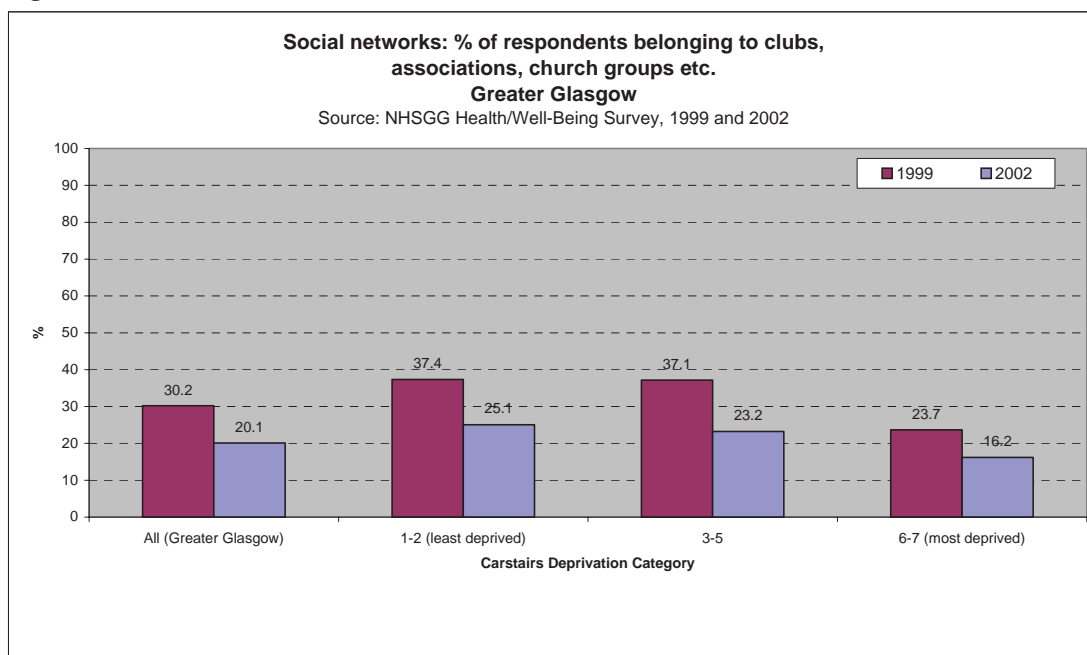


Figure 5.20 shows that between the 1999 and 2002 surveys there was a significant decrease in the numbers of respondents who were members of such clubs/organisations, with the total for all Greater Glasgow falling from 30% to 20%.

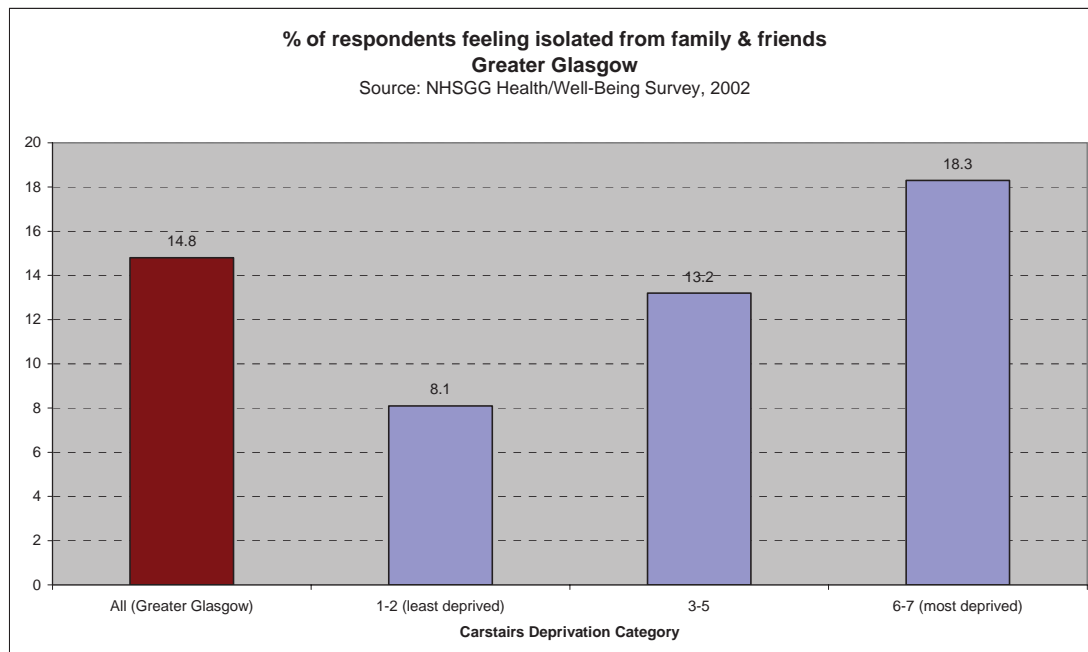
Figure 5.20



Isolation

Figure 5.21 shows the proportion of respondents who feel isolated from friends and family. Overall, 15% of respondents fall into this category, but there are again significant differences across the three deprivation groups, ranging from just 8% in the least deprived areas to 18% in the most deprived. For the whole of Greater Glasgow, the proportion of respondents feeling isolated is down slightly (but significantly) from the 1999 survey.

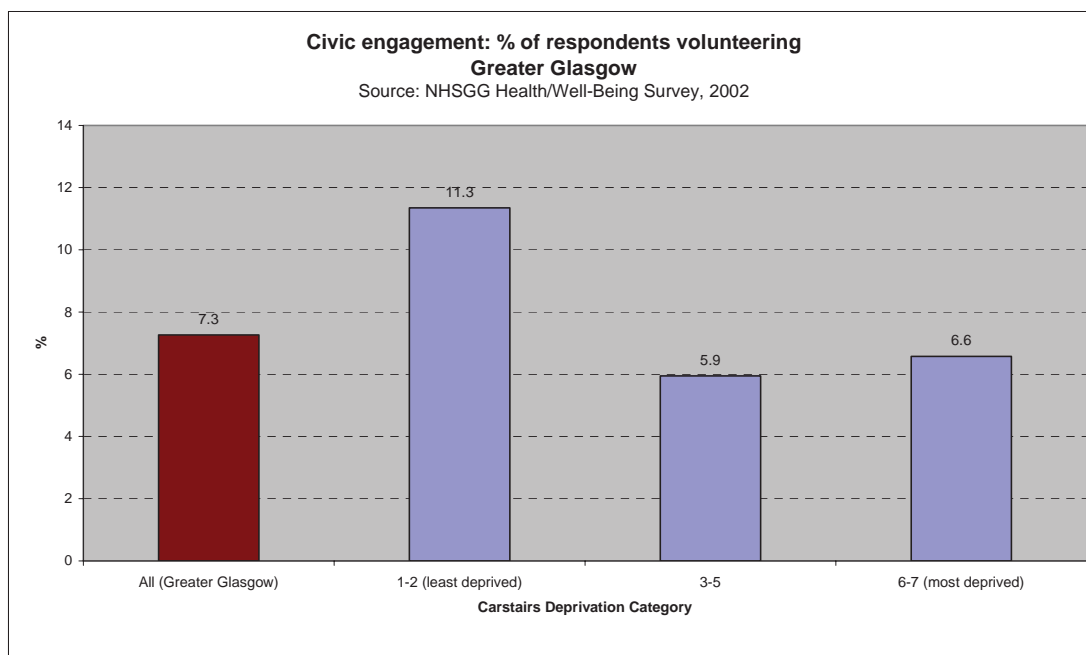
Figure 5.21



Volunteering

The proportion of Greater Glasgow respondents who said they “act as a volunteer” is shown in Figure 5.22. According to the 2002 survey, only 7% fell into this category, although the figure in the least deprived areas was significantly higher at 11%. There was little difference in the overall responses between the 1999 and 2002 surveys. However, the Scottish Household Survey asked a related, but slightly different, question around the same time (2001/02), which showed that around 21% of respondents within Glasgow City had volunteered in the previous 12 months.

Figure 5.22



Perception of the local area

Perception of the local area is relevant to – and is quoted within – Chapter 6: Physical environment. However, overall perception of a neighbourhood as a place to live (Figure 5.23) and a place to bring up children (Figure 5.24) is also relevant to the notions of social capital and social connectedness.

Figure 5.23

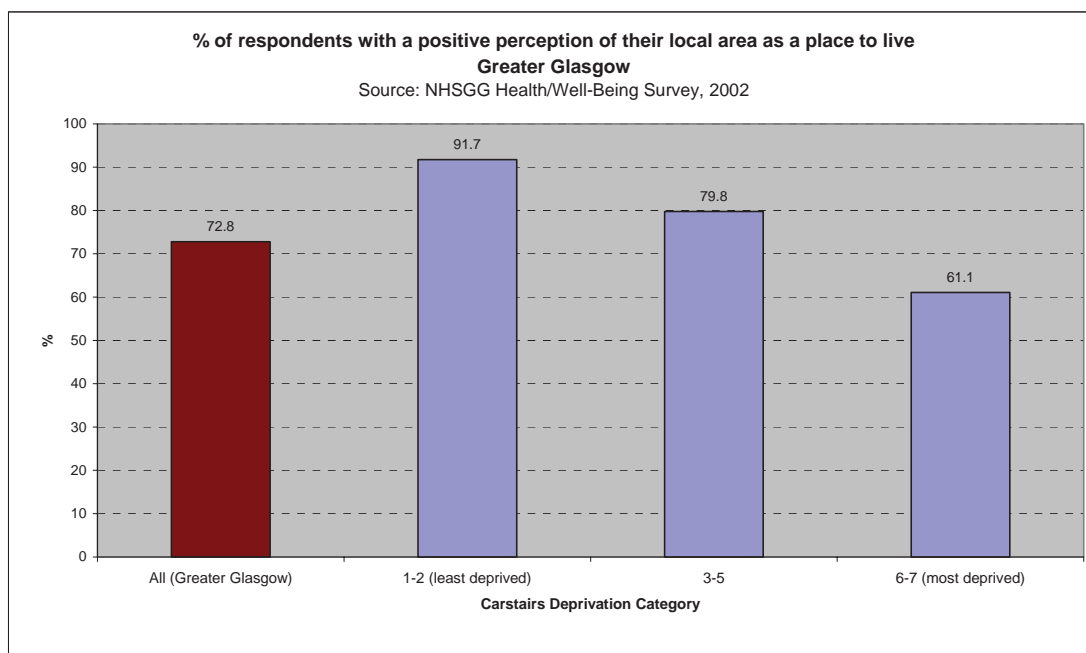
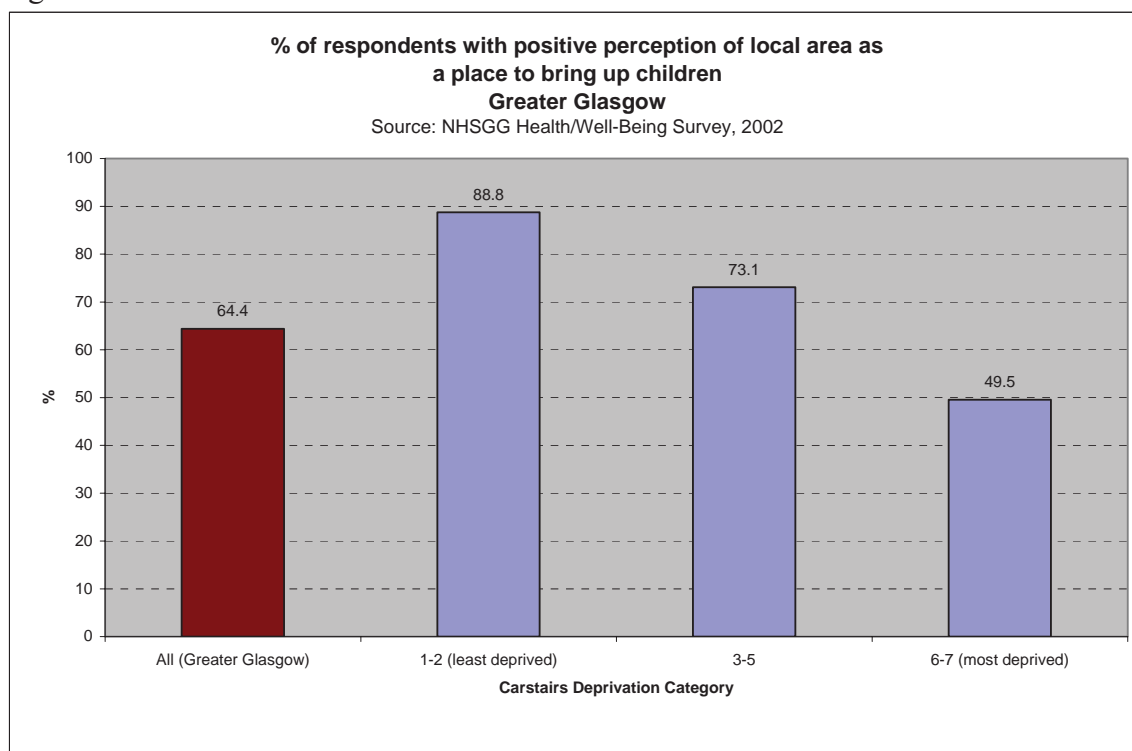


Figure 5.24



As can be seen from these charts, the majority of respondents in 2002 viewed their areas in a positive light (73%). However, the figures were markedly, and significantly, higher in the more affluent parts of Greater Glasgow, where 92% viewed their area in this way (the corresponding figure for the most deprived areas was 60%). Similarly, a large 'deprivation effect' is also visible in terms of the proportions of respondents who have a positive perception of their local area as a place to bring up children. Although 64% fell into this category overall, in the most deprived areas the figure was less than 50%, and in the least deprived it was almost 90%. There was little change in either measure between the 1999 and 2002 surveys.

Voter turnout

Voter turnout in the 2003 Scottish Parliamentary election was 49%. Figure 5.25 shows how this varied at a constituency level (from 35% in Glasgow Shettleston to 58% in Eastwood).

Figure 5.25

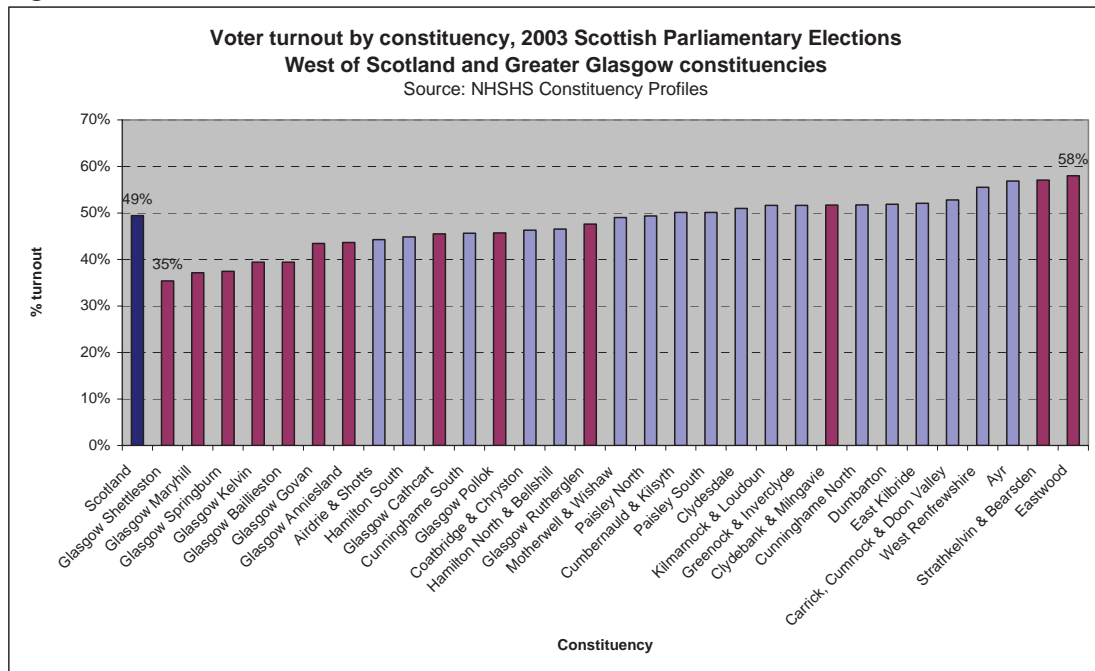


Figure 5.26 presents those figures at a council level and contrasts them with the proportion of respondents in the 2001/02 Scottish Household Survey who said they believed voting to be important. Thus we see that, for example, in Glasgow, although 74% of adults apparently believe it is important to vote, only 41% did so in the 2003 elections.

Figure 5.26

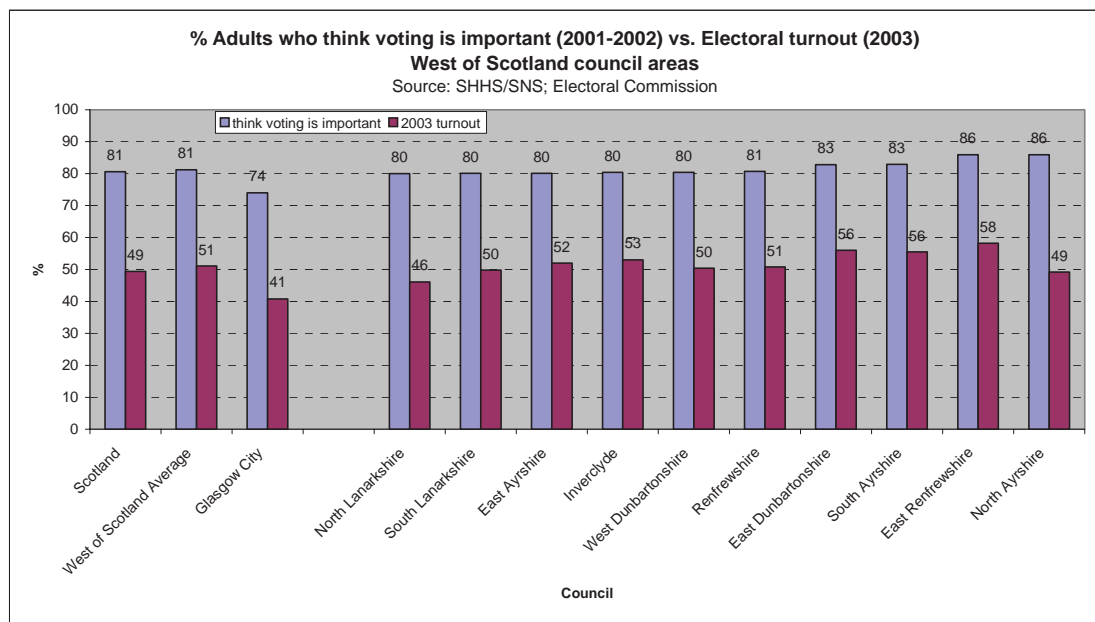
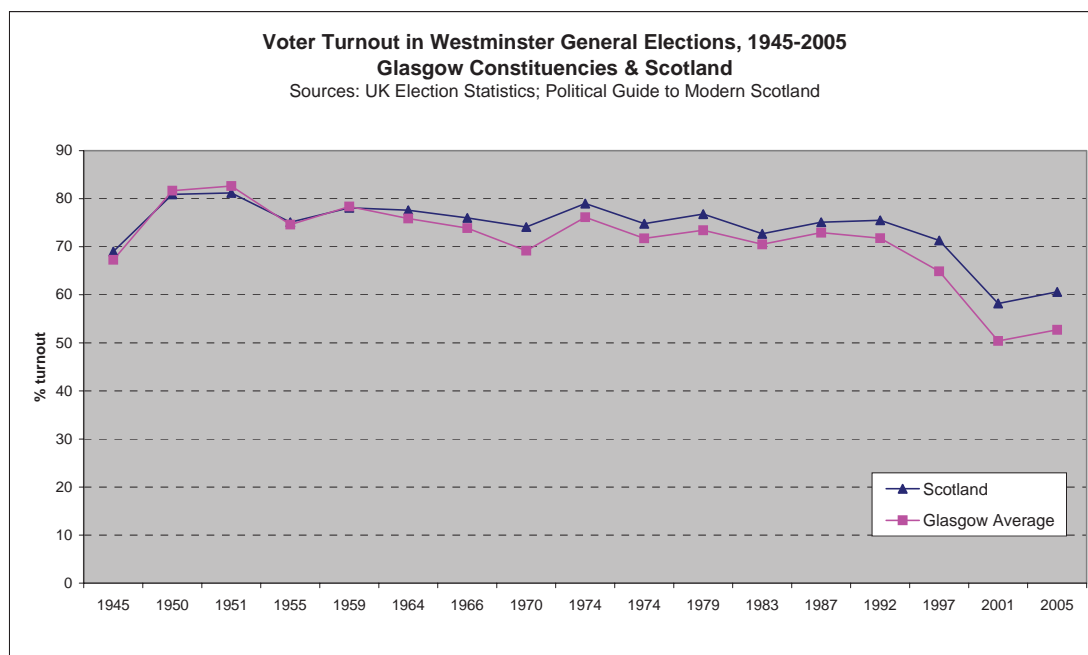


Figure 5.27 shows the trend in voter turnout at general elections from 1945 onwards for Scotland as a whole and for Glasgow constituencies^{viii}. Despite dropping from the high levels of the early 1950s, turnout remained above 70% up to, and including, the 1992 election. However, in subsequent elections turnout dropped sharply to 58% nationally in 2001 and to 50% in Glasgow. Despite a slight rise in 2005, there is broad agreement, from this evidence and that of other elections, that the general public has become less inclined to vote. Figure 5.27 also, perhaps, suggests that this has become a progressively more prominent trend in Glasgow than nationally.

Figure 5.27



5.4 Crime

At the start of this section, recorded crime levels and trends in recorded crime (for a range of crimes) at a council level are presented. Following on from this, crime patterns within Glasgow are described. There is a particular focus on violent crime within Glasgow and related figures on domestic abuse and hospital discharges after an assault are also reported. Two final sub-sections comment briefly on imprisonment rates and fear of crime.

^{viii} Due to numerous changes in constituency boundaries over the period, the trend for Glasgow should be considered as very approximate.

Recorded crime levels

In 2004/05 over 430,000 crimes were recorded^{ix} in Scotland⁴, 44% of the Scottish total occurring in the West of Scotland and 18% in Glasgow City. Glasgow City has the highest overall crime rate among councils in Scotland. Within the West of Scotland, Glasgow has the highest rates for a range of crime types including non-sexual crimes of violence, crimes of indecency, crimes of dishonesty, serious assaults, crimes involving offensive weapons and domestic housebreaking (See Tables 5.1 and 5.2).

Table 5.1

Number of crimes recorded by the police per 10,000 population and crime index, West of Scotland council areas, 2004/05							
Source: Scottish Executive							
Rate and Index							
Council area	Non - sexual crimes of violence	Crimes of indecency	Crimes of dishonesty	Fire - raising, vandalism, etc.	Other crimes	Total crimes	Index (Scotland =100)
Scotland	29	14	414	253	152	863	100
Glasgow City	78	34	589	334	315	1,350	157
East Dunbartonshire	16	3	209	190	82	500	58
East Renfrewshire	17	3	217	206	66	509	59
South Lanarkshire	27	7	265	235	146	680	79
South Ayrshire	24	10	311	234	114	692	80
East Ayrshire	31	11	341	256	130	770	89
North Lanarkshire	27	11	315	260	168	782	91
North Ayrshire	28	12	339	288	156	823	95
Renfrewshire	35	10	476	246	126	892	103
Inverclyde	39	7	411	285	231	974	113
West Dunbartonshire	48	11	413	356	203	1,032	120

Table 5.2

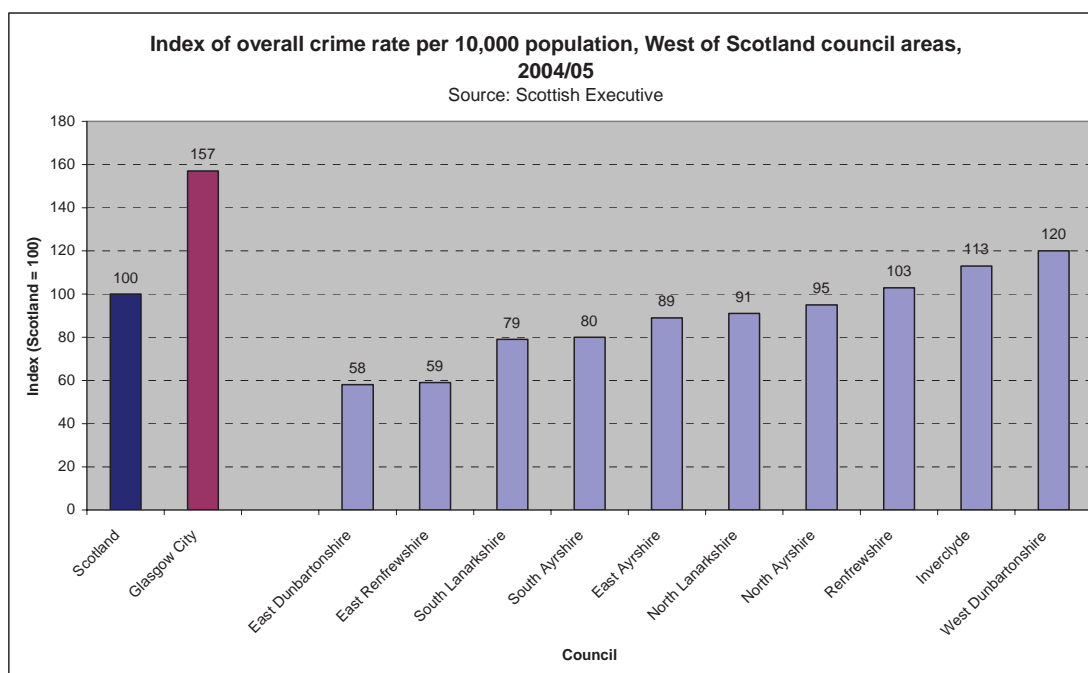
Number of crimes recorded by the police and rate per 10,000 population for selected crimes, West of Scotland council area, 2004/05									
Source: Scottish Executive									
Council area	Number					Rate per 10,000 population			
	Serious assault	Offensive weapons	Domestic housebreaking	Vandalism ¹	All crimes	Serious assault	Offensive weapons	Domestic housebreaking	Vandalism ¹
Scotland	6,775	9,545	23,613	119,855	438,093	13	19	46	236
Glasgow City	2,187	3,184	4,004	17,265	78,014	38	55	69	299
East Dunbartonshire	101	118	315	1,842	5,325	9	11	30	173
East Renfrewshire	70	123	374	1,749	4,561	8	14	42	195
South Lanarkshire	442	641	1,065	6,765	20,775	14	21	35	222
South Ayrshire	157	107	327	2,487	7,741	14	10	29	222
East Ayrshire	240	218	584	2,806	9,214	20	18	49	234
North Lanarkshire	441	632	1,223	7,686	25,227	14	20	38	238
North Ayrshire	215	297	653	3,652	11,200	16	22	48	268
Renfrewshire	298	380	1,026	3,855	15,223	17	22	60	226
Inverclyde	194	308	495	2,095	8,027	24	37	60	254
West Dunbartonshire	219	290	482	2,955	9,491	24	32	52	321

1. Includes vandalism, malicious damage and malicious mischief only.

In contrast, East Dunbartonshire and East Renfrewshire have overall crime rates that are approximately one third of the Glasgow rate (Figure 5.28).

^{ix} It should be noted that the reported crime level for many crime types is a considerable underestimate of the true crime level, as many crimes are not reported to the police.

Figure 5.28

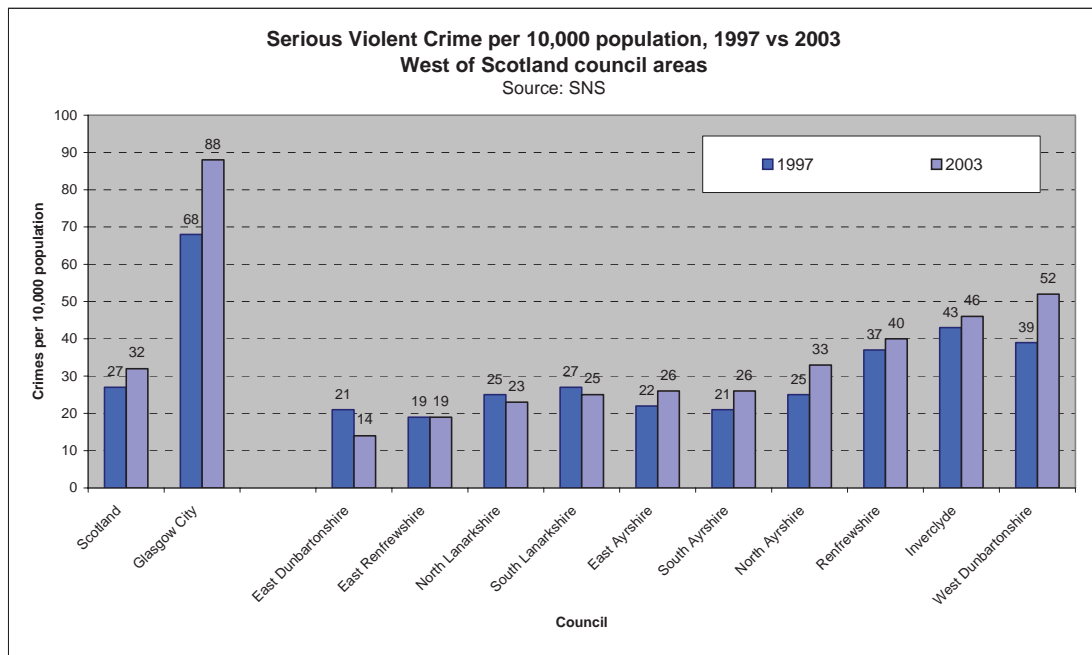


Recorded crime trends

Using slightly older data (for the period 1997-2003^x) a comparison of crime trends within the West of Scotland council areas can be made. The rate of ‘serious violent crime’, which includes murder, serious assault, robbery, rape and attempted rape, rose by 19% between 1997 and 2003 across Scotland, and rose even more sharply in North Ayrshire, West Dunbartonshire and Glasgow (Figure 5.29). Glasgow has the highest prevalence rate for this type of crime, followed by West Dunbartonshire. In contrast, in East Dunbartonshire a 33% reduction in this type of crime was recorded over the same period.

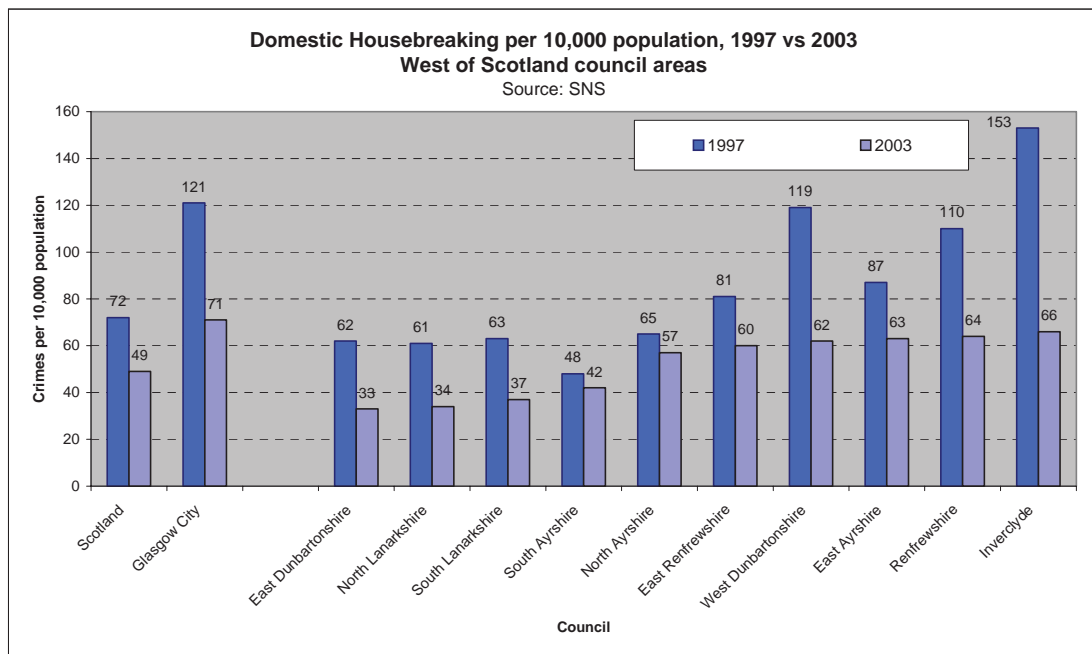
^x Trends by council for more recent years than 2003 have not been published.

Figure 5.29



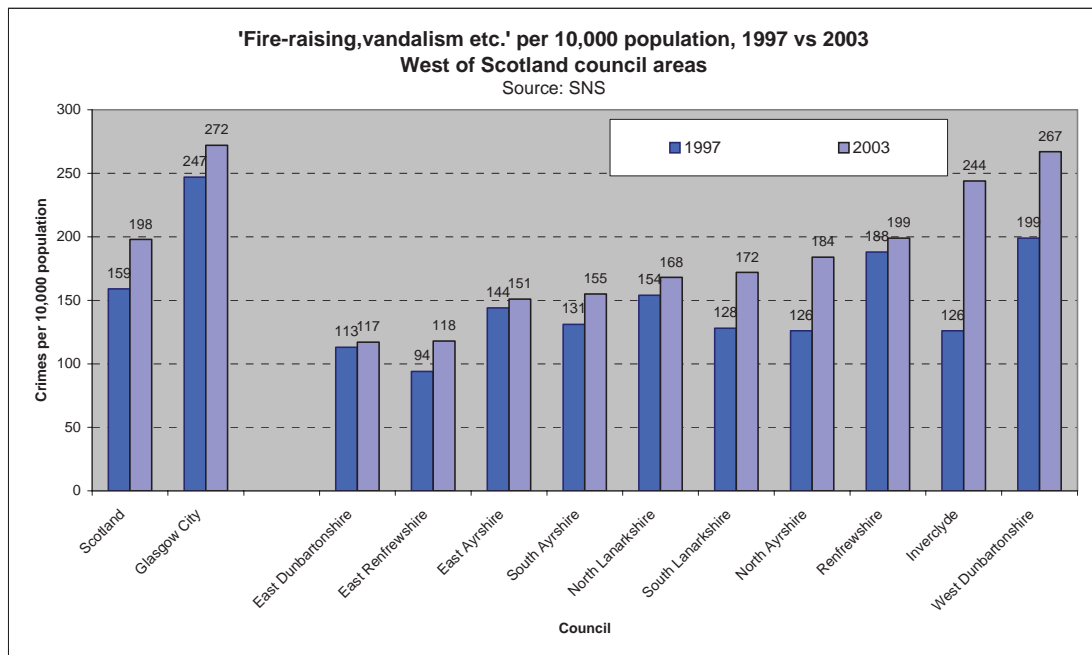
Rates of domestic housebreaking reduced by 32%, nationally, over the same period and by 25-50% in most of the West of Scotland councils (Figure 5.30).

Figure 5.30



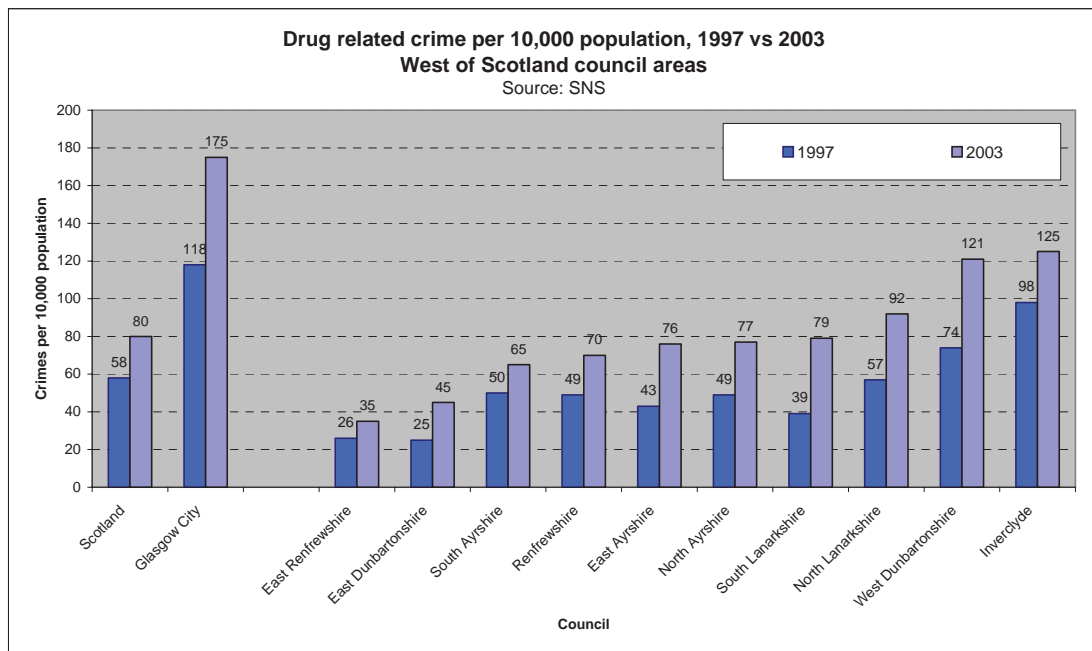
'Fire-raising, vandalism etc.' rates rose by 25% in Scotland. In parts of the West of Scotland, such as Inverclyde, there were even steeper rises (Figure 5.31). This increase partly reflects improved recording of minor incidents of such crimes by Scottish police forces.

Figure 5.31



Perhaps, the most concerning trends are those for drug related crimes, which rose by 38% nationally over the six years up to 2003. Many of the individual West of Scotland councils had even greater rises (Figure 5.32). Glasgow stands out as having a rate that is more than double the national average.

Figure 5.32



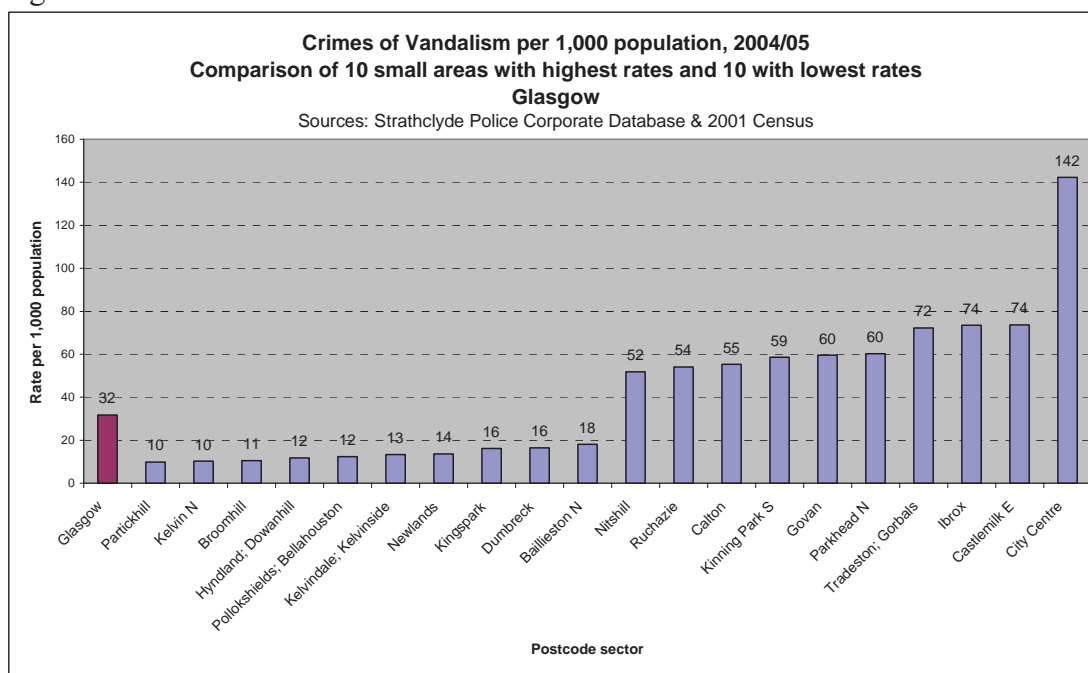
Crime patterns within Glasgow

The data used in this analysis were provided from the Strathclyde Police Corporate Database for the fiscal year 2004/05 and only cover the Glasgow City area. The crime types included within this analysis were disorder, vandalism, vehicle crime and housebreaking. All the crimes were assigned to the postcode sector in which the crime occurred and analysed as rates per 1,000 resident population at a postcode sector level across Glasgow City.

Crimes of vandalism

The city centre has the highest rate of crimes of vandalism. However if the city centre is excluded, a wide variation in the levels of vandalism per head of population can still be observed across the city, varying from 10-18 per 1,000 in the lowest rate areas to 52-74 in the highest rate areas (Figure 5.33). An association with deprivation is clear. The areas with the highest rates of vandalism are notably amongst the most deprived in the city, while the opposite is true of those areas with the lowest rates of vandalism.

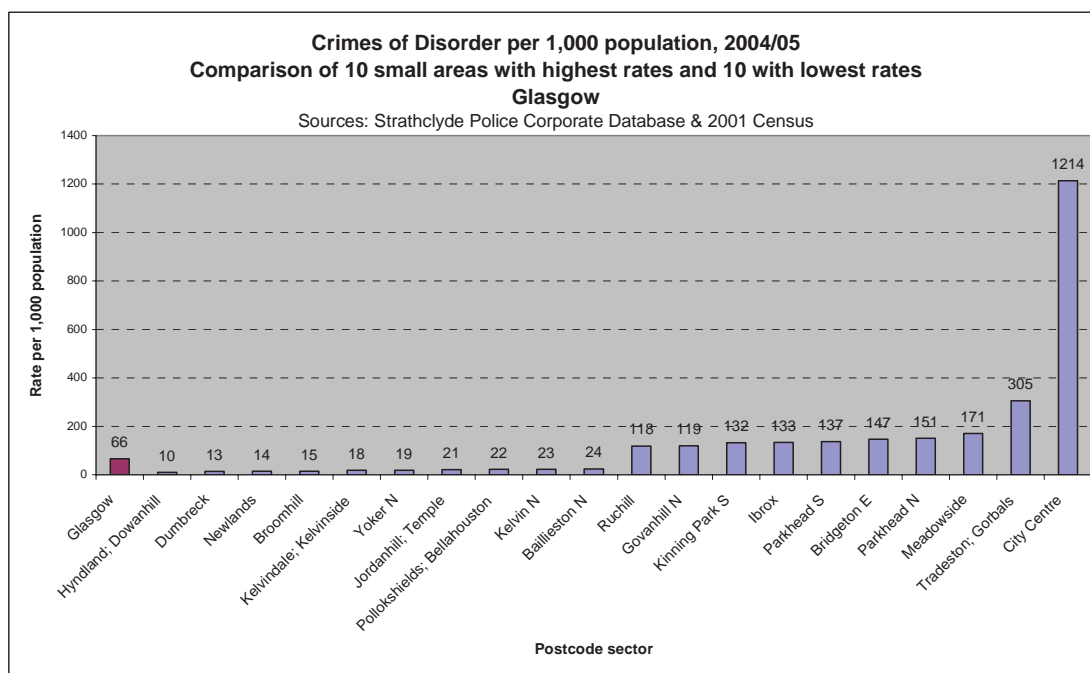
Figure 5.33



Crimes of disorder

The prevalence of crimes of disorder varies greatly across the city. In 2004/05 in the ten postcode sectors with the highest rates, the rate varied from over 100 disorder crimes per 1,000 residents to over 1200 (Figure 5.34). The latter was in the city centre, and clearly reflects the large numbers of people socialising there in the evenings and at the weekend. The ten areas with the lowest rates of this crime tend to be in more affluent parts of Glasgow.

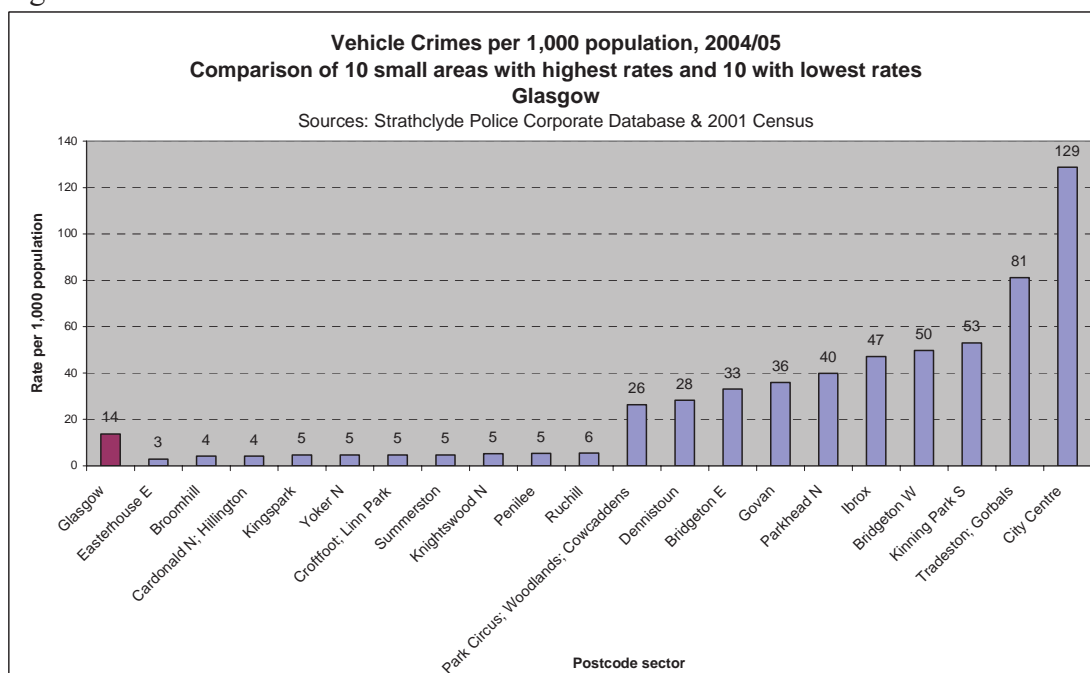
Figure 5.34



Vehicle crime

While the level of vehicle crime varied widely across the city in 2004/05, and was particularly high in the city centre, it is difficult to observe a pattern related to deprivation (Figure 5.35). The areas with the lowest rates of vehicle crime are a mixture of deprived and more affluent areas, although the areas with the highest rates of vehicle crime are (with the exception of the city centre) noticeably more deprived than average.

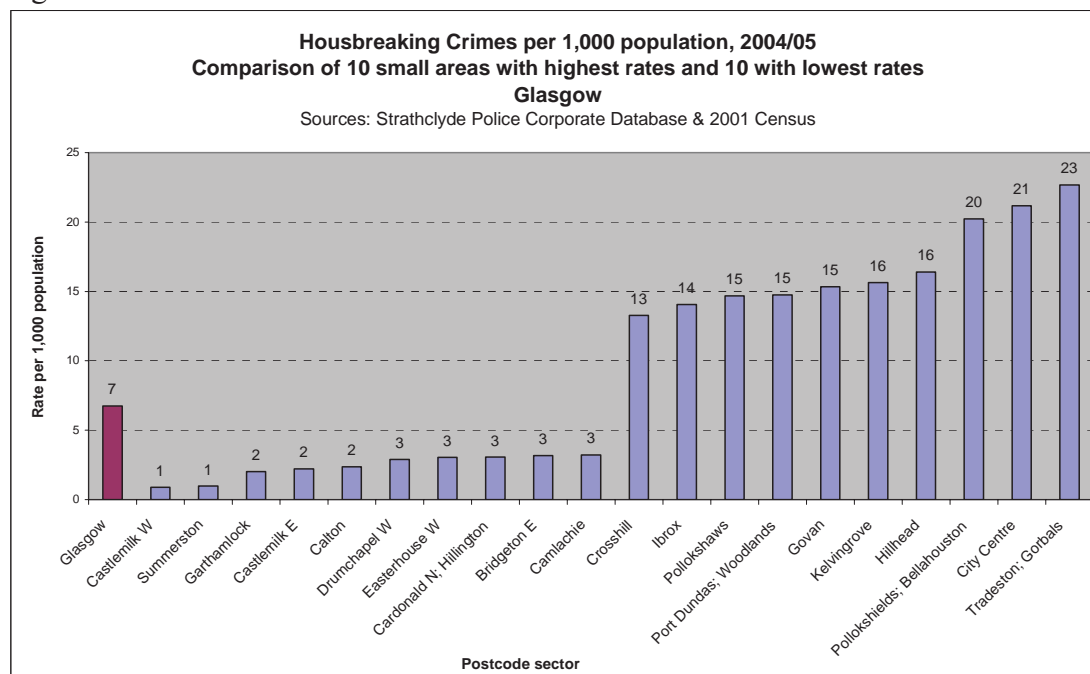
Figure 5.35



Housebreaking

The areas that had the highest rates of housebreaking in 2004/05 were quite mixed socio-economically and, perhaps surprisingly, the areas with the lowest rates of housebreaking tended to be among the most deprived (Figure 5.36).

Figure 5.36



Violent crime patterns within Glasgow

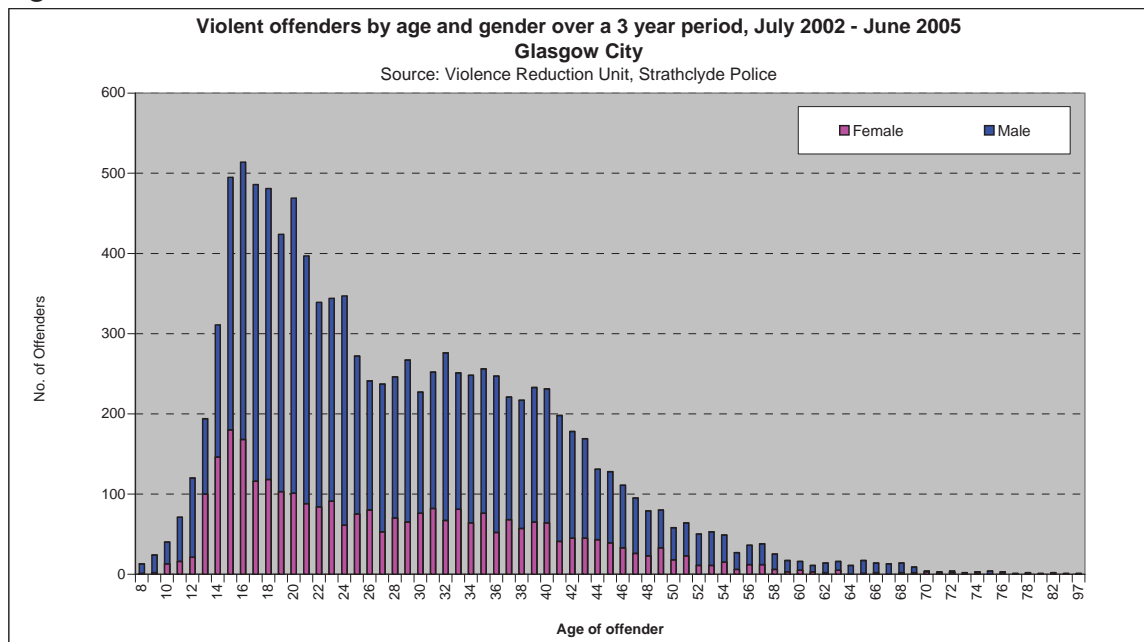
Data were supplied by Strathclyde Police’s Violence Reduction Unit on the location (by data zone^{xi}) of incidents of violent crime and the (data zone of) residence of victims and perpetrators of violent crime covering a three-year period from July 2002 – June 2005 for Glasgow City. Offences that are classified as ‘violent offences’ include: murder, attempted murder, serious assault, simple assault and possession of an offensive weapon.

Police intelligence records suggest that there were approximately 13,725 *offenders* living in Glasgow City, who offended on at least one occasion in the three-year period, July 2002-June 2005. There were substantially more male than female offenders (10,743 vs. 2,982), a ratio of 3.6 males to one female. The age profile of violent offenders is strongly skewed towards a peak offending age of 15/16 years (Figure 5.37)^{xii}. From this peak the numbers of male and female offenders drop gradually with increasing age, although numbers of offenders remain high, particularly for men, between late teenage years and mid twenties.

^{xi} Populations c600/700.

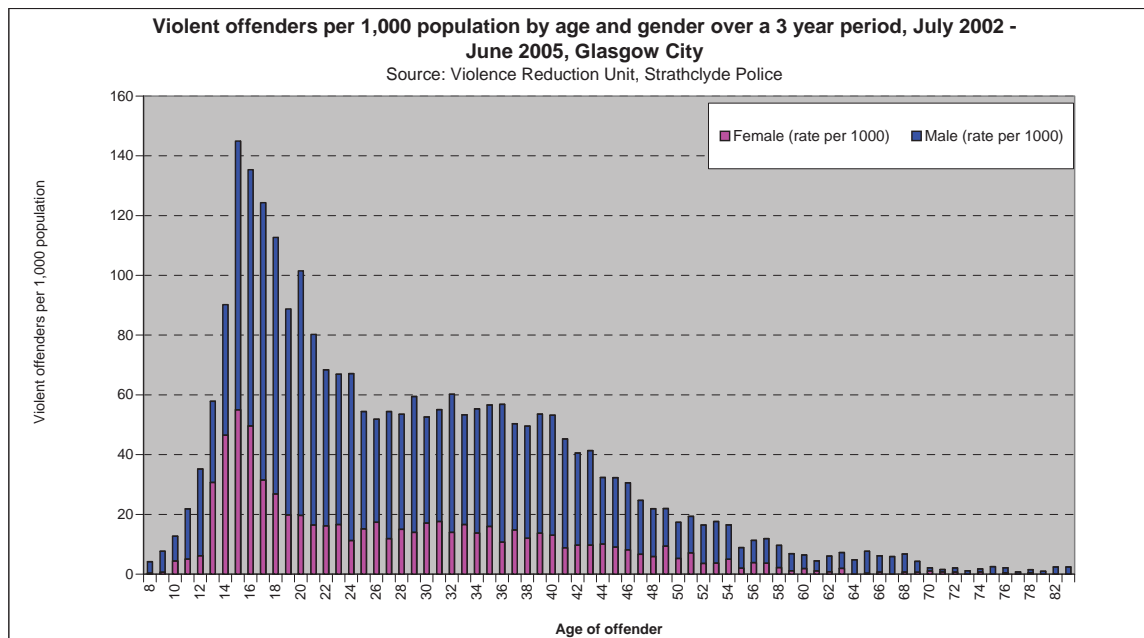
^{xii} Please note that the column values for males and females in Figure 5.37 (and in subsequent similar graphs – Figure 5.38, 5.40 and 5.41) are independent, not cumulative e.g. in Figure 5.37, the number of 16 year old male offenders is 514 and the number of 16 year old female offenders is 168.

Figure 5.37



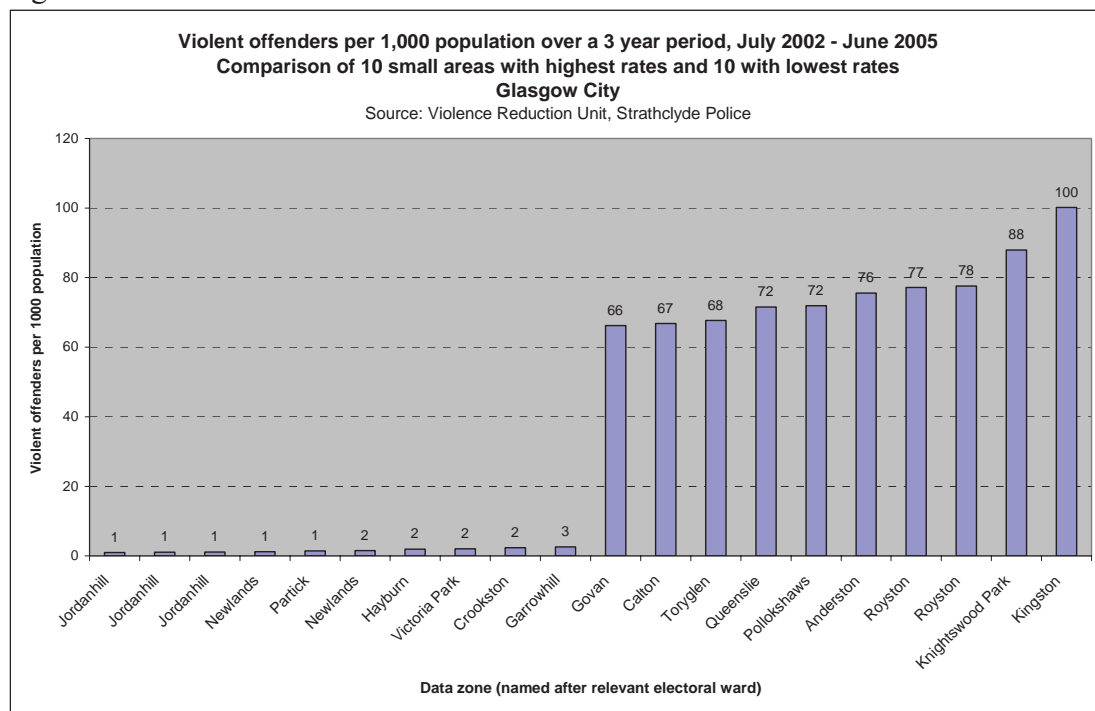
Rates of violent offenders by age and gender show similar patterns (Figure 5.38). It is worth noting that rates of violent offenders among young males of 15 or 16 years were double that of those aged 22 years. The equivalent rates for females, while much lower, show an even sharper decline by age; the offending rate among 14 to 16 year old females was three times that for 22 year old women.

Figure 5.38



A comparison of the geographic concentration of violent offenders within the population – at a data zone level – shows a huge variation across the city (Figure 5.39). In the ten areas with the highest rates of residents who have committed a violent offence, there are 60-100 offenders for every thousand residents while, in the 10 areas with the lowest rates of offenders, there are only 1-3 offenders per 1,000 residents^{xiii}. The areas with low rates of offenders are generally more affluent but not exclusively, while the areas with the highest rates of offenders are among the most deprived in Glasgow. This is confirmed by a strong statistical correlation^{xiv} at a data zone level between deprivation (as measured by SIMD) and rates of offenders.

Figure 5.39

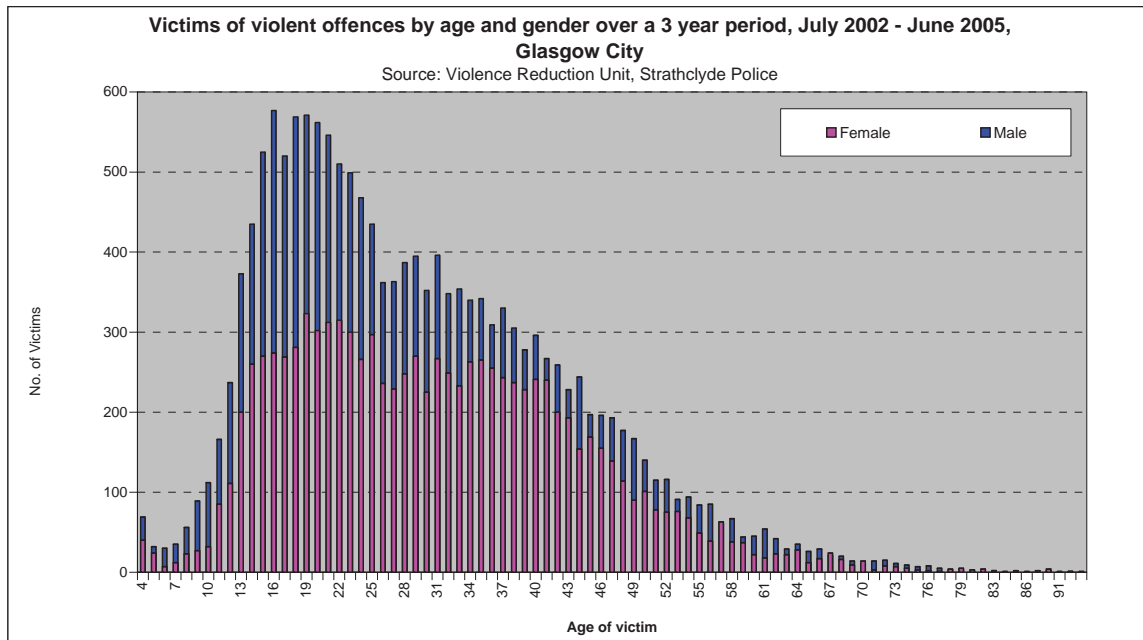


The distribution of *victims* of violent offences by age and gender is similar to that for violent offenders (Figure 5.40). Victims are more likely to be male than female and numbers of victims are highest in the age range 15-25.

^{xiii} It should be noted that ward names repeat on the graph where more than one data zone from the same ward is present.

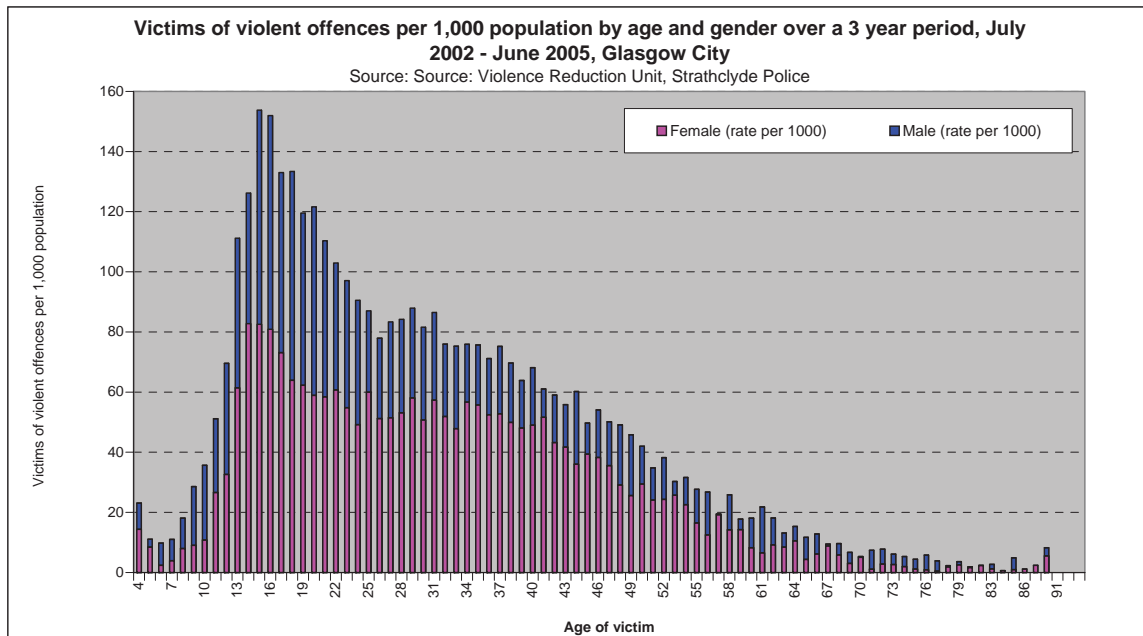
^{xiv} $R^2 = .77$, where 0 would represent no correlation and 1 a perfect correlation.

Figure 5.40



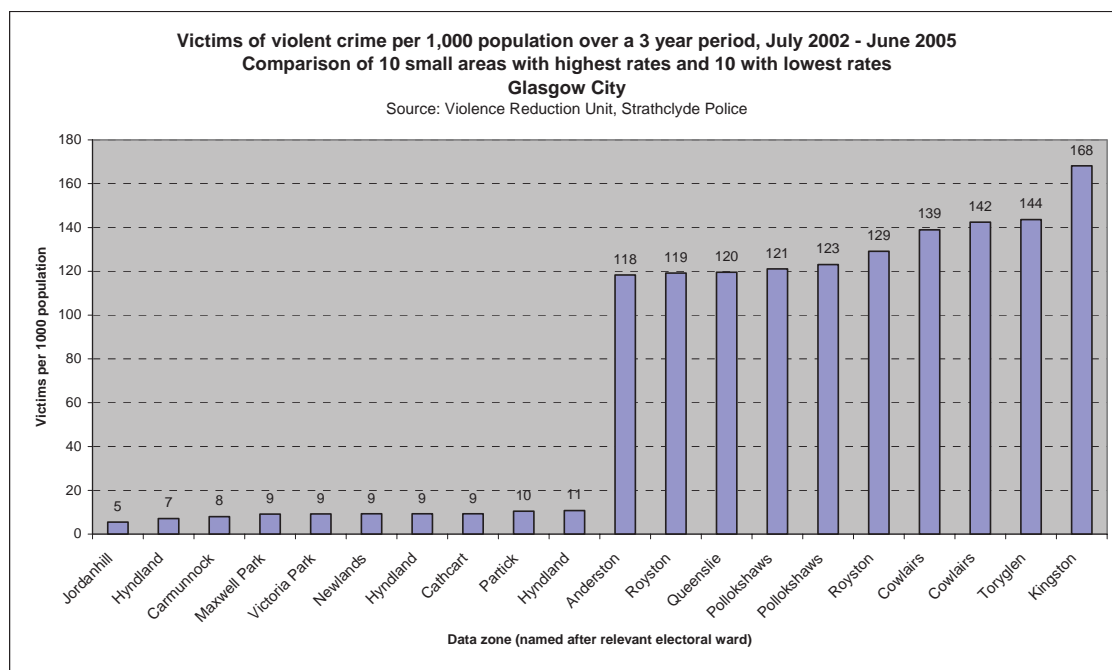
The chart of victim rates (Figure 5.41) by age shows that the peak age for a male or female being a victim of a violent offence is fifteen. From this age the rate drops steadily until the mid-twenties where it remains stable before dropping again around forty.

Figure 5.41



A comparison of the geographic concentration of victims of violence in Glasgow (Figure 5.42) shows that in some data zones over one in ten people have been the victim of a violent crime in the last three years, while at the other extreme in the ten areas with the lowest rates of victims between five and 11 people per 1,000 population have been victims of violent crime. There is a strong correlation^{xv} between areas with high concentrations of victims of violent crime and deprivation (as measured by SIMD at a data zone level).

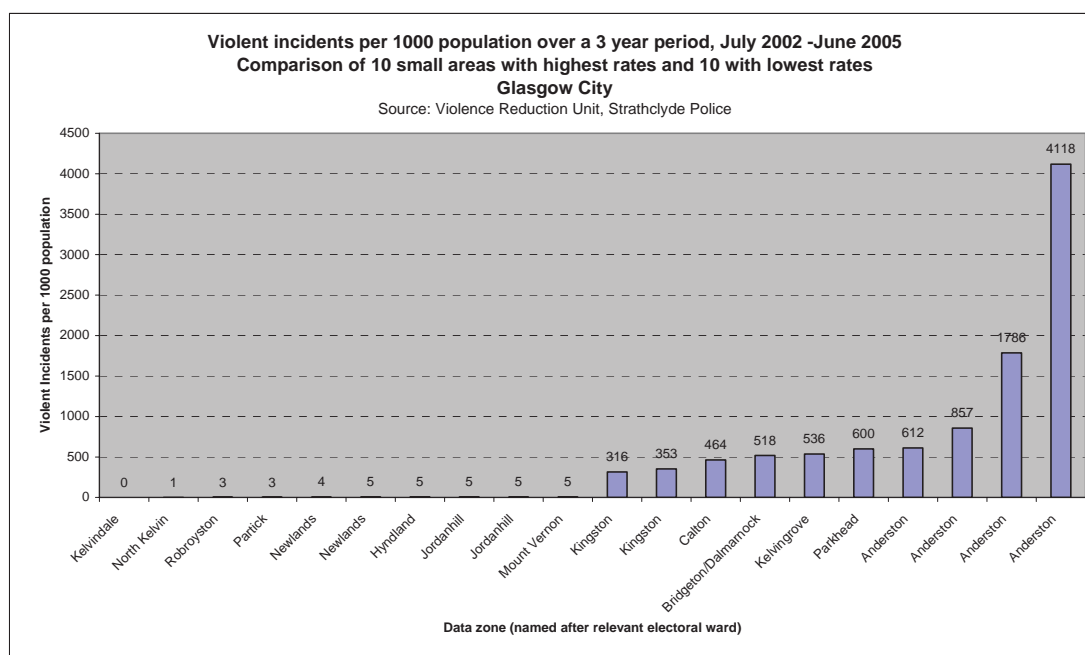
Figure 5.42



Rates of violent *incidents* per 1,000 residents for data zones were also analysed. The graph below (Figure 5.43) clearly shows that these offences tend to concentrate in particular parts of the city centre, such as Anderston and Kingston.

^{xv} $R^2 = .71$, where 0 would represent no correlation and 1 a perfect correlation.

Figure 5.43



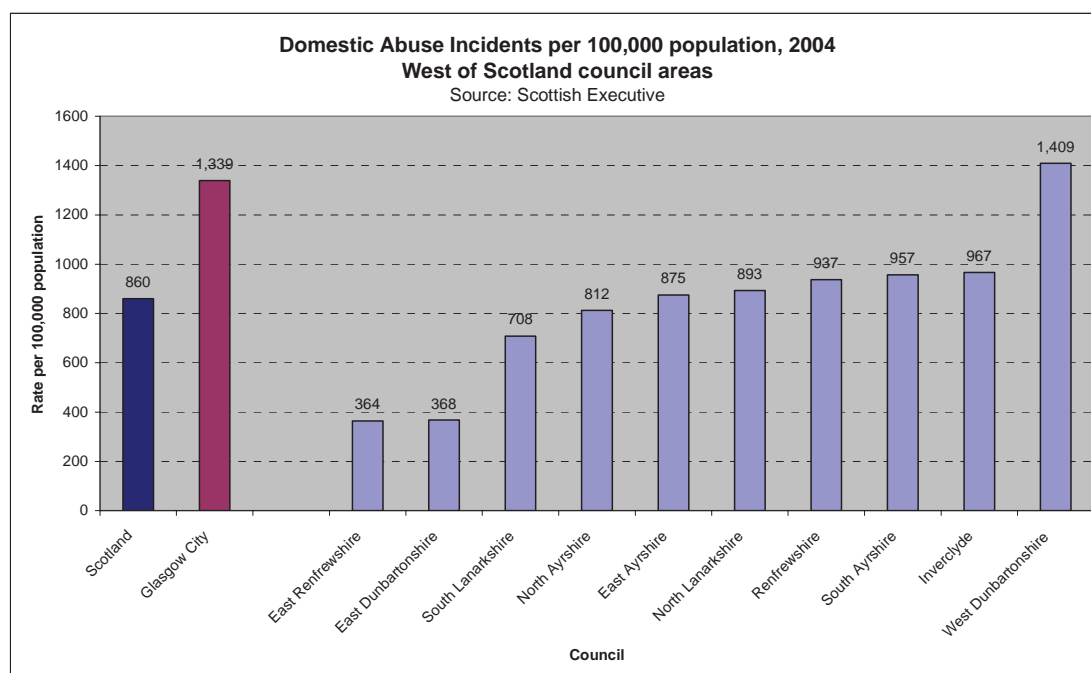
Domestic abuse

Statistical reporting of incidents of domestic abuse by the police only started relatively recently, in 1999. Since recording started a number of patterns have become established (statistics quoted are based on 2004 national figures)⁵:

- The majority of incidents involve a female victim and male perpetrator (88%).
- Where information was available on whether or not the victim had previously been reported as being a domestic abuse victim, 52% of the cases involved known repeat victimisation.
- Nearly 45% of incidents of domestic abuse recorded by the police involved co-habitees or spouses and in 32% of cases, the victim and perpetrator were ex-partners or ex-spouses.
- The overwhelming majority of incidents of domestic abuse took place in the home (91% of all incidents where the location was recorded).

The latest domestic abuse statistics show that across the West of Scotland (see Figure 5.44) rates of recorded incidents of domestic abuse vary hugely from 1,409 per 100,000 in West Dunbartonshire (64% above the Scottish average) to 364 per 100,000 in East Renfrewshire (58% below the Scottish average). The rate for Glasgow is the second highest in the West of Scotland and is 56% above the Scottish average.

Figure 5.44



Hospital discharges after an assault^{xvi}

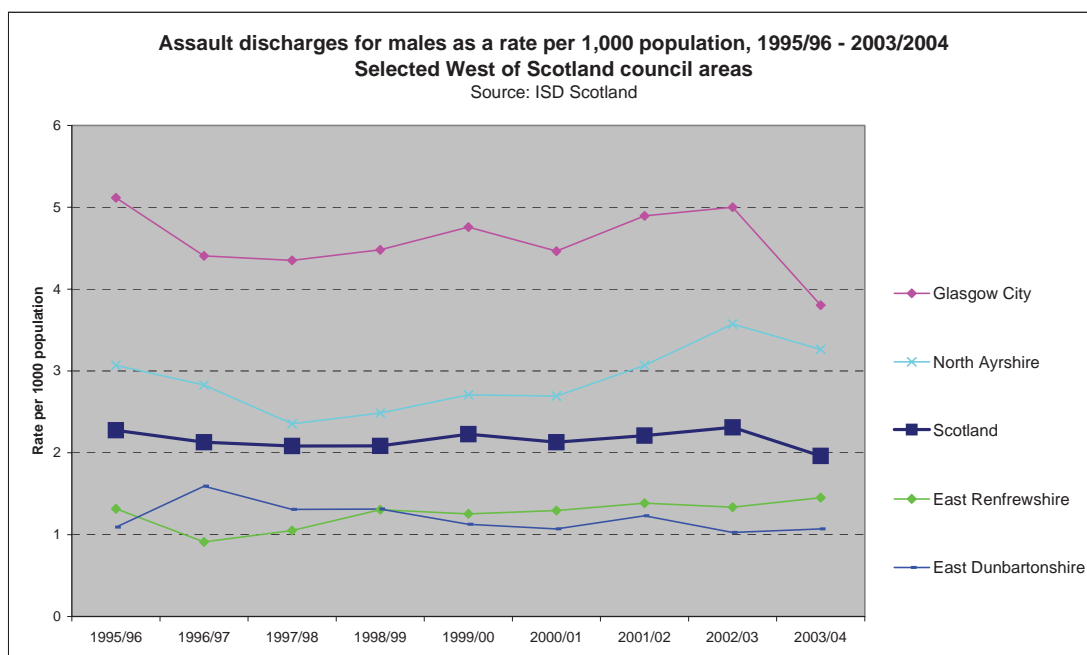
There are approximately 6,000 hospital discharges after assault^{xvii} in Scotland, annually. Greater Glasgow, contributes disproportionately to this figure, accounting for a quarter to a third of all such admissions within Scotland, while at a council level, Glasgow City had the highest rates for males (see Figure 5.45) and females until 2003/04, when there was a large reduction; although, this drop is likely to be artefactual, rather than a real reduction^{xviii}.

^{xvi} Appendix 1 provides details of the diagnoses used to define assaults.

^{xvii} It is worth noting that these figures are based on discharges after inpatient or day case treatment in hospital and do not include patients treated in accident and emergency departments who are not then admitted. Thus, the figures clearly underestimate incidences of assault, although they are likely to be less of an underestimate of assaults resulting in serious injury.

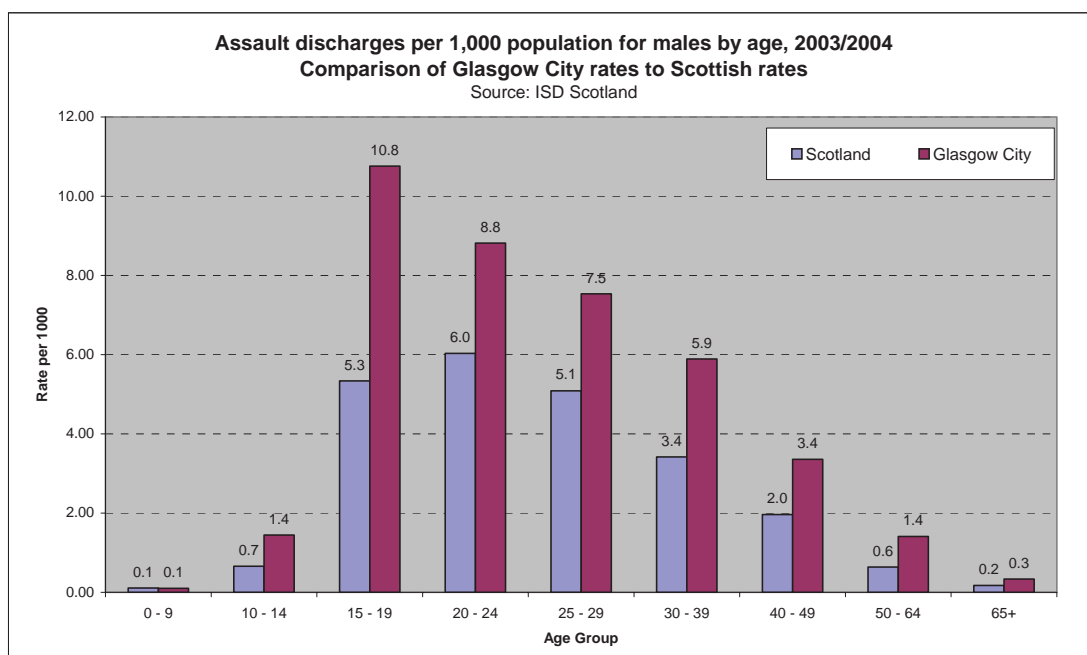
^{xviii} Changes in the organisation of the A&E receiving wards at Glasgow Royal have had a knock-on effect on actual patient admissions and this may account for part of the drop in Glasgow City.

Figure 5.45



Age and gender breakdowns of assault discharges highlight that males are far more likely to be involved and that the rates are highest among young males with the peak rates in the age ranges from 15-29. A comparison of assault discharges for males between Glasgow City and Scotland (see Figure 5.46) shows that the rate in Glasgow is consistently higher in each age band. For 15-19 year olds the rate was double the Scottish rate in 2003/04 and was the highest among the West of Scotland councils.

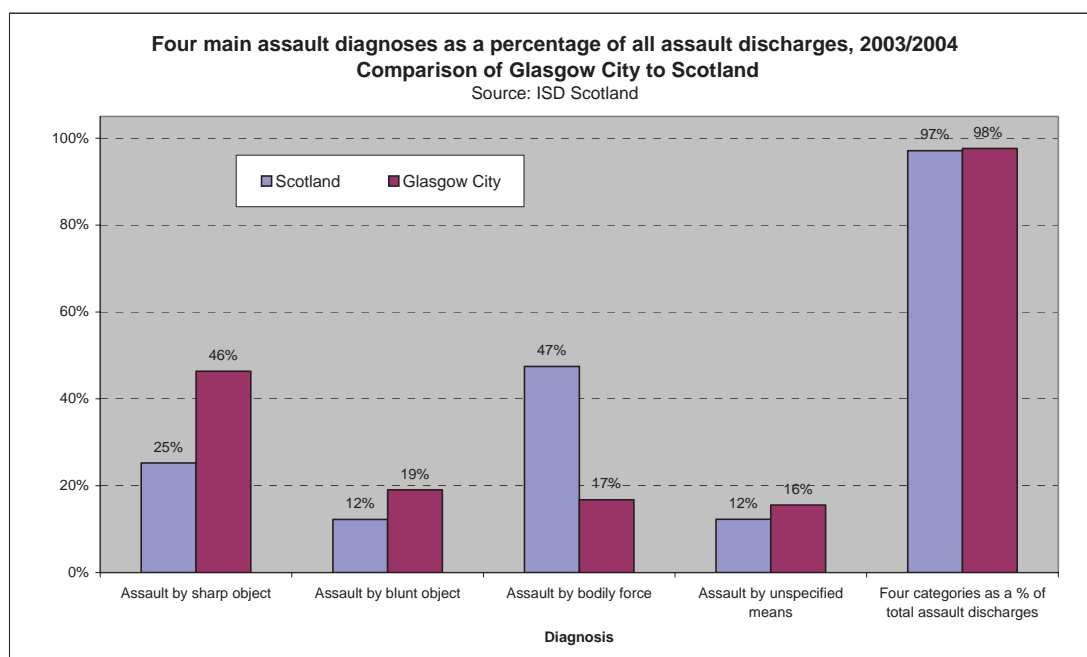
Figure 5.46



Among 20-24 year old males, the rates of discharge after assault were highest in Inverclyde and North Ayrshire (11.8 and 13.8 per 1,000 population, respectively), while, for 25-29 year old males, Inverclyde had the highest rates (16 per 1,000 population).

The diagnostic codes used to define assault include 25 separate diagnoses, but four account for the majority of assaults. Across Scotland, ‘assault by bodily force’ is the most commonly coded diagnosis accounting for nearly one in two cases, but in Glasgow City (Figure 5.47) the pattern is different with ‘assault by (a) sharp object’ the most common cause shown (46% of all assaults).

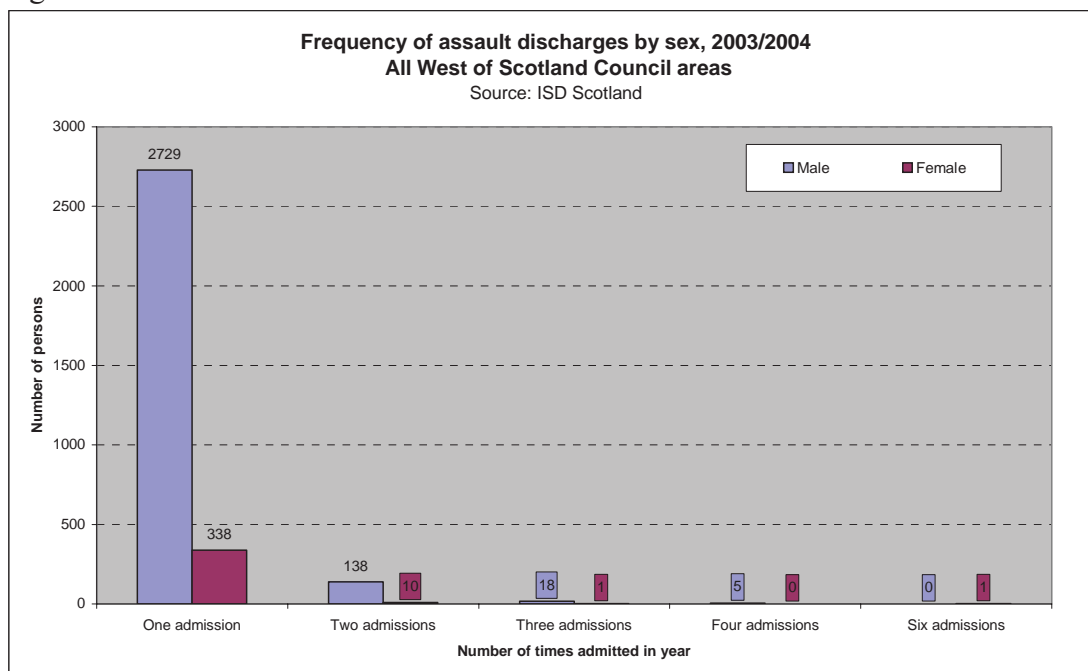
Figure 5.47



Repeat admissions with an assault diagnosis are relatively unusual. Just over 5% of individuals were discharged more than once after an assault in 2003/04. While multiple admissions after an assault are rare, these are clearly cases to cause concern. Figure 5.48 highlights the numbers of persons admitted in the West of Scotland in 2003/04. It is notable five men had four assault admissions, while one woman had six such admissions in the year^{xix}.

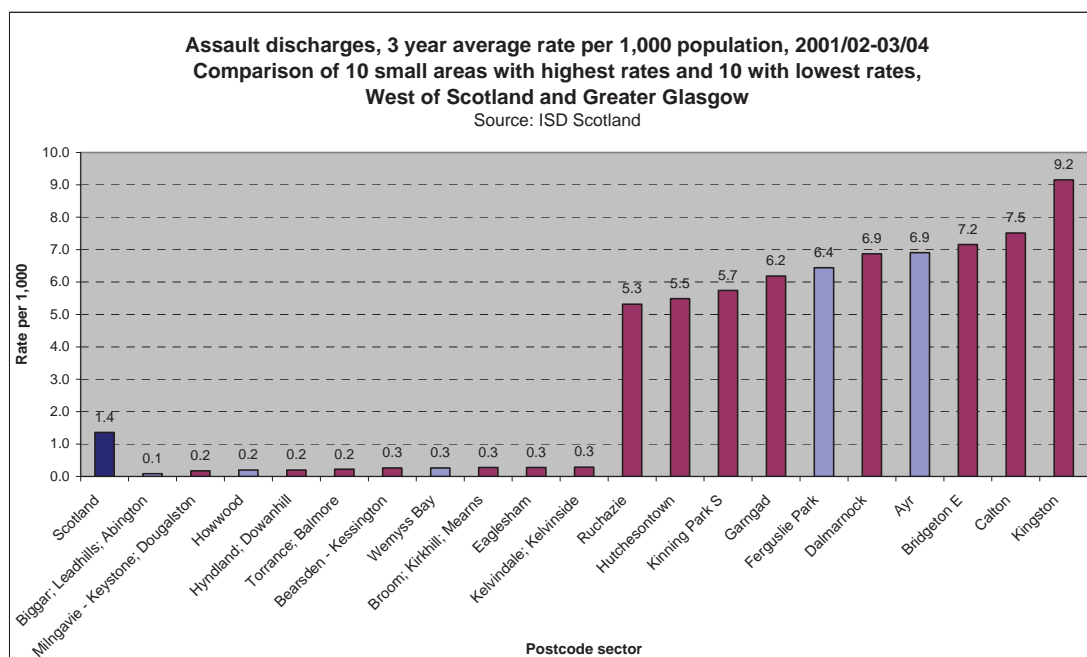
^{xix} It should be noted that some of these multiple admissions may be readmissions for treatment of injuries caused in one rather than many assault incidents.

Figure 5.48



Currently hospital discharge data do not record where an incident of assault occurred. However, it is possible to look at where victims admitted to hospital after an assault normally reside at a small area level. An analysis across the West of Scotland at a postcode sector level shows large variations between low assault discharge rates for populations in relatively affluent areas and the highest assault discharge rates associated with people living in more deprived areas (Figure 5.49). The differences are stark. The rates in the ten sectors with the highest rates are three to seven times higher than the Scottish rate, while, in the ten areas with the lowest rates, rates are less than a quarter of the Scottish rate. Although these rates are still based on small numbers – in the sector with the highest rate the actual number of assault discharges recorded in 2003/04 was 25 – taken collectively it is clear that people living in more deprived areas suffer far higher levels of assaults that require overnight hospital treatment.

Figure 5.49

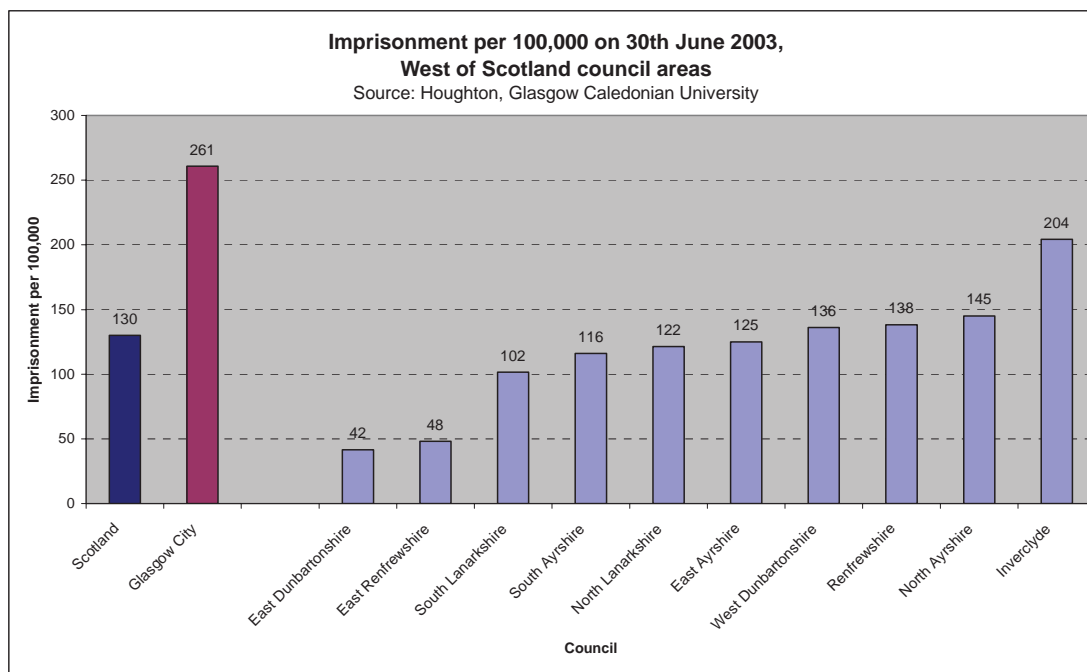


Imprisonment rates

A recent report investigated imprisonment and social exclusion in Scotland⁶ and this section summarises a selection of the findings.

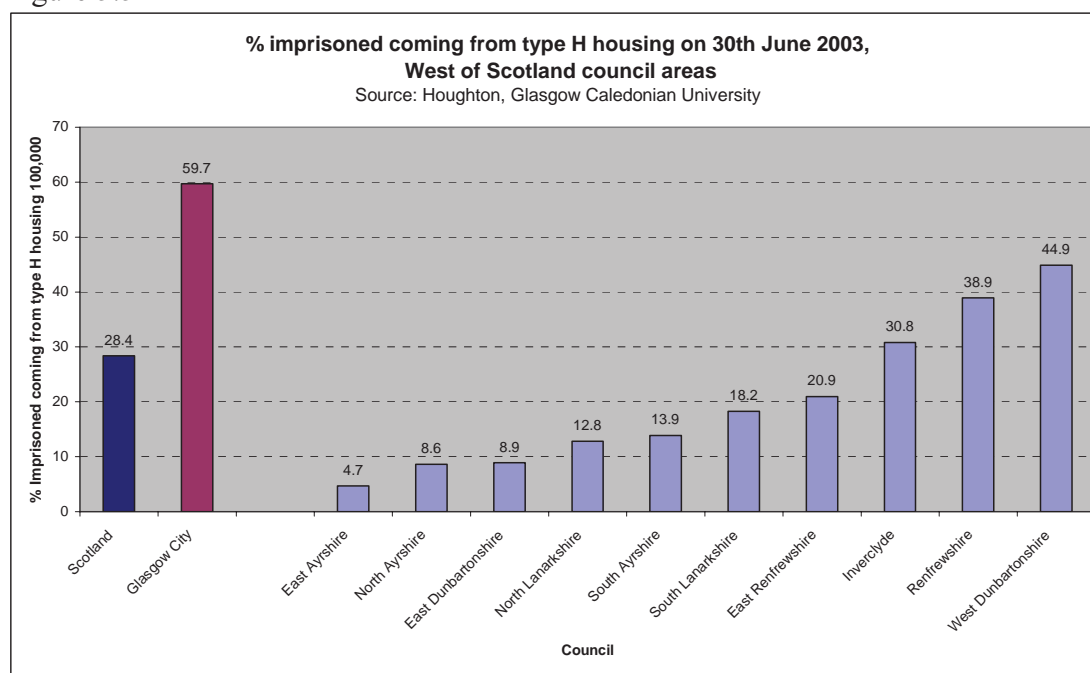
A comparison of imprisonment rates across the West of Scotland (Figure 5.50), as at June 2003, shows that the lowest rates of imprisonment were in East Dunbartonshire and East Renfrewshire, while the highest rates occurred in Inverclyde (five times the rate in East Dunbartonshire) and Glasgow City (six times higher).

Figure 5.50



The socioeconomic background of prisoners was also investigated by an analysis of the proportions of prisoners coming from Group H housing – an ACORN^{xx} classification that includes housing areas characterised by high unemployment, overcrowding, council ownership, high proportion of lone parents and poorer families. This analysis reveals that, in June 2003, 60% of prisoners from Glasgow came from Group H type housing compared to a Scottish average of 28% (Figure 5.51).

Figure 5.51



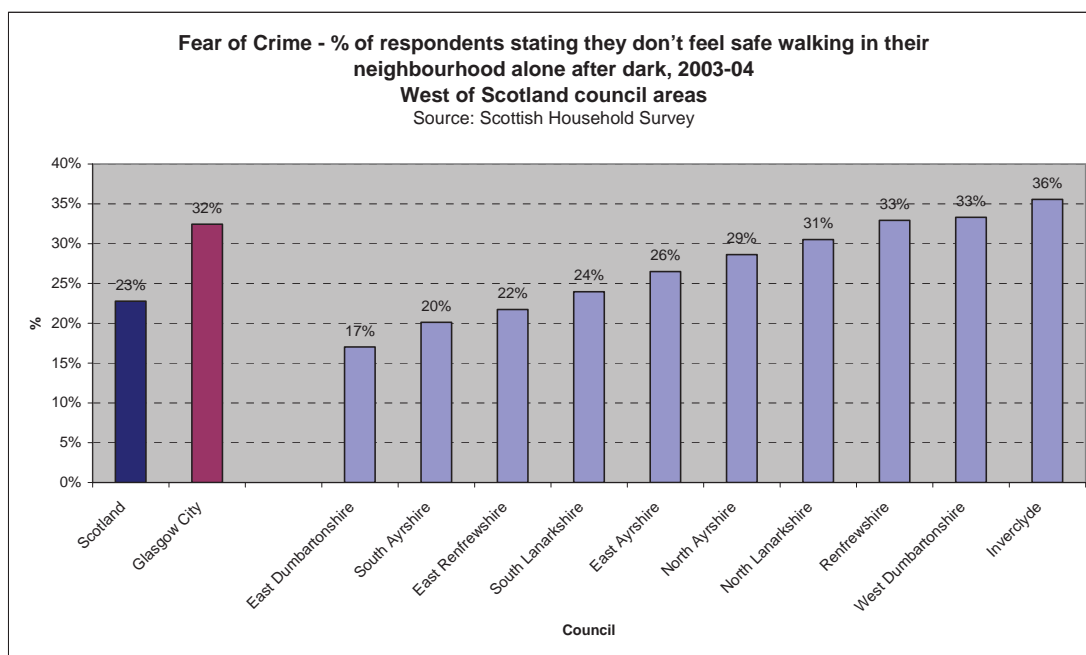
While there are 1,222 local government wards in Scotland, the home address of a quarter of the prisoner population (of 6,007) is in just 53 wards, where 7.0% of the population live. Of these 53 wards, 35 are in Glasgow. There is a strong correlation between the probability of spending time in prison and deprivation (SIMD).

Fear of crime

In this section a question from the Scottish Household Survey is used to illustrate safety concerns within neighbourhoods. The question asked respondents to state whether they felt safe walking in their neighbourhood alone after dark. Across the West of Scotland in 2003/04, the proportion of respondents stating that they didn't feel safe ranged from 17% in East Dunbartonshire to 36% in Inverclyde, while the figure for Glasgow was 32% (Figure 5.52).

^{xx} ACORN is a housing classification produced by the market research company CACI. The Scottish ACORN version classifies housing into 43 types, which aggregate up to eight groups, of which Group H is one; 10.2% of the Scottish population live in this type of housing.

Figure 5.52

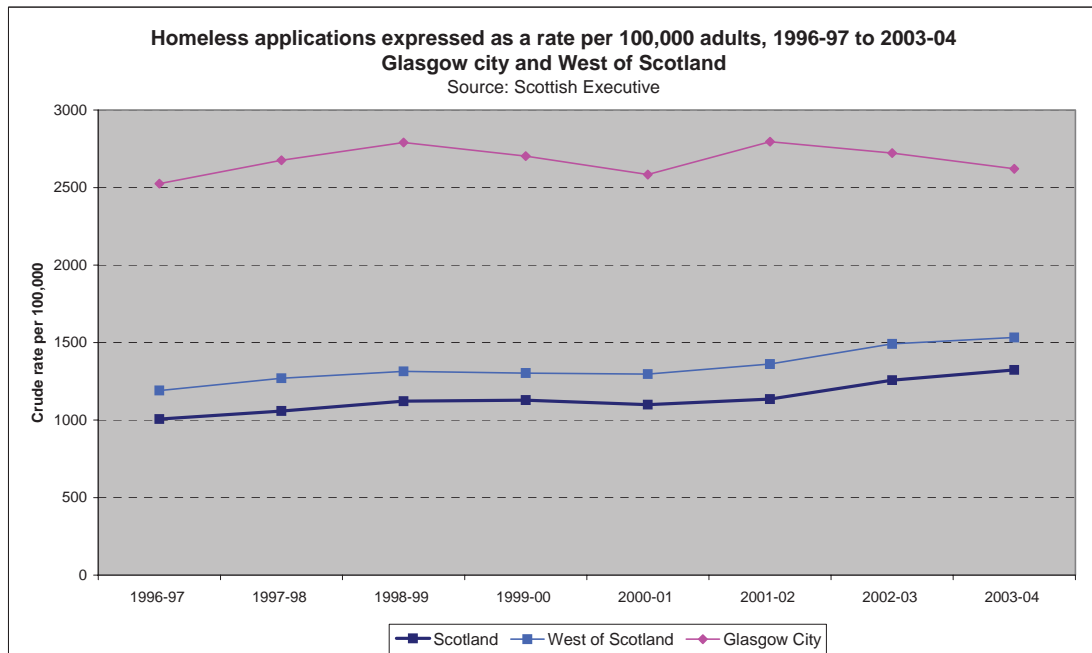


5.5 Homelessness

Across all Scotland in 2003-04 there were approximately 55,000 applications made under the Homeless Persons legislation⁷. This figure increased steadily over the previous 12 years – for example the figure in 1992-93 was under 43,000. Of those 55,000 applications, just under a quarter related to Glasgow City; a figure of just over 12,500, which has changed little over the past eight years.

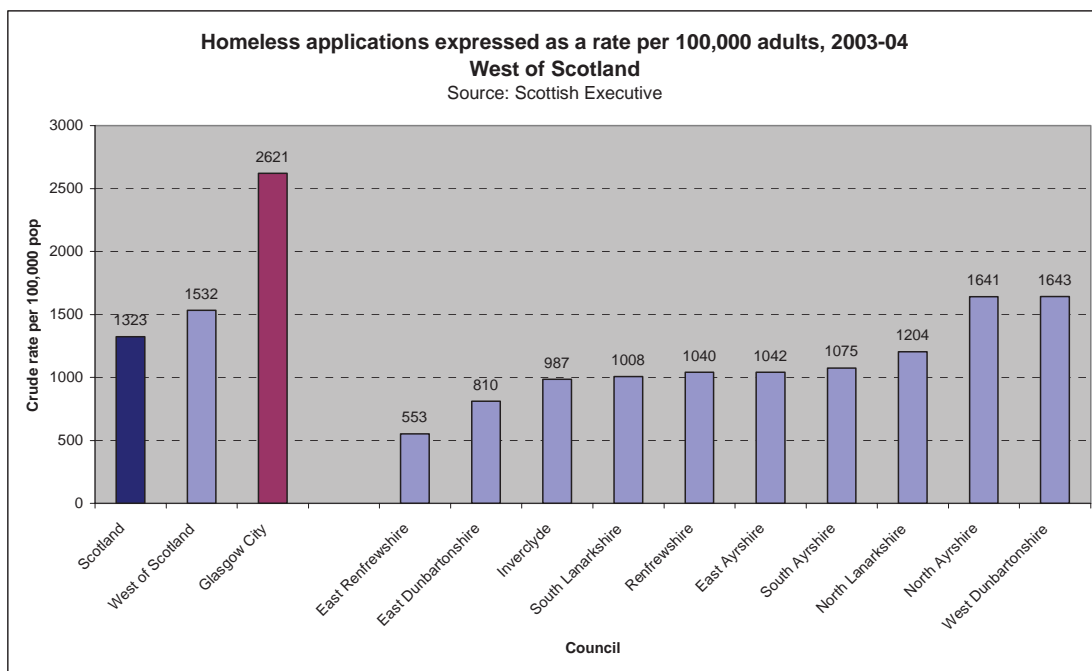
Proportionally, however (i.e. as a crude rate per 100,000 population), homelessness applications in Glasgow have been considerably higher than the combined total for the West of Scotland local authority areas, and indeed the rate for 2003-04 is around twice the rate for the whole country in that year (Figure 5.53).

Figure 5.53



Finally, Figure 5.54 shows homelessness application rates in 2003-04 broken down for each individual West of Scotland council area. Glasgow again stands out as the council area with by far the highest proportion of homelessness applications.

Figure 5.54



Summary

- Glasgow City has the highest proportion of pupils from minority ethnic communities of any Scottish council (10.9%), equating to 7,500 pupils. It also has the highest percentage of pupils from less affluent households – 42% of primary school pupils were eligible to receive free school meals in 2004, double the national average.
- In terms of attainment, East Dunbartonshire and East Renfrewshire stand out across the West of Scotland as having the highest proportion of adults with qualifications at degree level or with three ‘Higher’ qualifications.
- Estimates of new student participation rates – despite many caveats – suggest a strong degree of socio-economic patterning in terms of who attains a university level education. While in many of the affluent parts of the West of Scotland, a university education is the ‘norm’, only a minority of young people from the most deprived areas would currently be expected to enter higher education.
- Over recent years there have been increases in participation rates. However, there does not appear to be a narrowing of the gap in participation rates between the traditionally high participation communities of Anniesland, Bearsden & Milngavie and Eastwood and the rates in less affluent communities.
- The high proportions of lone parent families in many parts of Glasgow are highlighted by these figures. Equally, the polarity across Glasgow in the concentrations of lone parents as a percentage of all households with children is highlighted. While in Eastwood and Anniesland, Bearsden & Milngavie 13-14% of households with children are lone parent households, in Maryhill, Woodside & North Glasgow and Bridgeton & Dennistoun the percentages rise to around 50%.
- In terms of social capital, recent surveys present a mixed picture. Levels of civic engagement appear to be relatively low. However, while those in less deprived areas are more likely to have been a committee member etc. (11%), those in the more deprived areas were more likely to have taken action to address a local problem (13%). One in five Greater Glasgow residents are members of clubs or organisations, with significantly more membership in the least deprived areas (25%) compared to the most deprived (16%) areas.
- Levels of reciprocity and trust are relatively high as measured by survey results. Two-thirds of Greater Glasgow residents feel that neighbours look out for each other in their local area and that people can be trusted in their local area. However, levels of reciprocity and trust are significantly higher in the least deprived areas compared to the more deprived. Relatively low proportions of Greater Glasgow residents reported feeling isolated from friends and relatives (15% of respondents).

- The majority of Greater Glasgow residents have a positive perception of their local area as a place to live and to bring up children: 73% and 64%, respectively. However, respondents from more deprived parts of the city are much less positive about their local areas compared to those from more affluent areas.
- Voter turnout patterns and trends show that levels of voting are generally lower in Glasgow than in the rest of Scotland, and that there has been a dramatic drop in voting turnout since 1992.
- Glasgow City has the highest overall crime rate among councils in Scotland. Within the West of Scotland, Glasgow has the highest rates for a range of crime types including serious assaults, crimes involving offensive weapons, domestic housebreaking, non-sexual crimes of violence, crimes of indecency and crimes of dishonesty.
- Crimes of disorder, vandalism, vehicle crime and housebreaking are all highest in the city centre area of Glasgow. Crimes of disorder and vandalism show a clear correlation with deprivation, while vehicle crime and housebreaking appear to be less related to social patterning of areas.
- Detailed analysis of violent crime patterns in Glasgow shows that male offenders outnumber females by over three to one and the peak ages for offenders and victims are the mid-teenage years to early twenties. The area of residence of offenders and victims is highly correlated with deprivation and in some smaller communities in Glasgow over one in ten people have been the victim of a violent crime in the last three years. Incidents of violent crime are highly concentrated in the centre of the city.
- Recorded incidents of domestic abuse vary considerably across the West of Scotland with the highest recorded rate in West Dunbartonshire (64% above the Scottish average) and the lowest in East Renfrewshire (58% below the Scottish average). The rate for Glasgow is the second highest in the West of Scotland and is 56% above the Scottish average.
- Rates of assault admission in Glasgow are much higher than the Scottish average across all ages. The specific diagnosis of assault that predominates in Glasgow is 'assault by sharp object', which is likely to be a reflection of the high rates of knife crime in the city. People from more deprived areas suffer far higher levels of assault that result in hospitalisation.
- Across the West of Scotland, the lowest rates of imprisonment occur in East Dunbartonshire and East Renfrewshire, while the highest rates are in Inverclyde (five times the rate in East Dunbartonshire) and Glasgow City (six times higher). There is a very strong correlation between deprivation and imprisonment.
- Homelessness applications in Glasgow have been double the Scottish average for the last eight years and are much higher proportionately than in the other West of Scotland council areas.

- In summary, Glasgow is a city where deprivation/affluence clearly matters, whether it is in relation to educational attainment, the chances of being a lone parent or likelihood of being affected by crime. And while for some measures of social capital, Glasgow's profile is quite positive (e.g. in terms of trust, low levels of isolation, high levels of satisfaction with the local area), other measures, particularly levels of violent crime, domestic abuse and imprisonment, reflect a darker side to the city.

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Summary

Despite major improvements in housing in Glasgow and the West of Scotland in recent decades, significant numbers of properties still suffer from rising damp, poor heating efficiency, condensation and mould.

The last 20 years have seen a dramatic decrease in the levels of overcrowding, and a dramatic increase in the numbers of owner occupiers. However, equally striking variations in the levels of both indicators across Glasgow and the West of Scotland are evident today.

Surveys have shown a range of environmental issues to be causes of concern to Glasgow residents, and these concerns are backed up by other sources of data which highlight relatively high levels of litter and dog fouling in the city. Considerable concern also exists about levels of problematic behaviour in Glasgow (e.g. young people hanging around, drink and drug activities), especially in the more deprived parts of the city.

Traffic volume has increased year on year in the West of Scotland in recent times and it is projected to grow further in the next two decades (with almost a 25% rise in Glasgow predicted by 2021).

Glasgow's deprived areas are relatively well served by the council in terms of accessibility to leisure centres. However, areas have been identified where access is a major problem.

Significant proportions of the population of Glasgow and the West of Scotland live in proximity to derelict land, landfill sites or sites of potential industrial pollution.

"There have been major improvements in housing in Glasgow and West Central Scotland in recent decades."

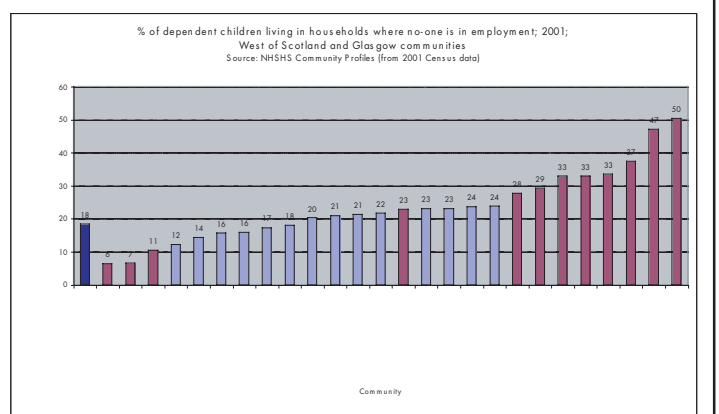
"The ten small areas with the lowest rates of owner-occupancy are all in Glasgow, with eight out of ten areas with the highest rates also located within Glasgow communities."

"Environmental issues (e.g. dog dirt, traffic, young people hanging around, alcohol and drug activities) are more likely to be perceived as problems in the more deprived parts of the city."

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 6: Physical environment

The physical environment has long been recognised as a key determinant of health, and is described as such in many of the current models of health. The surroundings in which people live and work can influence health both *directly* (e.g. through toxic, allergenic, or infectious agents) and *indirectly* through influencing behaviours (e.g. the availability of a local environment in which to walk or cycle). The quality of their physical environment also affects people's mental health and well being (which in turn may affect their physical health). This chapter summarises a few examples of data relevant to the physical environment for the Glasgow and West of Scotland area. These data have been grouped into six broad categories: housing; neighbourhood characteristics and perceptions; traffic volume and air quality; access to services; sites of environmental concern; and 'greenspace'.

6.1 Housing

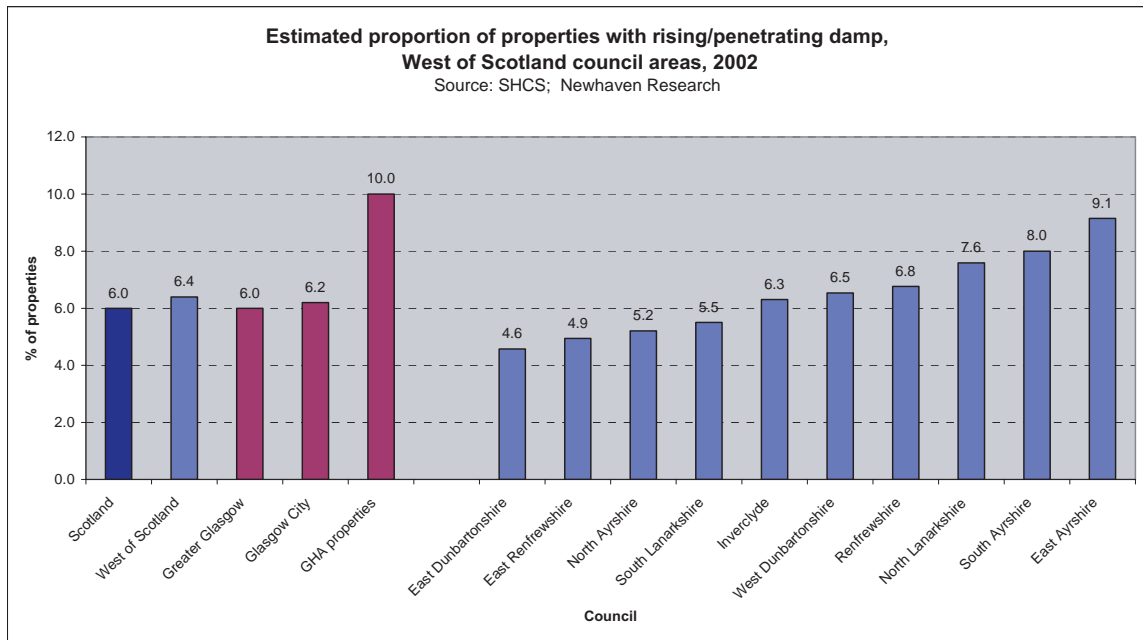
House condition

The last 25 years have seen large-scale investment in the quality of housing stock in Glasgow and the surrounding West of Scotland area, both in terms of renovation of existing properties and in the creation of new developments. However, analysis of the 2002 Scottish House Condition Survey¹ (including sub-analysis of the Glasgow Housing Association (GHA) stock) shows that, for many people, problems remain:

- An estimated 20,000 properties in Scotland (1% of the total number) are classed as **below tolerable standard'** (BTS)ⁱ and, of these, one fifth (4,000 properties) are located within Glasgow.
- Nationally, about 6% of properties have **rising/penetrating damp**, and this is also true for the West of Scotland generally, and for Glasgow specifically (although the figure for GHA properties within Glasgow is higher at 10%). At a council level, the proportion ranges from 4.6% (East Dunbartonshire) to 9.1% (East Ayrshire). These figures equate to over 20,000 properties in Greater Glasgow, including approximately 8,000 GHA properties. This is all illustrated in Figure 6.1.

ⁱ The 'tolerable standard' is the minimum standard of house condition required by Scottish law.

Figure 6.1



More than one in ten properties in Scotland, the West of Scotland, and Greater Glasgow have mould in at least one room, ranging (at a council level) from 7% in East Renfrewshire to 15% in East Ayrshire (Figure 6.2). For the West of Scotland this equates to an estimated 100,000 properties (with, for example, over 30,000 such properties in Glasgow, and 17,500 in North Lanarkshire).

Figure 6.2

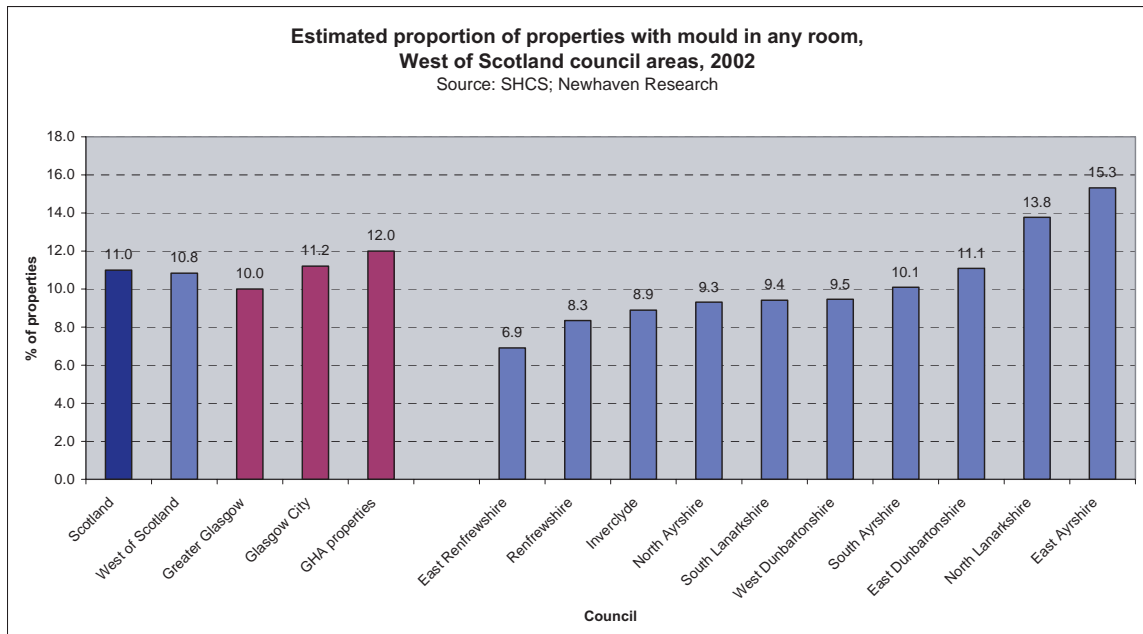
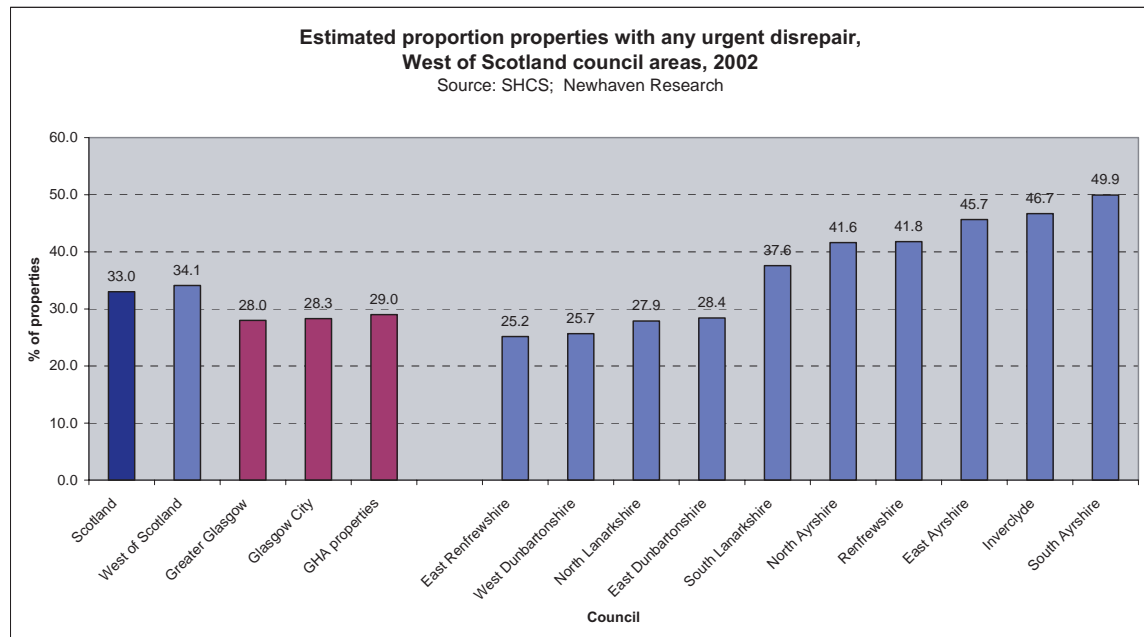


Figure 6.3 shows that over 30% of properties in the West of Scotland are estimated to be in “urgent disrepair”ⁱⁱ, ranging from 25% in East Renfrewshire to 50% of all properties in South Ayrshire. The figure for Glasgow is 28% (Figure 6.3). This represents over 300,000 properties in the West of Scotland, over a third of which are within the Greater Glasgow area.

Figure 6.3



It should also be noted that an estimated 27,000 properties in Greater Glasgow have poor heating efficiency (as defined by the National Home Energy Ratingⁱⁱⁱ). Included in this number are an estimated 10,300 GHA properties (13% of the total GHA stock).

It is worth noting that in Glasgow a new, and large, programme of regeneration of the city’s socially rented housing stock is soon to be undertaken². To accompany this, the Glasgow Centre for Population Health has been commissioned to carry out a research programme to investigate the impacts of neighbourhood change in a number of communities, including some which will undergo major programmes of regeneration (‘the GoWell programme’). Although this is a ten-year research programme, interim reports will be produced as data become available.

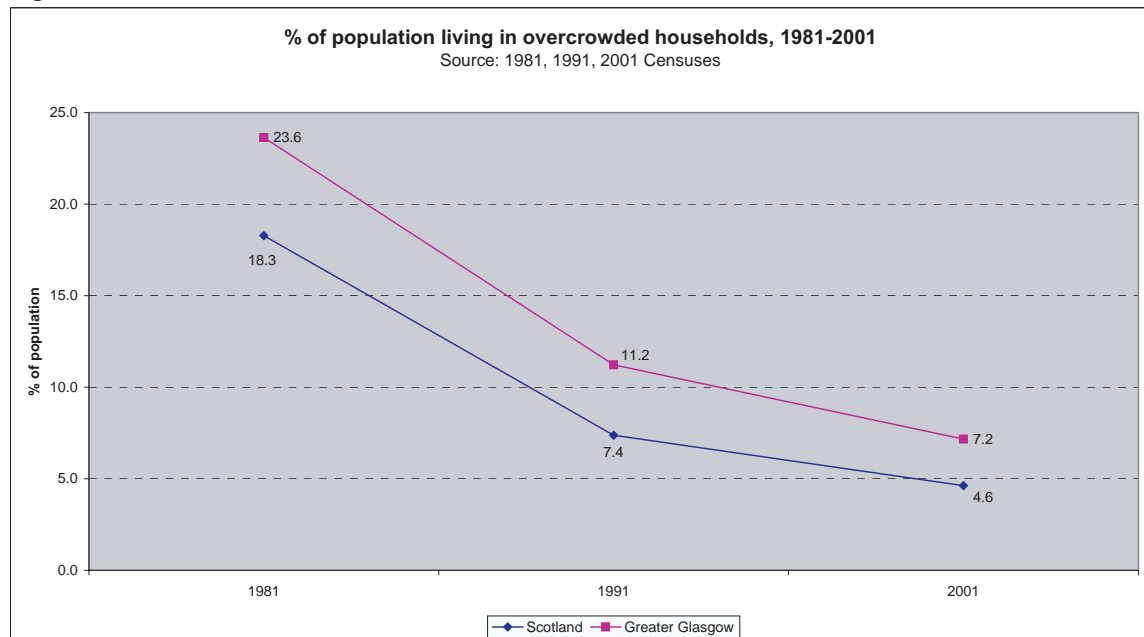
ⁱⁱ Urgent disrepair defined as: disrepair, that if not repaired, would cause the fabric of the building to deteriorate further and/or place the health and safety of residents at risk.

ⁱⁱⁱ Full definition available from the 2002 Scottish House Condition Survey report (see references section of this chapter).

Overcrowding

Levels of overcrowding^{iv} (a key indicator of socio-economic deprivation, and used in a variety of deprivation indices such as Carstairs³ and the new Scottish Index of Multiple Deprivation (SIMD⁴)) have declined dramatically in Scotland over the past 20 years. Expressed in terms of *individuals* (the measure used in the above deprivation indices), the proportion of the population living in overcrowded households in Scotland decreased from 18% of the population in 1981 to less than 5% in 2001^v. A similarly dramatic decline took place across all Greater Glasgow. This is illustrated in Figure 6.4^{vi}.

Figure 6.4



Despite this overall decline, huge variations in rates of overcrowding remain. Expressed in terms of *households* (as was done in the Community Profiles⁵), the proportion of all households in Scotland classed as overcrowded in 2001 stands at just under 12%. However, at a 'community'^{vii} level across Greater Glasgow and the West of Scotland this figure ranges from 6% in Eastwood to around 30% in Bridgeton & Dennistoun (Figure 6.5). At a small area level (Figure 6.6), the contrasts are again greater: from around 1% to 4% of households in the areas with the lowest rates (e.g. Alloway, Giffnock, Newton Mearns); to around 30% to 35% in the small areas with the highest rates (e.g. Govan, Easterhouse, Parkhead).

^{iv} See Appendix 1 for definition of this, and all other, indicators included in this chapter.

^v Note that other published figures quote the 1981 overcrowding figure for Scotland as 25%. However, to allow valid comparison with 1991 and 2001, a correction factor has been applied to the 1981 figure.

^{vi} Data in Figure 6.4 is for all 'communities' within NHS Greater Glasgow, the boundaries of which differ from the exact NHSGG boundary.

^{vii} These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see 'Preface to Chapters 2-12'.

Figure 6.5

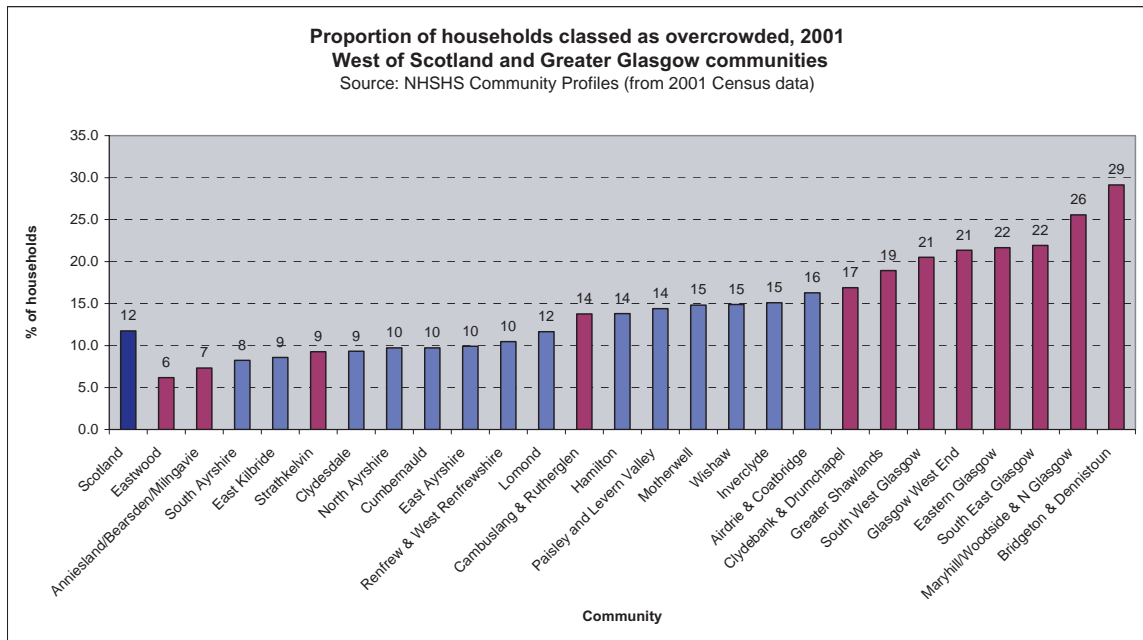
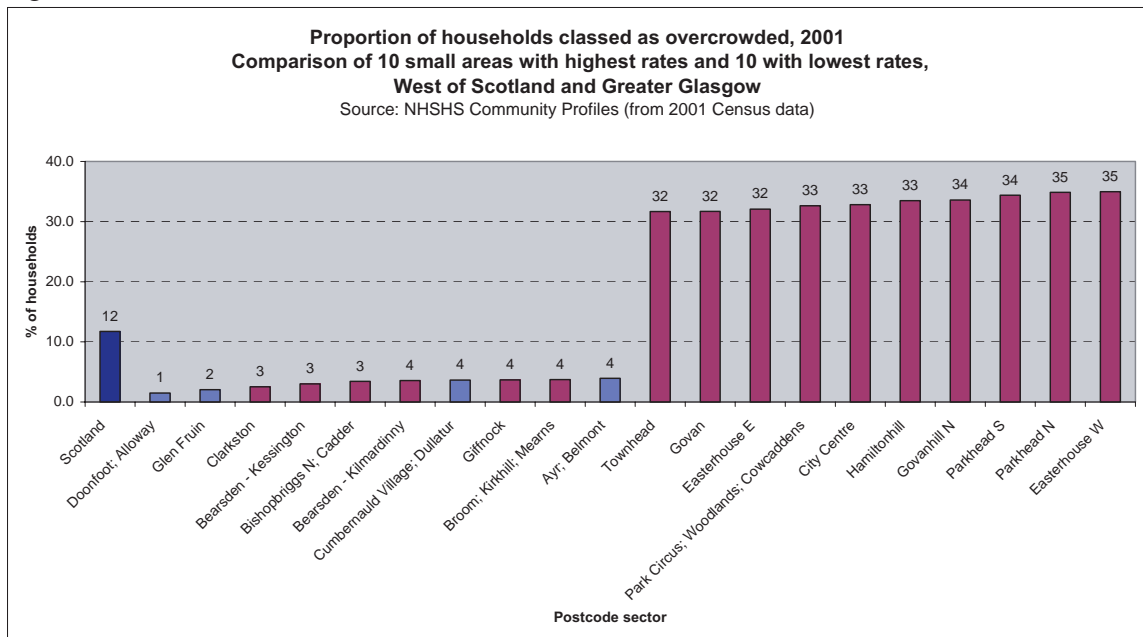


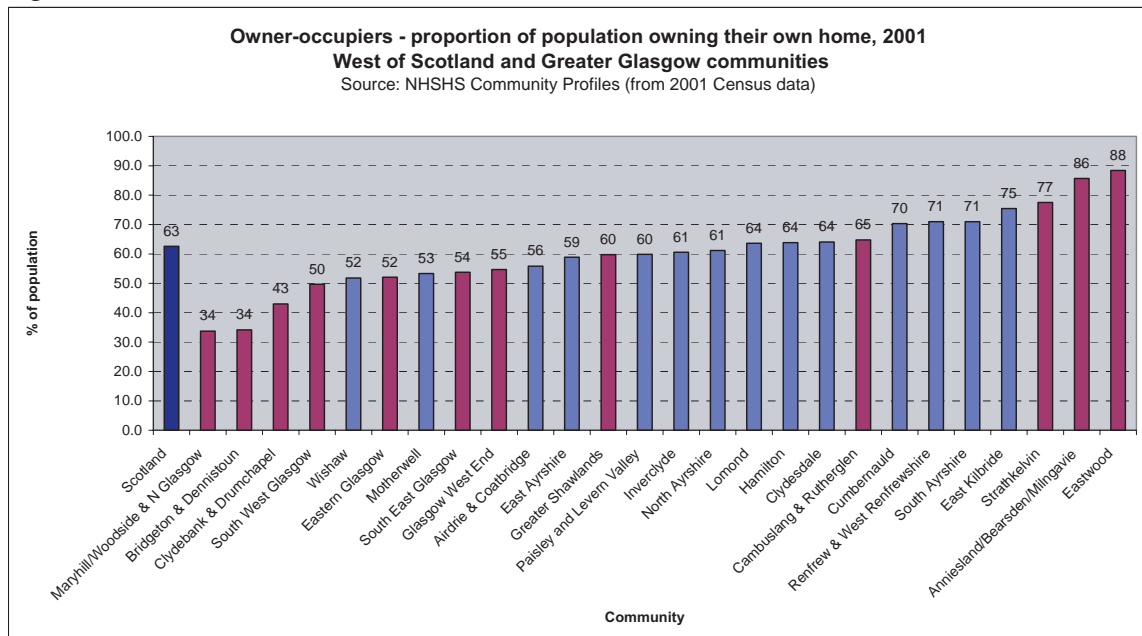
Figure 6.6



Tenure

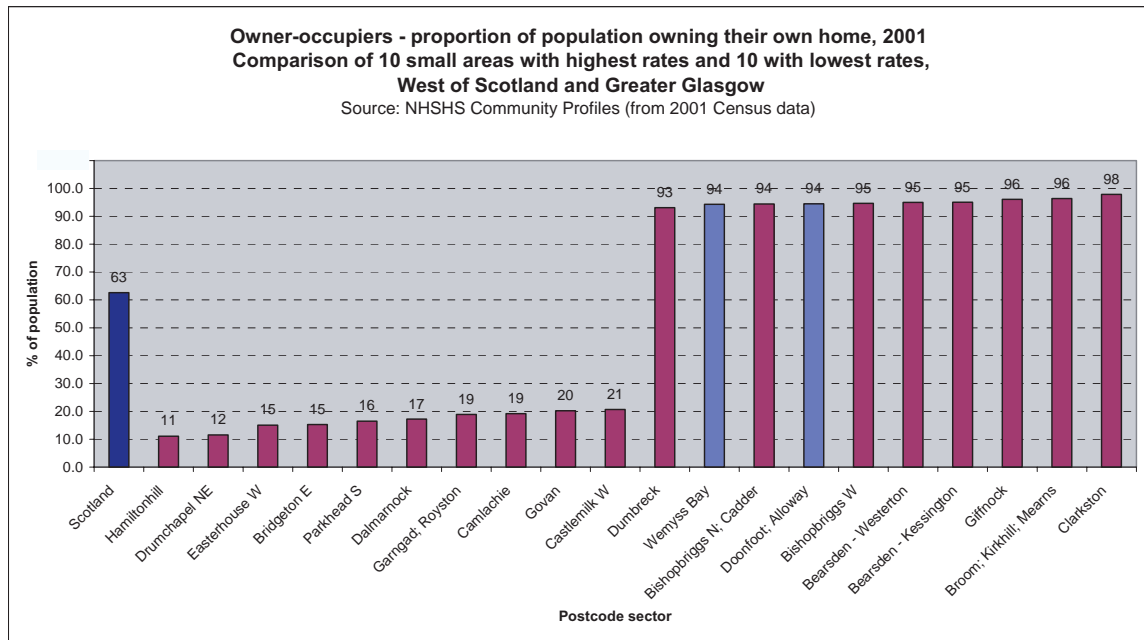
Housing tenure is an indicator which could just as easily sit in Chapter 4: Economic factors, as in this chapter. It is another indicator that has shown massive change in the past 20 years, with the proportion of properties owner-occupied in Glasgow having doubled between 1981 and 2001 (from 24% to 49%). However, huge variation in the levels of owner-occupancy across Greater Glasgow and the West of Scotland remain. Nationally in 2001, 63% of the population owned their own home. At a community level across the West of Scotland, however, this ranged from 34% in Maryhill, Woodside & North Glasgow to almost 90% in Eastwood (Figure 6.7). Greater Glasgow communities have the three highest and three lowest rates of owner occupancy in the West of Scotland.

Figure 6.7



At a small area level, huge contrasts are again evident: the ten small areas with the lowest rates of owner-occupancy (between approximately 10% and 20%) are all in Glasgow, while eight of the ten areas with the highest rates (between 93% and 98% owner-occupancy rates) are also located within Greater Glasgow communities (Figure 6.8).

Figure 6.8



Vacant dwellings

Figure 6.9 shows the proportion of households within each of the West of Scotland communities which are vacant dwellings. The national figure is just under 4%, but across Scotland it ranges from around 1% (Strathkelvin) to 7% (Paisley & Levern Valley).

Figure 6.9

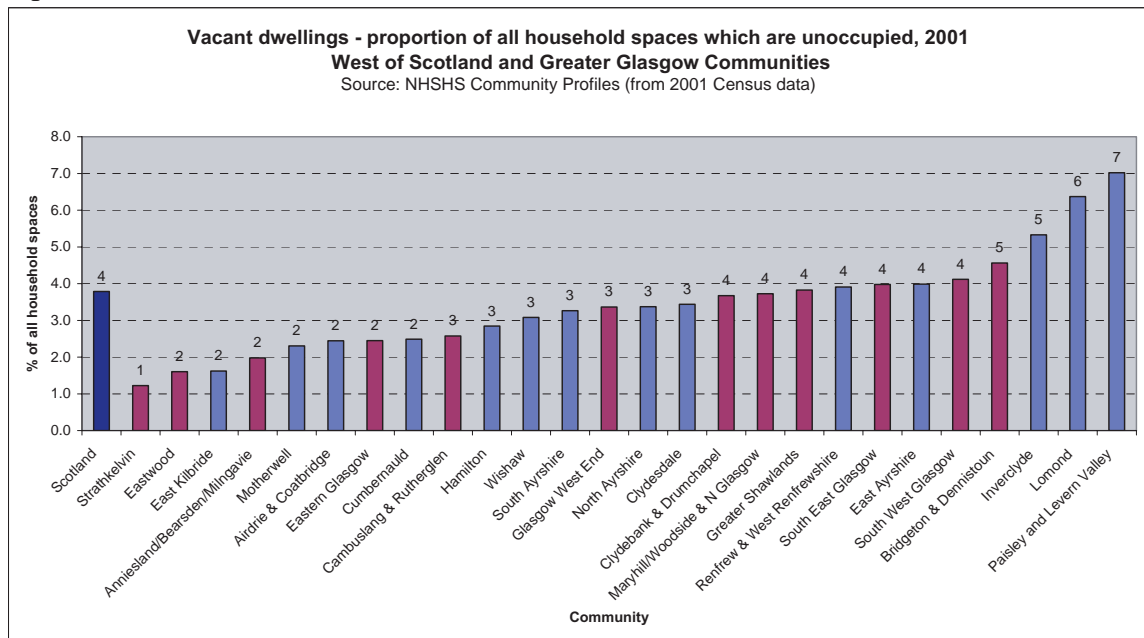
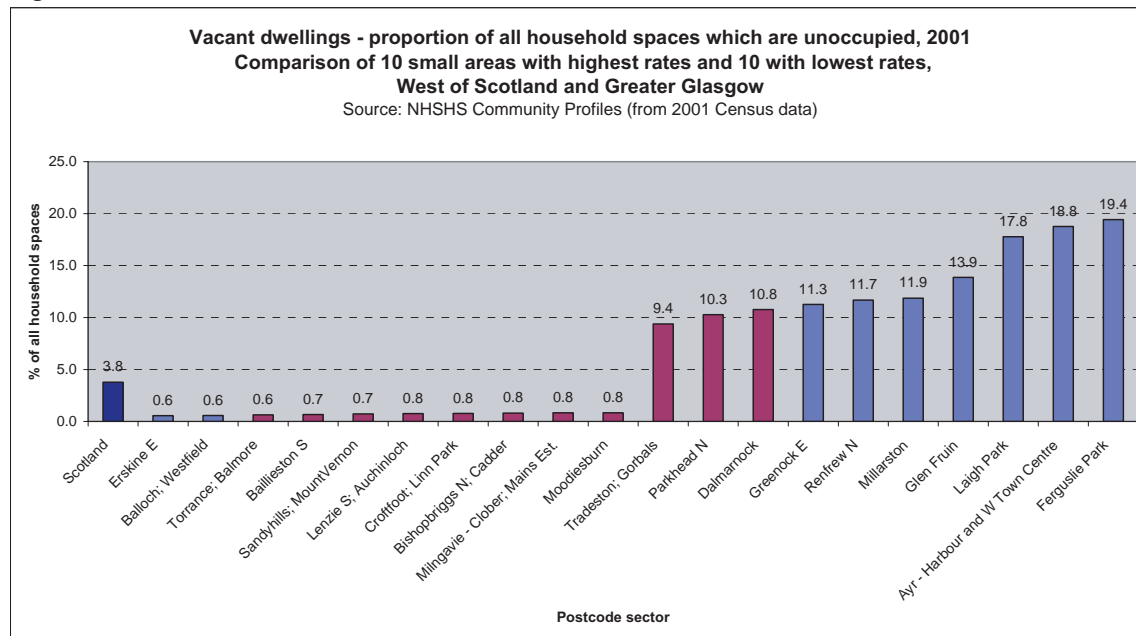


Figure 6.10 shows the same figures at a small area (postcode sector) level, contrasting the ten areas with the lowest rates (all under 1% of households) with the ten highest (e.g. Laigh Park and Ferguslie Park in Paisley, where almost one in five dwellings were vacant at the time of the 2001 census).

Figure 6.10



This highlights the fact that a number of the more deprived areas in the West of Scotland were characterised in 2001 by having high proportions of unoccupied properties. This is clearly likely to have a negative impact on the overall environmental quality of a neighbourhood. Further aspects of the overall quality of neighbourhoods are examined in the second section of this chapter.

6.2 Neighbourhood characteristics and perceptions

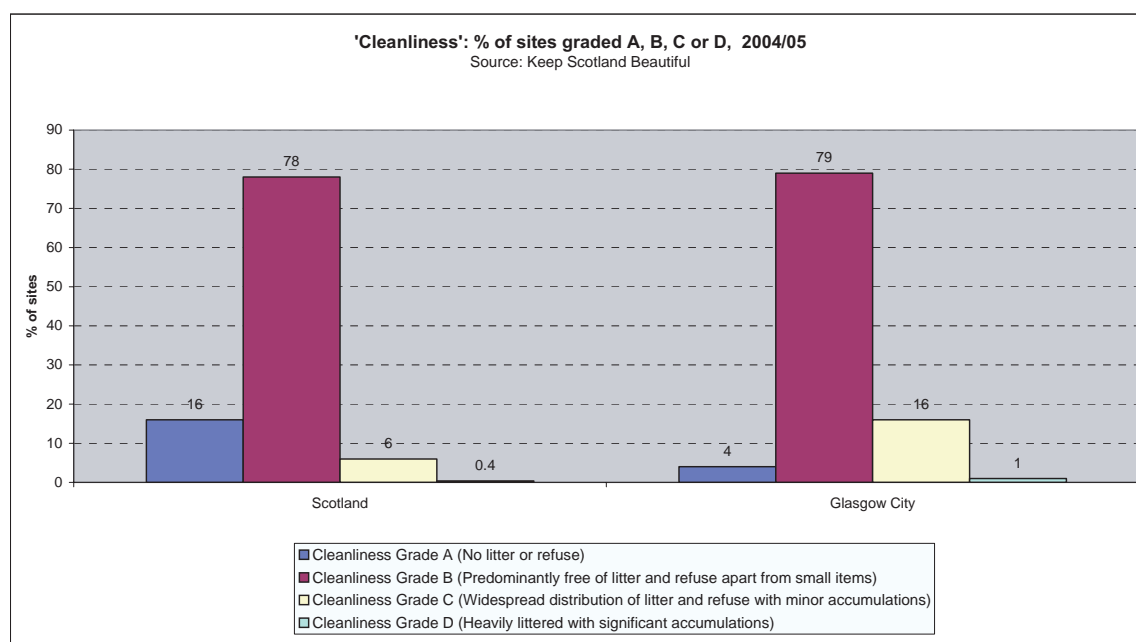
Cleanliness, litter and adverse environmental quality indicators

Levels of ‘cleanliness’ of different areas in Scotland can be assessed by means of data collated by the Keep Scotland Beautiful organisation. This is based on a 2% random sample of streets across the 32 council areas in Scotland, from which areas are graded according to the 1999 Code of Practice on Litter and Refuse^{viii}. Four grades of cleanliness are used:

- Grade A No litter or refuse
- Grade B Predominantly free of litter and refuse – apart from small items
- Grade C Widespread distribution of litter and refuse with minor accumulations
- Grade D Heavily littered with significant accumulations.

Under this system, sites graded ‘C’ or ‘D’ are deemed unacceptable. Figure 6.11 shows the grading of sites in Glasgow and, for comparison, Scotland. This shows that in Glasgow 17% of sites were ‘unacceptable’ (Grades C and D), compared to the national figure of 6.4%. Although not illustrated here, this is the highest figure among all West of Scotland councils (the lowest is in South Lanarkshire: 1%).

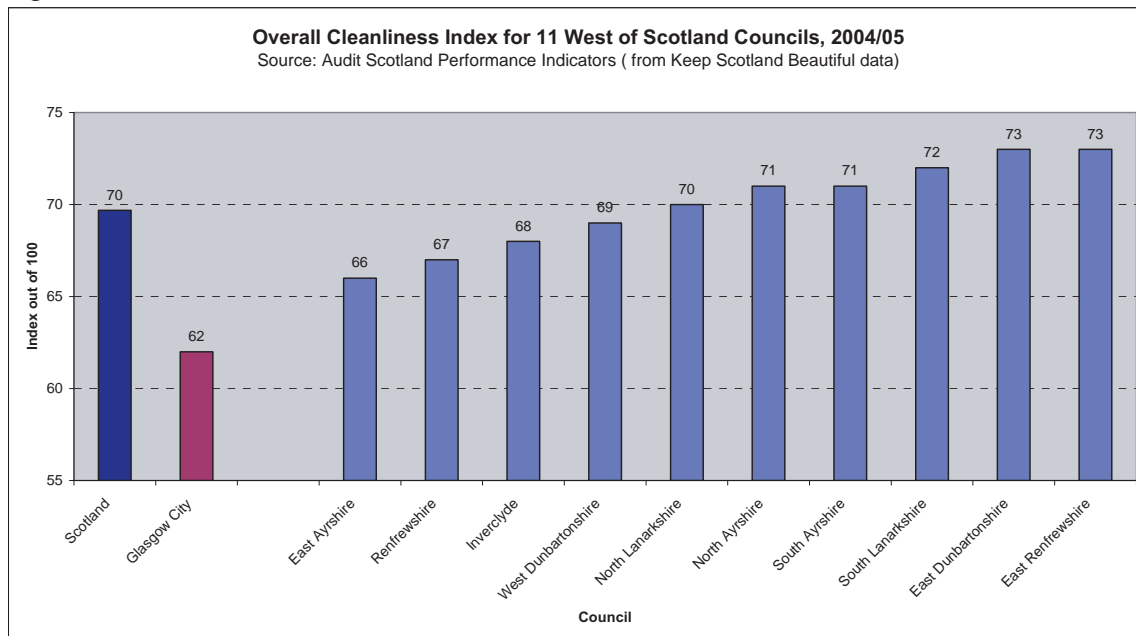
Figure 6.11



^{viii} Relates to Part IV of the Environmental Protection Act (EPA) 1990. Full details of relevant definitions, and methods used, are listed in Appendix 1.

From this grading information, Keep Scotland Beautiful has derived an Overall Cleanliness Index^{ix}. The figures for each West of Scotland council area are presented in Figure 6.12. This shows that Glasgow has the lowest ‘cleanliness’ score of the 11 areas (in fact, it has the lowest score of all 32 council areas in Scotland⁶).

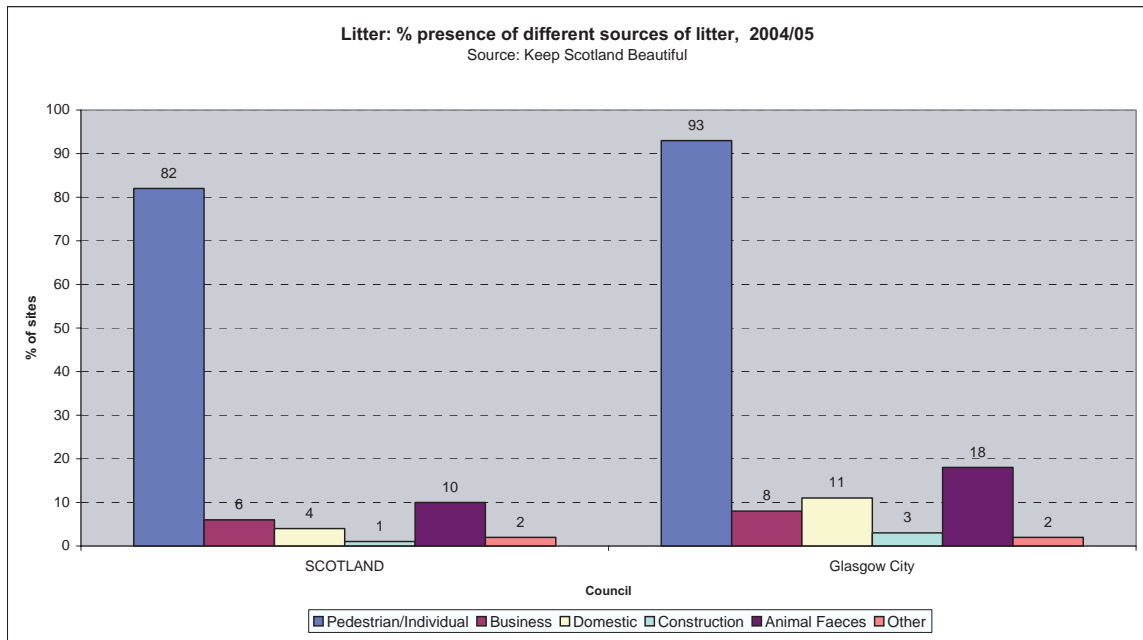
Figure 6.12



Keep Scotland Beautiful has also analysed litter problems at a council level and by source of litter. Figure 6.13 presents a summary of these data for Glasgow and Scotland, showing that pedestrians or individuals are by the far the most common sources of litter, with animal faeces the next most common source. In comparison to the other West of Scotland councils (not shown), Glasgow had the largest problem in terms of pedestrian/individual litter (93% of sites). It also had the second highest percentage for animal faeces (18%) after South Ayrshire (22%). The most common types of litter found were: smoking related litter, sweet wrappers, drinks related materials, and fast food litter.

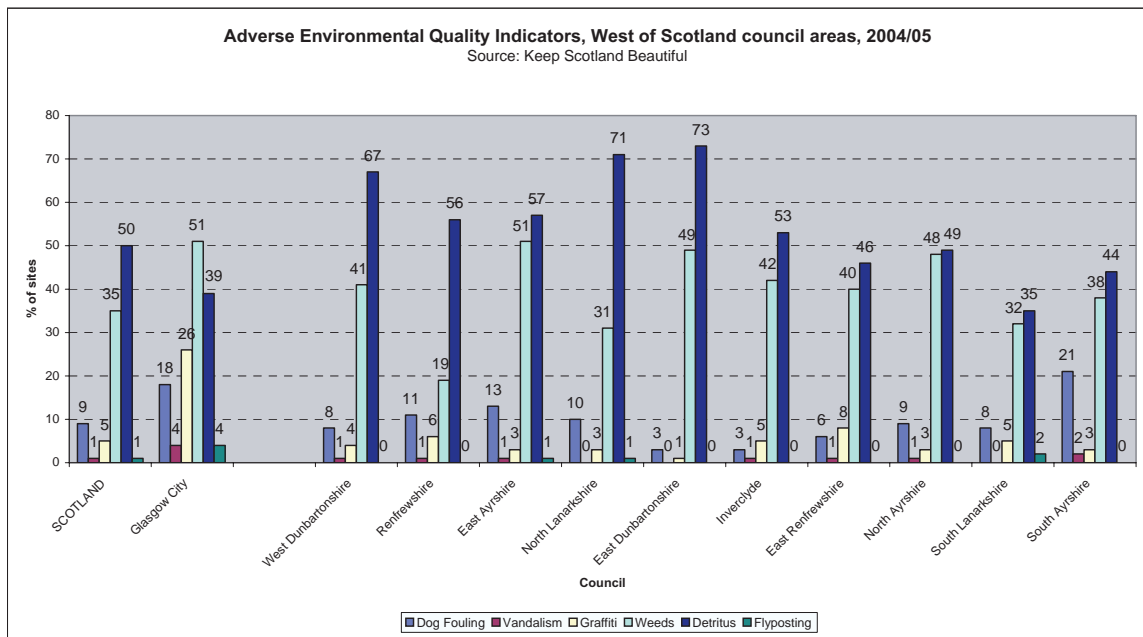
^{ix} Full methodology outlined in Appendix 1.

Figure 6.13



Keep Scotland Beautiful also produces ‘Adverse Environmental Quality’ indicators at a council level, showing the percentage of sites for which dog fouling, vandalism, graffiti, weeds, detritus (includes muck, grit, loose particles and leaves) and fly-posting were noted as a problem. Figure 6.14 summarises these indicators for the eleven West of Scotland councils. The key features of this graph are that while ‘detritus’ and weeds appear to be the most common problems across all the councils, perhaps the most concerning issues for Glasgow are dog fouling (second highest level in West of Scotland) and graffiti (highest).

Figure 6.14



Perceptions of neighbourhoods

Issues such as those outlined above will clearly influence residents' perceptions of their neighbourhoods. These perceptions were measured by NHS Greater Glasgow's Health and Well-being Survey of 2002⁷. Figure 6.15 shows the results of ten survey questions relating to perceptions of problems in the local area. These are presented for Glasgow City area (results for Greater Glasgow are also available, but are very similar), and analyse responses within the city by those living within Social Inclusion Partnership (SIP) areas at the time of the 2002 survey compared to those who were not. Important issues include:

- Young people hanging around (perceived as a problem by almost 70% of the population: 82% in SIP areas)
- Drug activity (perceived as a problem by 59% overall: 77% in SIP areas)
- Excessive drinking (58% overall: 77% in SIP areas)
- Vandalism/graffiti (55% overall: 75% in SIP areas)
- Car crime (43% overall: 55% in SIP areas).

Figure 6.15

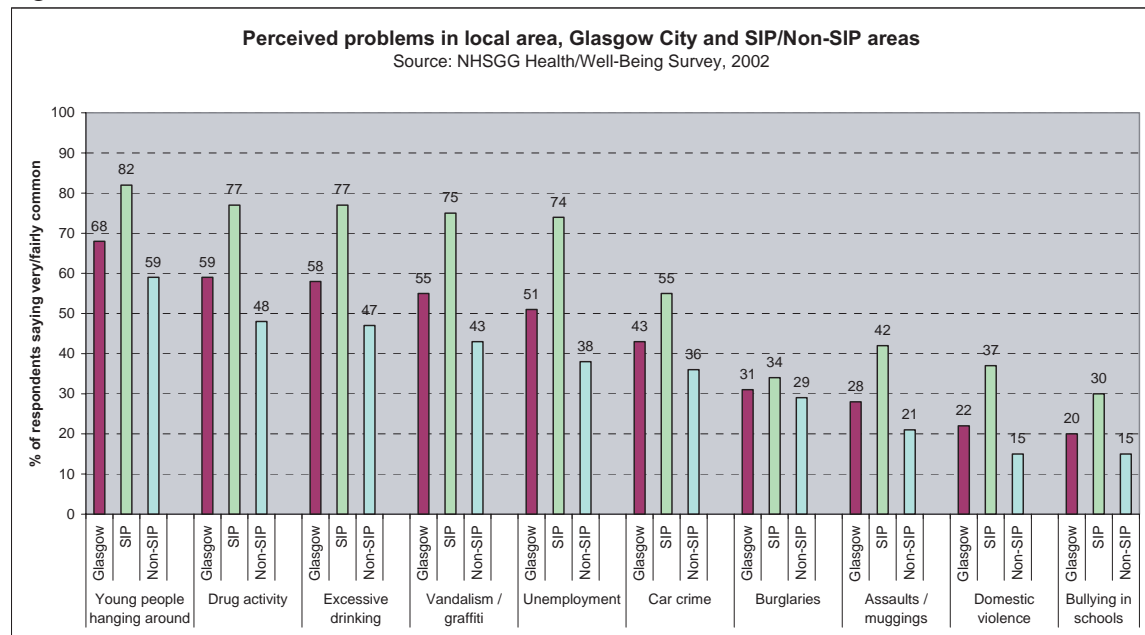
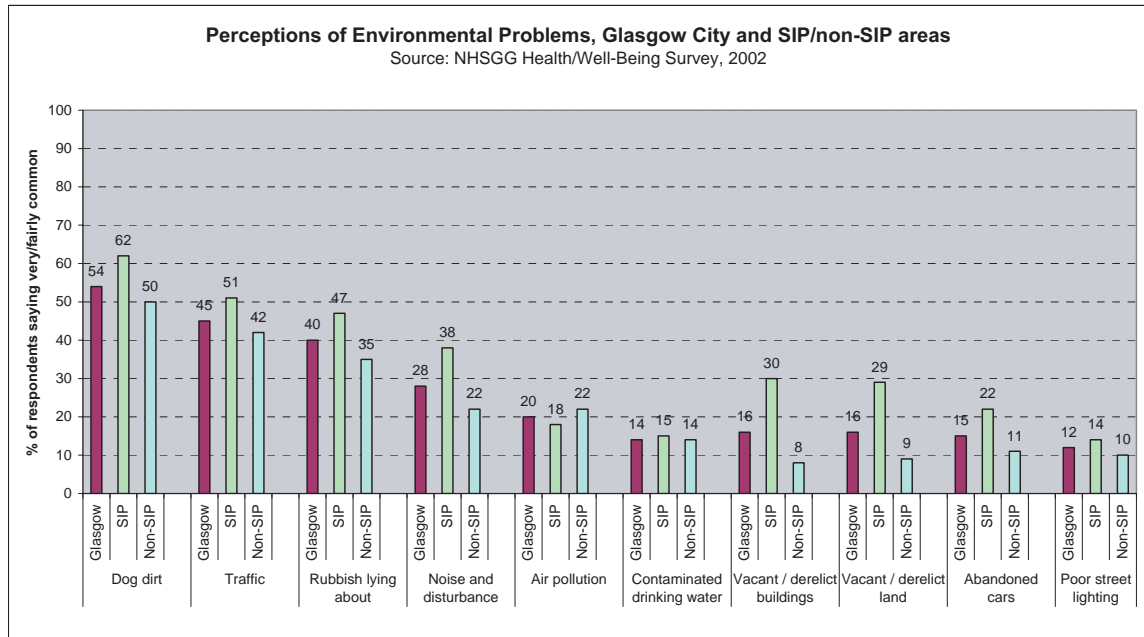


Figure 6.16 presents a similar range of ten survey question responses, this time with regard to perceptions of environmental problems in local areas. The biggest identified problems (seen as 'very' or 'fairly' common) are:

- Dog dirt (54% perceiving this as a problem, rising to 62% in SIP areas)
- Traffic (45% overall: 51% in SIP area)
- Rubbish lying about (40% overall: 47% in SIP area)
- Noise and disturbance (28% overall: 38% in SIP area).

Figure 6.16



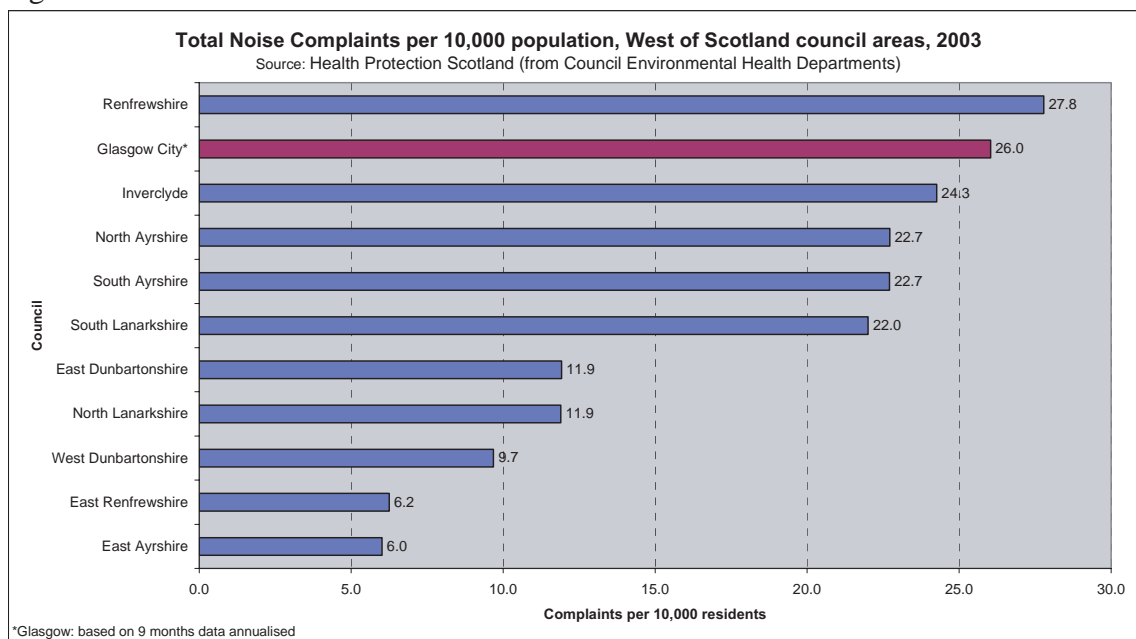
These figures suggest high levels of concern about some behavioural and environmental issues in Glasgow neighbourhoods, particularly in the more deprived (SIP) areas. One of these concerns – noise and disturbance – is considered in more detail in the next section below.

Noise complaints

Noise complaints are collected by environmental health departments within councils and the data have been collated by Health Protection Scotland as part of their EHS3 project^x. Comparing total noise complaints across all West of Scotland councils, the highest rate of complaints in 2003 was in Renfrewshire followed by Glasgow and then Inverclyde (Figure 6.17).

^x Environmental Health Surveillance System for Scotland (EHS3).

Figure 6.17



It should be noted, however, that these figures may be misleading in a number of ways. First, an individual could have complained on many occasions (thus inflating the population rate). Second, the system only records complaints made to an environmental health department (thus underestimating the real scale of noise problems in a council area). Furthermore, the numbers are clearly dependent on how likely people are to make a complaint in each area. Finally it is more important to note that noise complaints can be subdivided by type (e.g. domestic, industrial, etc.) but this level of detail is not reported here, given these concerns regarding the reliability of the data^{xi}.

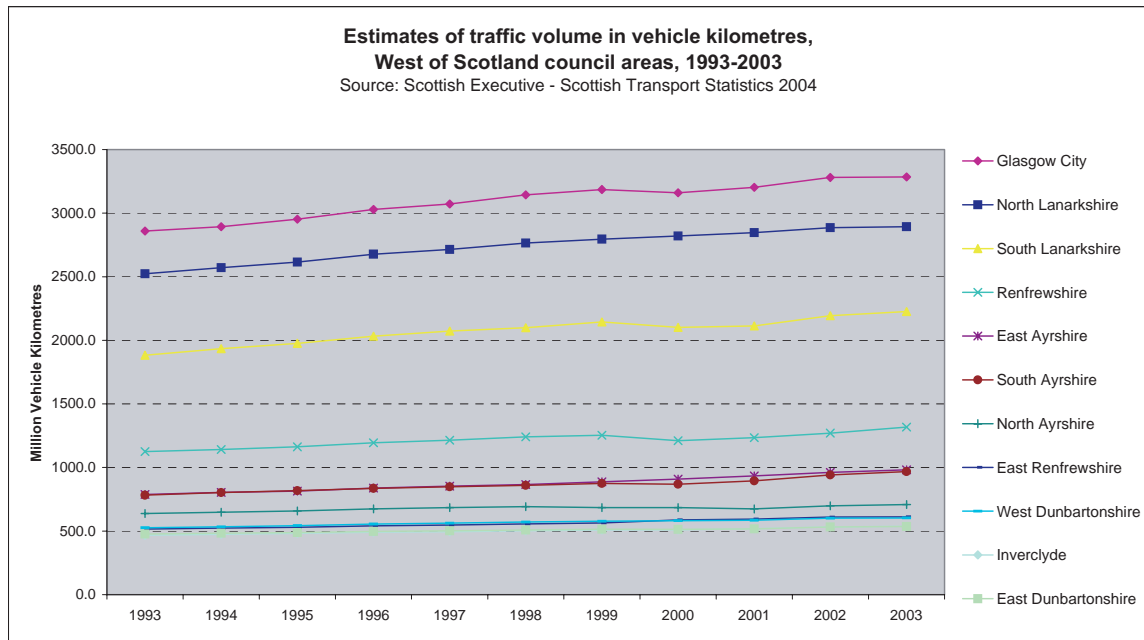
6.3 Traffic volume and air quality

The estimated total volume of traffic on Scotland's roads in 2003 was 42 billion (thousand million) vehicle kilometres. The West of Scotland accounted for 35% of that figure (14.5 billion vehicle kilometres).

Figure 6.18 shows the figures for West of Scotland council areas, by year, for the period 1993-2003. Within all Scotland (not shown) there was an 18% rise in traffic volume over this period, with similar rises evident across most of the council areas shown.

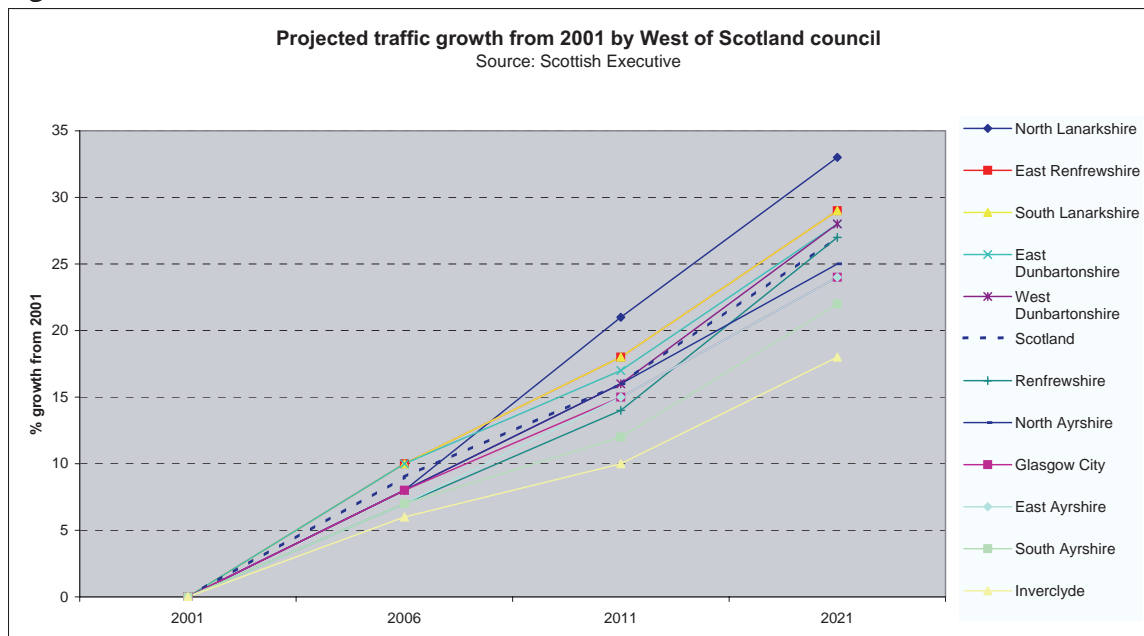
^{xi} Some of these discrepancies may be resolved (or partially resolved) in future by means of a European Union Noise Directive requiring (by June 2007) the creation of local "noise maps" for specific areas.

Figure 6.18



More strikingly, Figure 6.19 shows projections in traffic growth between the years 2001 and 2021 for Scotland and the 11 West of Scotland council areas. Nationally traffic is expected to grow by 27%, ranging in the West of Scotland from 18% in Inverclyde to 33% in North Lanarkshire. The predicted increase for Glasgow is 24%. This raises a number of concerns about future levels of pollution and road congestion, as well as questions about how sustainable such a rise in traffic growth can be.

Figure 6.19

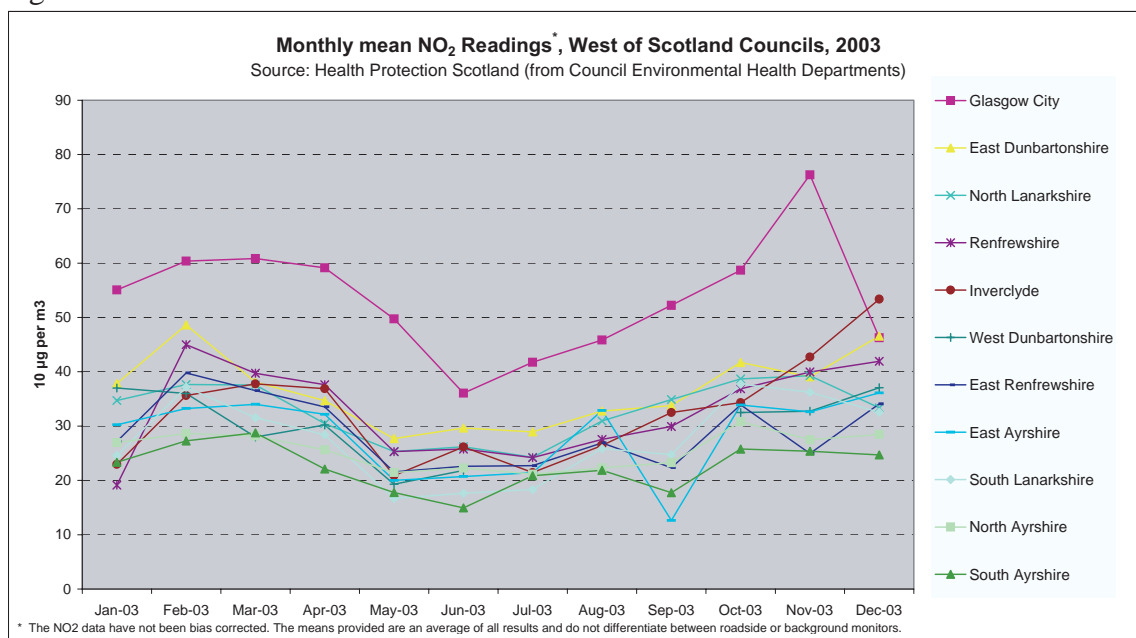


Air pollution

Recorded nitrogen dioxide (NO₂) levels provide a proxy measure of the impact of traffic pollution. Data on NO₂ are collected at recording sites and the results are presented here for West of Scotland councils. However, as with noise complaints, a number of caveats should be noted and the figures should, as a consequence, be interpreted with caution: the number and location (kerbside/roadside, intermediate, background) of recording sites varies substantially between councils and there are differences in the methods of analysis used in different laboratories^{xiii}. The figures presented should thus be interpreted with caution.

Bearing these caveats in mind, Figure 6.20 below shows that, of the 11 West of Scotland councils, Glasgow had the highest annual average recorded levels of NO₂ in 2003, while South Ayrshire had the lowest. This is not unexpected as Glasgow has the highest volumes of traffic and the most monitoring sites.

Figure 6.20



^{xiii} The differences in measurement recording used in different laboratories are usually controlled for: so-called 'bias correction'. However, the figures presented above have not been bias corrected. They are thus an average of all results and do not differentiate between roadside or background monitors.

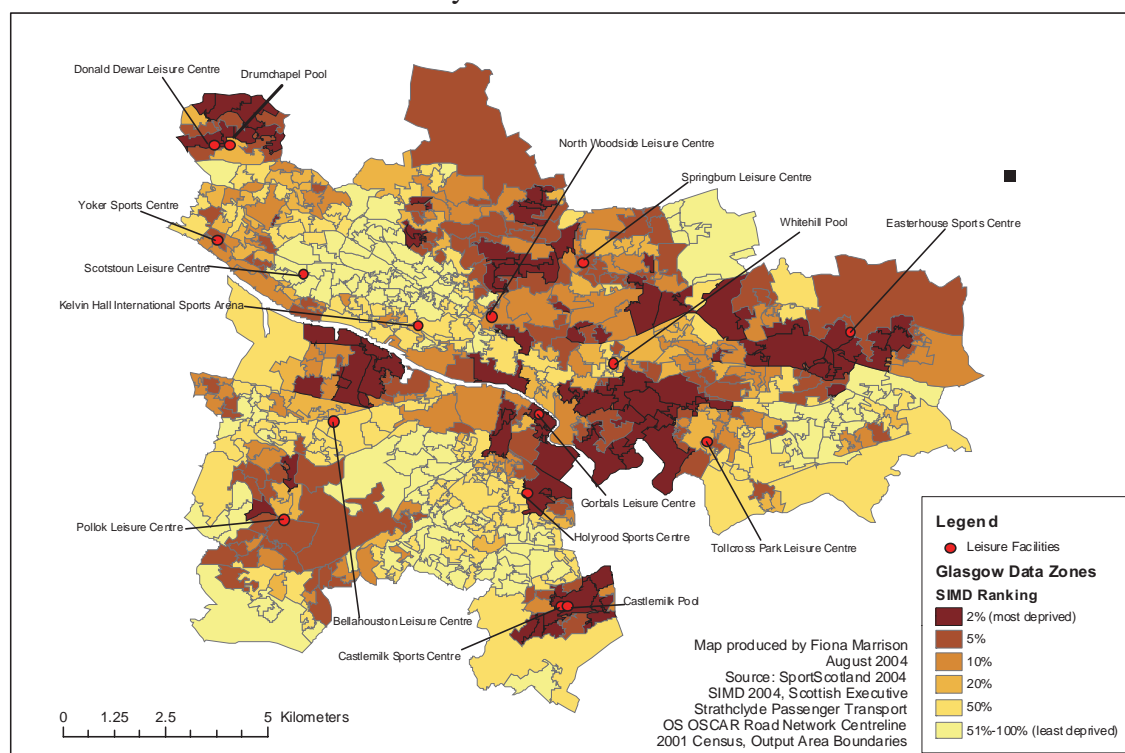
6.4 Access to services

Access to leisure services^{xiii}

A study on access to leisure services in Glasgow for non-car users was carried out in 2004 by Fiona Marrison, an MSc student in Geographical Information Systems (GIS) at the University of Edinburgh. The study examined access to the 16 multi-function local authority-owned leisure centres^{xiv} within Glasgow City in terms of public transport, acceptable walking distances and acceptable cycling distances. Such access is an important issue given the rising trend in obesity in Glasgow (see Chapter 7: Behaviour) combined with the fact that a significant proportion of the population within Glasgow, especially those under the age of eighteen or those on low incomes, are non-car users. A full copy of the dissertation is available on request and the main summary points are as follows:

- The majority of the leisure centres in Glasgow are, in fact, situated within the most deprived areas of the city. This can be seen in Figure 6.21 where the centres' locations are mapped against a backdrop of the deprivation distribution (from the SIMD) within the Glasgow City Council boundaries.

Figure 6.21 Map illustrating the extent of multiple deprivation in Glasgow, 2004, and the location of the 16 local authority owned leisure centres.

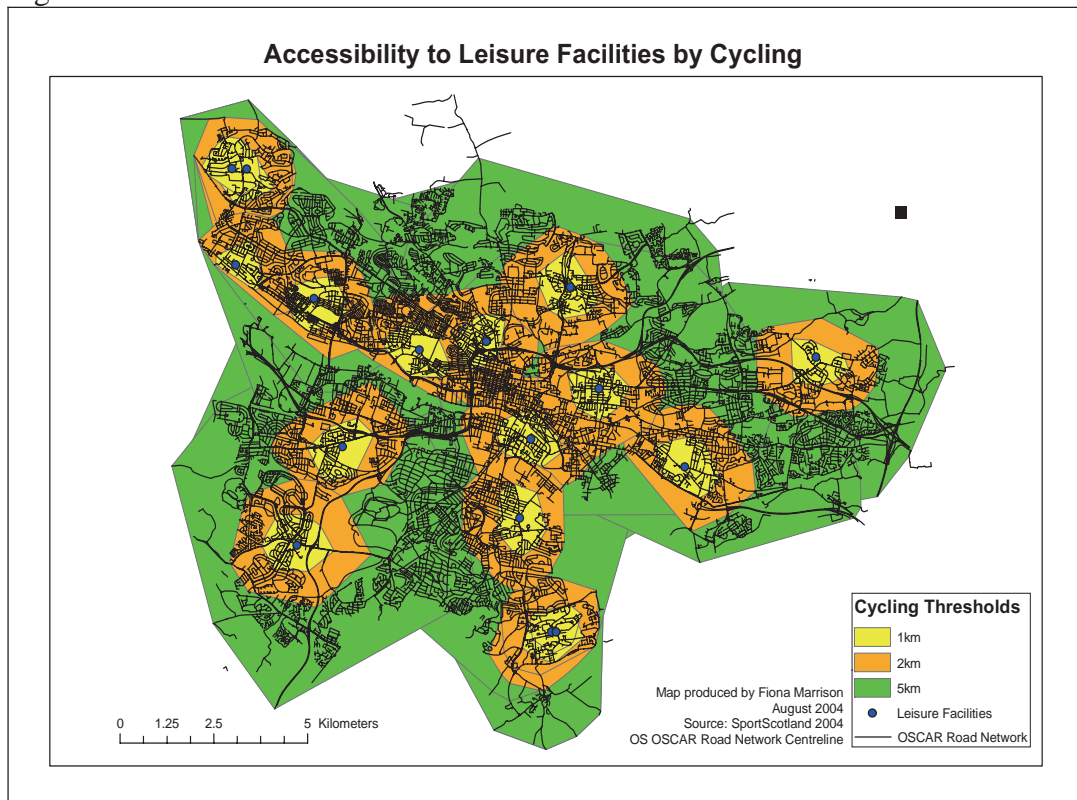


^{xiii} Note for Figures 6.21-6.26: ©Crown Copyright. All rights reserved. Glasgow City Council, 100023379, 2006.

^{xiv} There are a total of 24 local authority owned leisure facilities in Glasgow. However, the analysis was confined to those centres which offered a range of different leisure facilities (a selection of: swimming pool, health suite, sports hall, fitness suite (gym), dance hall).

- There is generally excellent access to public transport in the city: 99% of Glasgow's population live within 400m (five minutes walk) of a bus stop.
- The entire population (100%) of the city lives within 20 minutes cycling distance (the maximum 'acceptable' distance of 5km)^{xv}, ⁸ of leisure facilities. 60% live within a distance of 2km, and 21% live within 1km. This is illustrated in Figure 6.22.

Figure 6.22



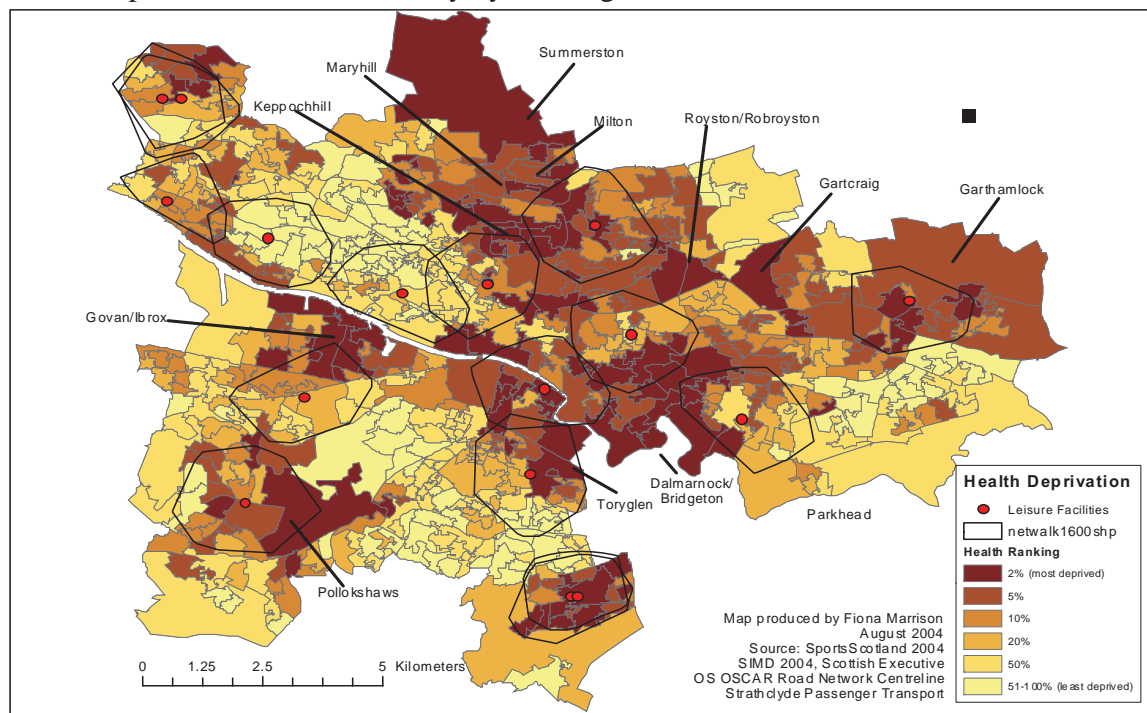
- However, it is estimated that only 45% of the total population lives within 20 minutes walking distance of a leisure facility (estimated at 1600m^{xvi}). This is well under the Scottish Executive / Sport Scotland's target for 2007 that 70% of the population should have access to leisure facilities within a 20 minute walk.⁹

^{xv} This relates to research published by the Scottish Executive which calculates the 'maximum acceptable' cycling distance to reach services as being 5km (acceptable 'short to normal' distances: 1km and 2km).

^{xvi} 1600m estimate derived from the same published research as above which also stipulated this distance as being the maximum 'acceptable' walking distance for reaching services.

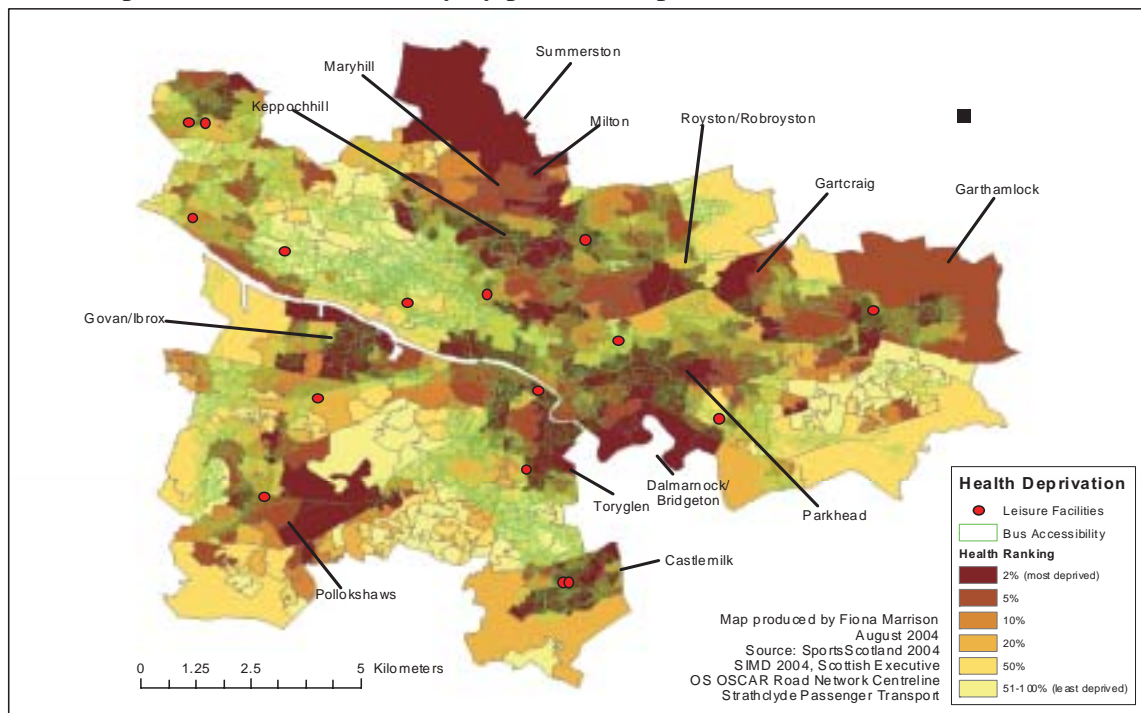
- Figure 6.23 shows walking accessibility from each leisure facility (areas within 20 minutes/1600m walk of each centre are highlighted) against a backdrop of the health deprivation domain of the SIMD. Figure 6.24 is a similar map, but shows public transport accessibility from each facility (the green lines indicate areas within five minutes walk of a bus stop^{xvii}). Together these two maps suggest that for a number of highly deprived areas in the north side of the city – e.g. Milton, Maryhill and Summerston – access to leisure facilities by public transport is very poor and, at the same time, the relevant walking distances exceed the ‘acceptable’ Scottish Executive threshold. Similarly, there are areas in the eastern side of the city (e.g. Royston, Robroyston, Gartcraig, Garthamlock, Dalmarnock, Bridgeton and Queenslie) with limited accessibility.

Figure 6.23
Health deprivation and accessibility by walking to leisure facilities



^{xvii} Glasgow City Council adheres to regional transport planning guidelines stipulating an ‘access goal’ of 400m (or five minutes walking time) to a public transport service stop; as 98% of transport service stops in Glasgow are bus stops, these were used in the analysis. Further details / references available on request.

Figure 6.24
Health deprivation and accessibility by public transport to leisure facilities



- South of the river, there are a number of highly deprived areas which, in fact, have very good levels of access to leisure centres by means of public transport, walking and cycling – for example Castlemilk and Toryglen & Hutchestown. Exceptions to this picture are apparent, however (e.g. parts of Ibrox and Govan). Although not specifically marked on the map, there is a large area north of, and including part of, Pollokshaws which has no accessible leisure centres. It should be borne in mind that Pollokshaws and Govanhill swimming pools were both located within this area but were closed in 1999 and 2001 respectively.
- Figures 6.25 and 6.26 compare car ownership levels with access to leisure services through walking (Figure 6.25) and public transport (Figure 6.26). These maps confirm that many of the areas identified above as having poor access to leisure service by means of walking or public transport also suffer from relatively low car ownership – areas such as Gortraig, Summerhill, Wallacewell and parts of Maryhill stand out in this respect.

Figure 6.25
 Car ownership levels and accessibility to leisure facilities by walking

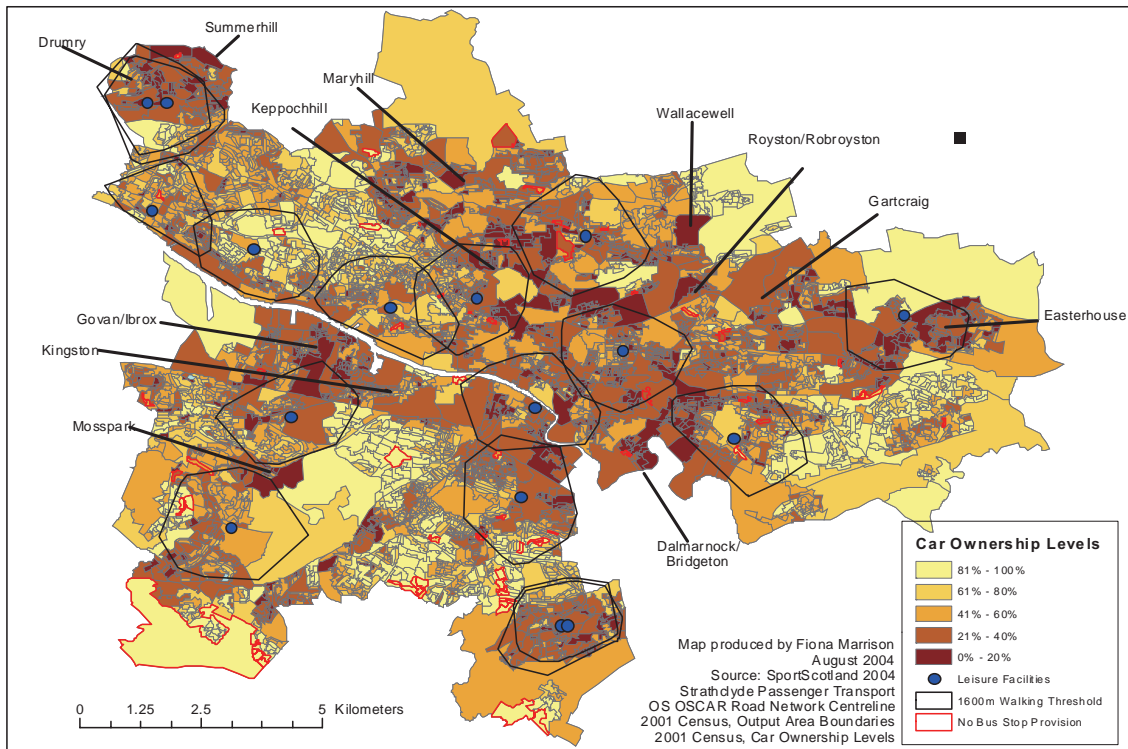
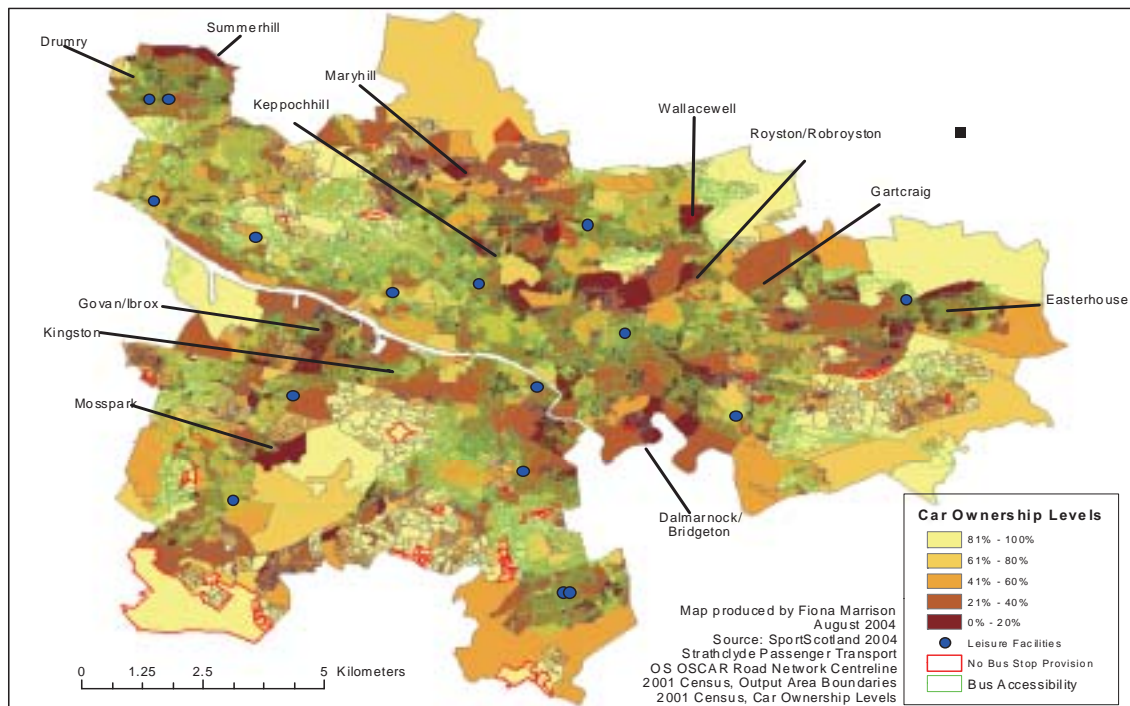


Figure 6.26
Car ownership levels and accessibility to leisure facilities by public transport



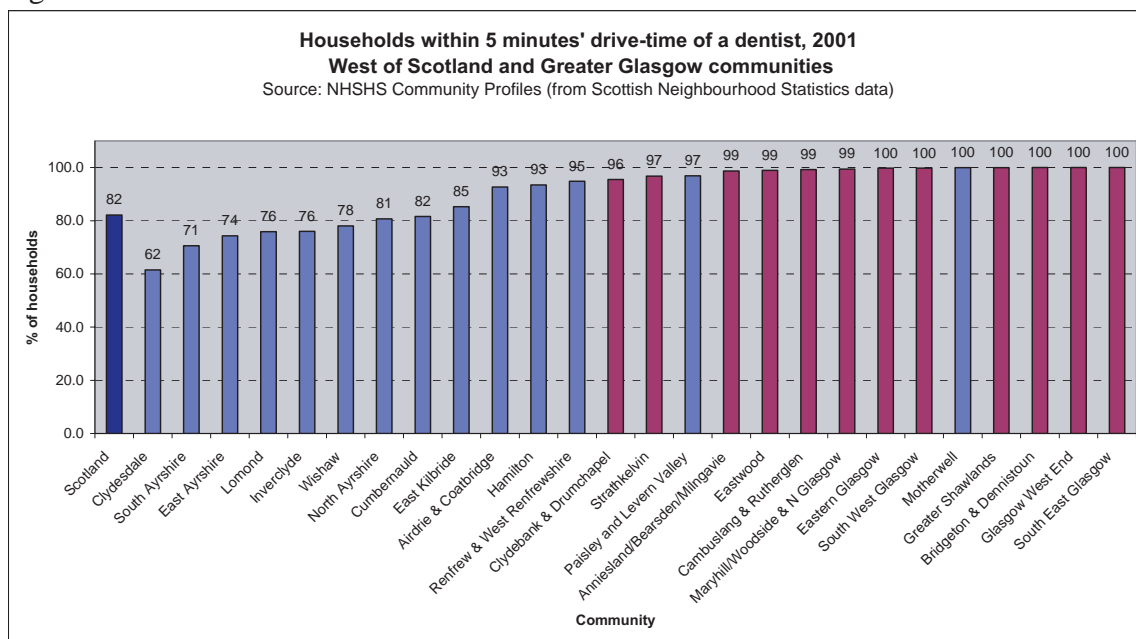
Access to health services

A less sophisticated analysis of access – measured solely by drive-time – to a range of local services was carried out in 2001/02 on behalf of the Scottish Executive’s Scottish Neighbourhood Statistics (SNS) programme¹⁰. The health services included in the analysis were general practitioners, dentists and hospitals. Note, however, that the analysis was based solely on the physical location of the services and did not take any other issues into consideration.

One illustrative example is presented here. Figure 6.27 shows, by community, the proportion of households within five minutes drive-time of a dentist. At this level, the figures range from 62% of households to 99% to 100% in the majority of the Greater Glasgow communities.

Similar data (not presented here) show that, at a West of Scotland community level, there would appear to be good access to GPs (80% or more households in each area are within five minutes drive-time of a GP) and hospitals (95%-100% are estimated to be within 30 minutes drive time).

Figure 6.27

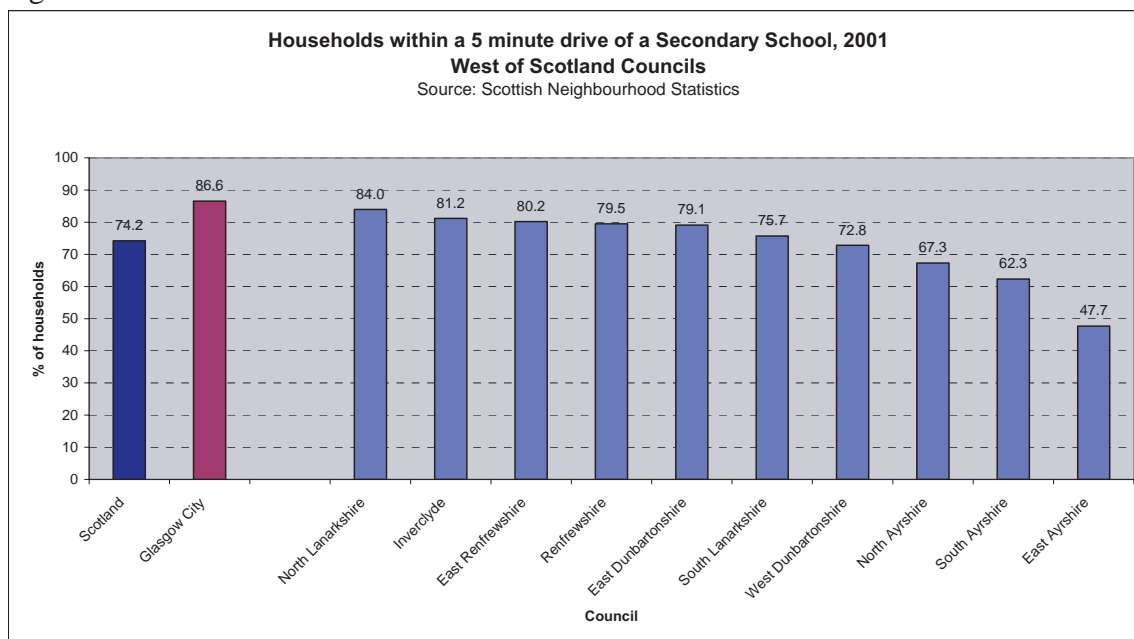


At a small area level, the vast majority of all West of Scotland postcode sectors are within easy access (at least by car) of a GP, hospital and dentist.

Access to other, non-NHS, services

Scottish Neighbourhood Statistics also provides similar data on access to other, non-NHS, services. Again, for the sake of brevity, one illustrative example is shown here. Figure 6.28 shows, by council, the percentage of all households that are within a five minute drive of a secondary school. The average figure for Scotland was 74% and across the West of Scotland councils it varied from 87% in Glasgow to 48% in East Ayrshire.

Figure 6.28



Similar education-based indicators are available from the SNS website providing estimates of drive times to Nursery School, Primary School and Further/Higher Education College. Data are also available for ‘retail services’ (e.g. drive time to post offices, petrol stations, chemists, supermarkets), and other services such as citizens advice bureaux, police stations, job centres, and libraries.

6.5 Sites of environmental concern

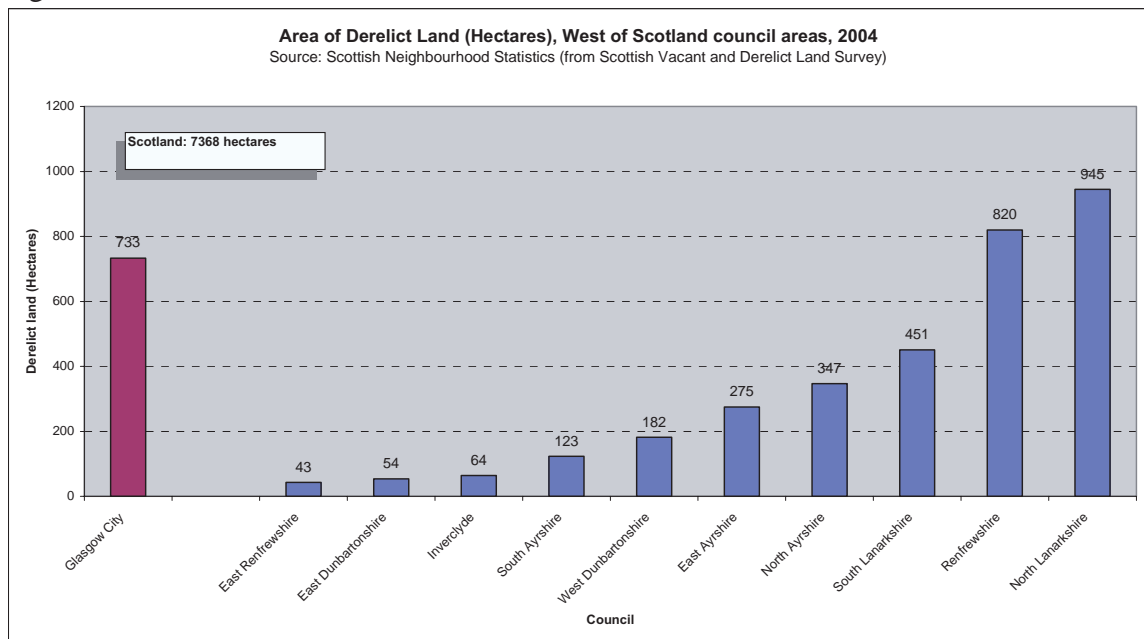
This section of the chapter looks briefly at three issues of major environmental concern: derelict land, proximity to landfill sites and proximity to areas with reported industrial pollution.

Areas of derelict land and proximity of population to derelict land

Across Scotland derelict land^{xviii} accounts for over 7,600 hectares. Among the West of Scotland councils, North Lanarkshire has the highest area of derelict land (945 hectares – 12% of the Scottish total) followed by Renfrewshire (11%) and Glasgow (10%) (Figure 6.29).

^{xviii} Derelict land (and buildings): defined as that which has been so damaged by development or use that it is incapable of being developed for beneficial use without rehabilitation, and which is not being used for either the purpose for which it is held, or for a use acceptable in a local plan.

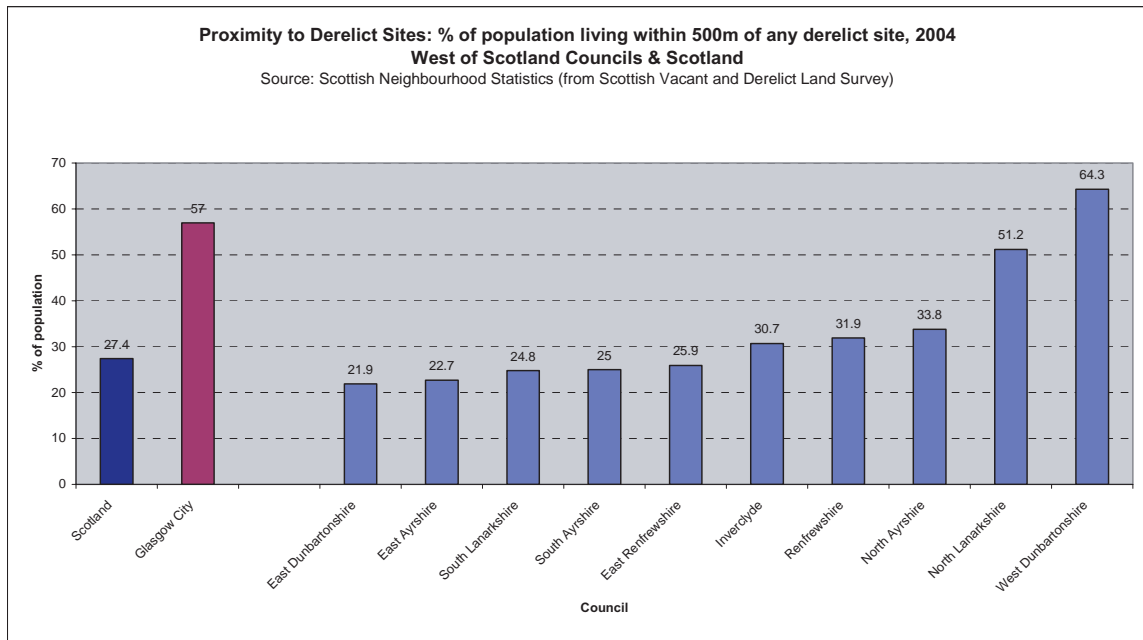
Figure 6.29



In terms of proximity, 27% of the Scottish population live within 500m of derelict land. However this percentage rises to 51% in North Lanarkshire, 57% in Glasgow and 64% in West Dunbartonshire (Figure 6.30)

A recent report produced by Fairburn *et al* on ‘environmental justice’ in Scotland¹¹, reported that there is a strong relationship between derelict land and deprivation and that “people in the most deprived areas are far more likely to be living near to (this) source of potential negative environmental impact than people in less deprived areas”. They further pointed out that both old and newly derelict sites are found in proximity to substantially greater numbers of people experiencing relative deprivation.

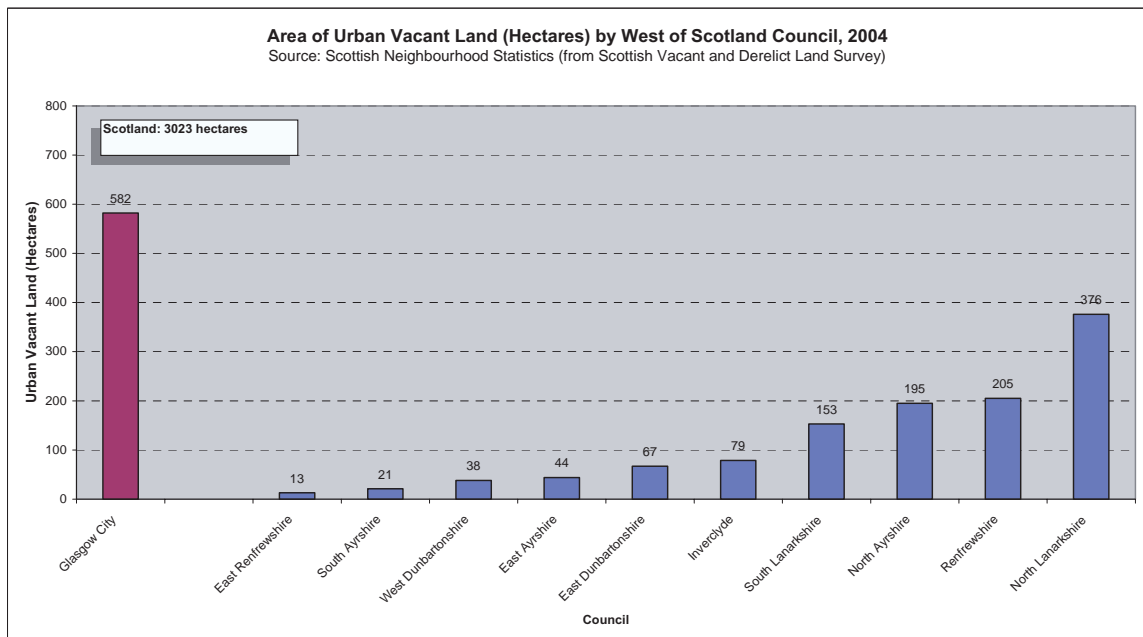
Figure 6.30



Areas of urban vacant land

In Scotland in 2004 just over 3000 hectares of land were designated as urban vacant land: land that is located in or very close to urban settlements and is unused or unsightly, or which could benefit from development or improvement. As is shown in Figure 6.31, Glasgow City boundaries incorporate 582 hectares – 19% of all land of this type in Scotland – while the North Lanarkshire council area also has a significant percentage of this type of land (376 hectares: 12% of the total).

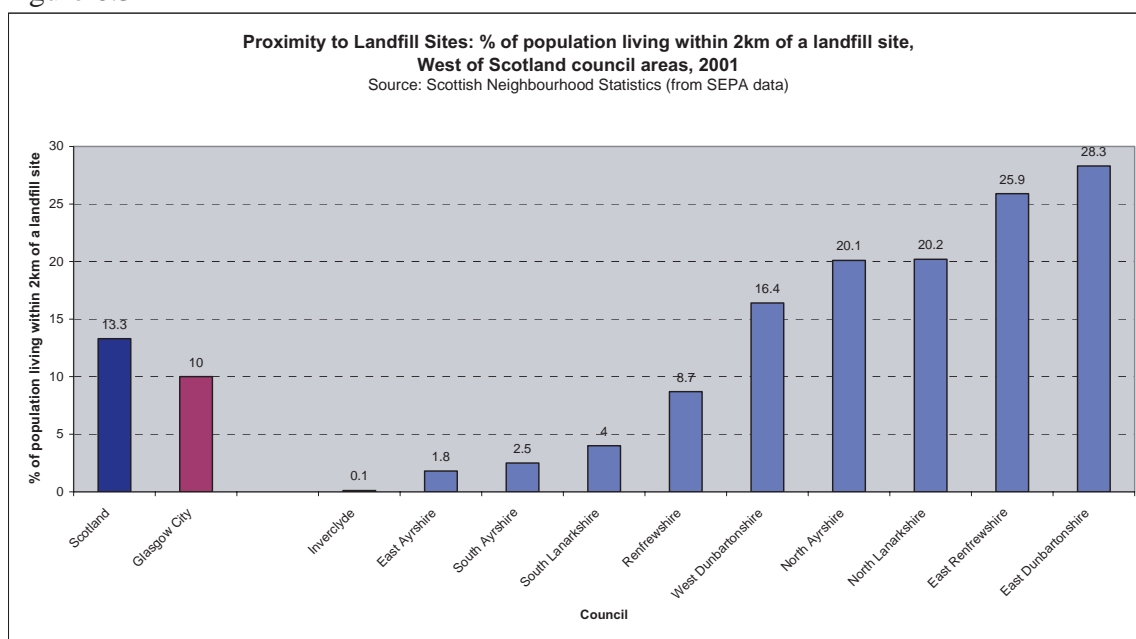
Figure 6.31



Proximity to landfill sites

Figure 6.32 shows that 13% of the Scottish population lived within two kilometres of a landfill site in 2001. Within the West of Scotland, 28% of East Dunbartonshire residents and 26% of East Renfrewshire residents lived within two kilometres of a landfill site, while in Glasgow the figure was only 10%.

Figure 6.32



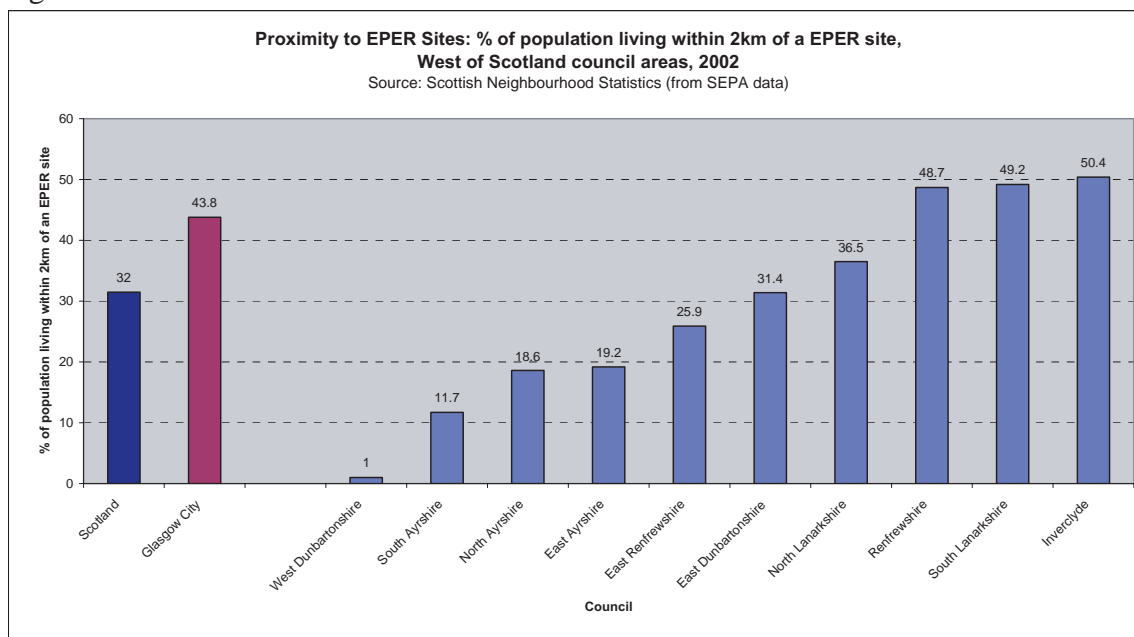
Note that this information relates only to population numbers living in proximity to a landfill site in 2001. No attempt was made to identify how many people (if any) are exposed to pollutants from these sites. To determine the specific health risks of these pollutants it would be necessary to know such factors as prevailing wind direction and the location of local watercourses¹².

The report on environmental justice by Fairburn *et al* (referred to previously) reported that patterns of relationship between deprivation and landfills were indistinct and that nationally there is no evidence to suggest that more deprived populations are more likely than others to live near to landfill sites.

Proximity to EPER sites (sites on the European Pollutant Emissions Register)

Thirty two per cent of the Scottish population lived within two kilometres of an EPER site (i.e. a site of potential industrial pollution) in 2002 (Figure 6.33). Within the West of Scotland, 50% of Inverclyde residents, 49% of South Lanarkshire and Renfrewshire residents respectively lived within two kilometres of an EPER site, while in Glasgow the figure was 44%.

Figure 6.33



Referring again to the recent environmental justice report, a clear relationship between proximity to sites of potential industrial pollution (IPPC sites^{xix}) and deprivation was established, with the highest proportion of people living in proximity to an IPPC site being found within the most deprived decile (of the SIMD). Concentrations of such sites were noted particularly in the more deprived parts of Glasgow. Clustering of multiple IPPC sites near to more deprived populations was also noted.

A few other key points from the report on environmental justice – relevant to this, and other sections, of this chapter – are summarised briefly below. It is likely that the general summary of relationships between environmental indicators and deprivation discussed in the report are applicable to Glasgow and the West of Scotland, although there may be local variation.

- Industrial pollution, derelict land and river quality were all related to deprivation with people in the most deprived areas being far more likely to be living in proximity to these sources of potential negative environmental impact.
- At a national level and for urban areas, there was no clear relationship between deprivation and population proximity to landfills, quarries and open cast sites.

^{xix} IPPC – Industrial Pollution Prevention and Control. IPPC sites are those that fall within the IPPC Directive and constitute those with the potential to contribute significant levels of polluting emissions to air, water or land. A proportion of IPPC sites are reported to the European Pollutant Emission Register (EPER).

- In terms of air quality it is clear that people living in the most deprived areas are most likely to experience the poorest air quality. This was found to be true for nitrogen dioxide, PM₁₀, benzene and carbon monoxide but not for sulphur dioxide. Those areas exceeding the nitrogen dioxide objective (annual mean) are strongly concentrated in the most deprived areas.
- People living in more deprived areas are less likely to live near woodland but there is evidence that new woodland development has been planted to a relatively greater degree in more deprived areas.
- The analysis of greenspace showed that both the least and most deprived areas in Scotland have high percentages of people living near designated local wildlife sites. A separate more detailed study in Glasgow highlighted the complex issues in assessing environmental justice in relation to greenspace.

The issue of ‘greenspace’ is discussed further in the final section of the chapter below.

6.6 Greenspace

Glasgow and Clyde Valley Green Network dataset

The importance of greenspace to health and well being has been increasingly recognised in recent years and, while it will be some time before good quality greenspace data are available across the whole of Scotland, a recent project has been instrumental in producing the first detailed categorisation of land usage in the West of Scotland. This project, jointly commissioned by Forestry Commission Scotland (FCS), Glasgow and Clyde Valley Structure Plan Joint Committee (GCVSPJC) and Scottish Natural Heritage (SNH), has produced a GIS^{xx}-based classification of land usage for the Structure Plan area. This classification divides land usage into the following broad groupings (and sub groups of): roads, water courses, railways, paths, buildings, open space^{xxi} (e.g. public parks and gardens, amenity greenspace, sports areas, woodland, other functional greenspace, etc.) and other open space (e.g. farmland, moor land). The dataset aims to provide a comprehensive and consistent mapping of open space across the main urban areas in western Scotland.

The dataset has only recently been produced and requires further quality assurance. There are currently no concrete examples of its use, but clearly it will be a valuable resource for planners, particularly for the purposes of regeneration and redesign of urban land.

Figure 6.34 illustrates this greenspace data on a map stretching from the west end to the east end of Glasgow.

^{xx} Geographical Information System.

^{xxi} Based on a modified version of the Scottish Executive’s PAN65 open space typology – further details are included in Appendix 1.

Figure 6.34



Summary

This chapter highlights a number of important issues relevant to the health of the people of Glasgow and the West of Scotland:

- There have been major improvements in housing in Glasgow and the West of Scotland in recent decades. However, serious issues concerning the living conditions of considerable numbers of the population remain. For example an estimated 30,000 households in Glasgow have evidence of mould, and 20,000 properties have rising/penetrating damp.
- There has been a striking decrease in the proportion of the population living in overcrowded conditions, but equally striking variations in the levels of overcrowding across the West of Scotland are still evident. Similarly, rates of owner-occupancy have changed considerably over the past two decades (doubling between 1981 and 2001) – again, however, considerable variations persist.
- Data collected by the Keep Scotland Beautiful organisation highlight a number of environmental issues for many parts of the West of Scotland. Glasgow stands out with the highest proportion of areas in the city deemed as unacceptably littered. There are also concerns around the levels of, for example, dog fouling.
- Unsurprisingly, such environmental concerns are also highlighted as issues by residents of Glasgow in terms of their perceptions of their neighbourhood. A number of problems are emphasised, both environmental (e.g. dog dirt, traffic) and behavioural (e.g. young people hanging around, drink and drug activities). These issues are more likely to be perceived as problems in the more deprived parts of the city.
- Concern over traffic levels are well-founded. Traffic volume has increased year on year in the West of Scotland in recent times and it is projected to grow further in the next two decades (with almost a 25% rise in Glasgow predicted by 2021).
- Glasgow's more deprived areas are relatively well served by the Council in terms of accessibility to leisure centres. However, areas have been identified where access is a major problem.
- Significant proportions of the population of Glasgow and the West of Scotland live in proximity to derelict land, landfill sites and sites emitting industrial pollution.

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- ¹² Scottish Neighbourhood Statistics
<http://www.sns.gov.uk>

Summary

Alcohol is a major cause for concern. There are estimated to be more than 13,500 'problem alcohol users' resident within Glasgow City, and since the beginning of the 1990s, there has been a striking increase in numbers of alcohol related deaths and hospitalisations within the Greater Glasgow area.

Levels of obesity are rising, and in Greater Glasgow one fifth of males and almost a quarter of females are now estimated to be obese, with well over half classified as overweight.

Recent years have also seen notable increases in recorded rates of sexually transmitted infections in Greater Glasgow (and elsewhere).

Drug related deaths in Greater Glasgow are also rising, and there are estimated to be approximately 25,000 problem drug users in the West of Scotland (of whom more than 11,000 live in Glasgow).

Smoking levels are falling. However, profound inequalities in prevalence persist.

Survey data suggest more people in Greater Glasgow are taking regular exercise, especially in some of the more deprived areas.

"Since the beginning of the 1990s there has been a striking increase in numbers of alcohol related deaths and hospitalisations within both Scotland and the Greater Glasgow area."

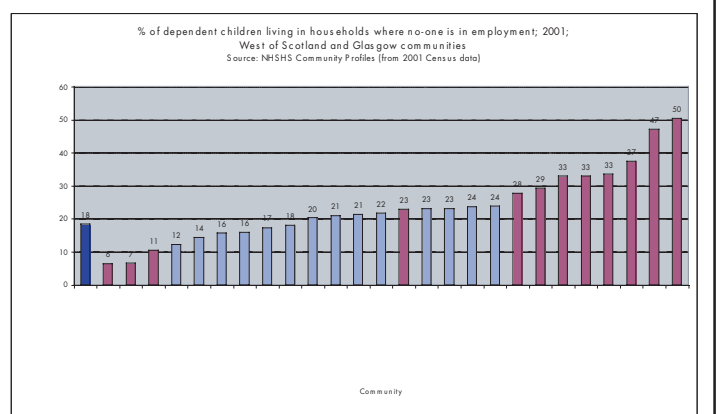
"A fifth of males and almost a quarter of females in Greater Glasgow are now estimated to be obese, with well over half classified as overweight."

"As is the case nationally, smoking rates in Glasgow have fallen considerably in the last thirty years."

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 7: Behaviour

This chapter summarises current trends in a selection of health related behaviours among the population of Glasgow and the West of Scotland. As with other chapters, it is not – and cannot be – a comprehensive list of all the factors relevant to this topic, but it attempts to cover what most would agree are the key issues. These are (in no particular order): alcohol, drugs misuse, smoking, obesity, diet, oral health, sexual health, and physical activity.

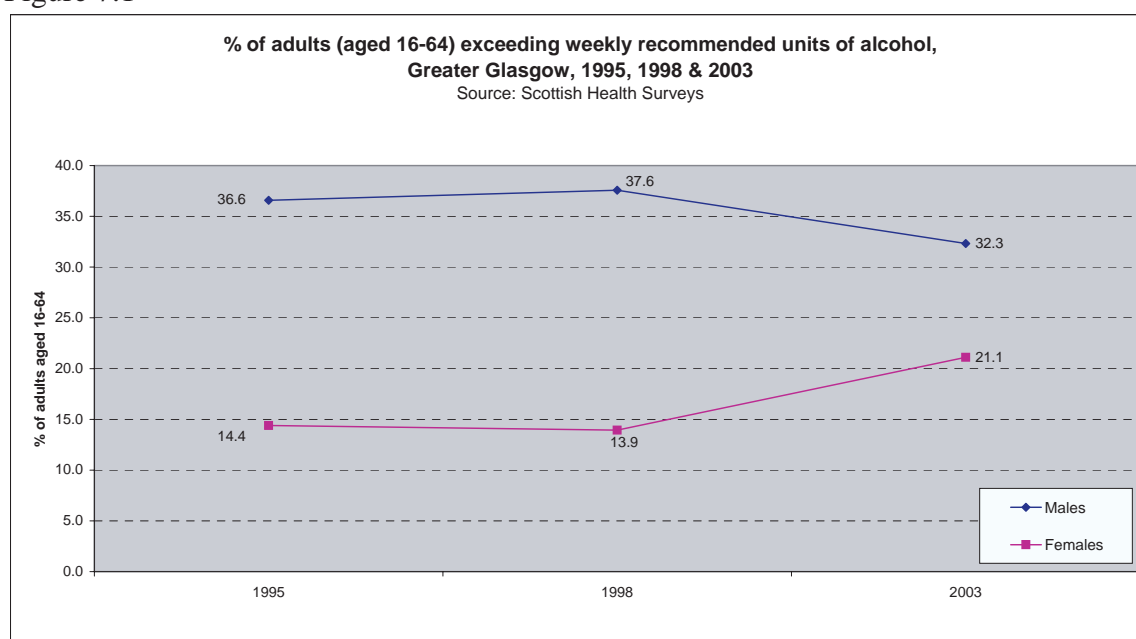
7.1 Alcohol

Alcohol consumption

It is notoriously difficult to determine levels of alcohol consumption within communities accurately. However, the most recent data available (from the 2003 Scottish Health Survey) suggest that approximately 24% of adults (ages 16+) in Greater Glasgow (32% of males, 17% of females) were exceeding the recommended weekly limitsⁱ. These are higher than the overall figures for Scotland (20% overall, 27% of males, 14% of females).

Restricting the age group to 16-64 only, we can show a trend in excess alcohol consumption from the 1995, 1998 and 2003 surveys. Overall levels in Greater Glasgow have increased slightly (from 24% to 27%), but as Figure 7.1 shows, the survey suggests a decrease in consumption among males, and an increase among females.

Figure 7.1

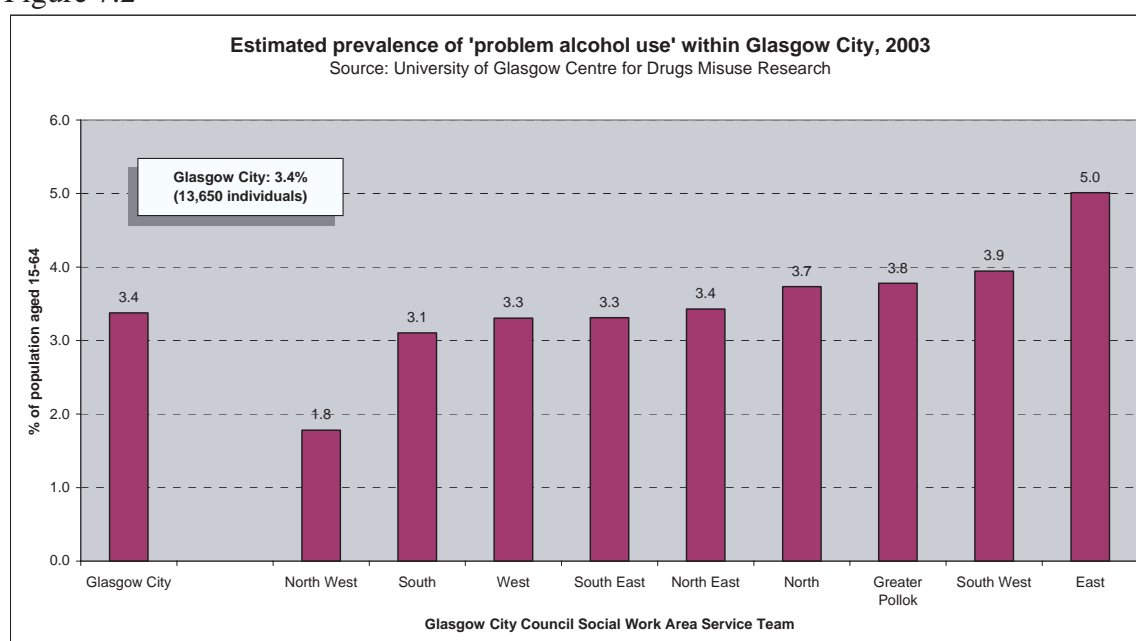


ⁱ 21 units per week for males; 14 units per week for females.

Problem alcohol use

Estimates of the number of ‘problem alcohol users’ within Glasgow City have been calculated by the Centre for Drugs Misuse at Glasgow University as part of a report on children affected by parental substance misuse in Glasgowⁱ (this is discussed in more detail in Chapter 9: Children and adolescents). The authors calculate that more than 13,500 such users are resident within Glasgow, approximately 80% of whom are male. The breakdown of numbers (presented as a percentage of the population aged 15-64) in each Glasgow City Council Social Work Area Service Team areaⁱⁱ is shown in Figure 7.2. However, it should be emphasised that these figures are statistically modelled estimates and, given the lack of any accurate data on prevalence of problem alcohol use in Glasgow (as acknowledged by the report’s authors), it is extremely difficult to gauge the accuracy of these findings.

Figure 7.2



Drunk-driving

Approximately 4,500 drunk-driving offences were recorded in the West of Scotland in 2003, of which over one third (1,666) took place within the Glasgow City Council area. As a rate per head of population, Glasgow has the highest recorded rates of drunk-driving offences in the West of Scotland: 3.6 per 1,000 population, compared to the national figure of 2.9 and a rate of 2.7 for all the West of Scotland council areas (Figure 7.3) (although clearly a proportion of offences recorded in Glasgow may relate to residents of other areas). As detailed in the subsequent chart (Figure 7.4), trends over the past five years have been relatively flat.

ⁱⁱ Areas with an average population of around 65,000 (ranging from just under 35,000 to over 94,000).

Figure 7.3

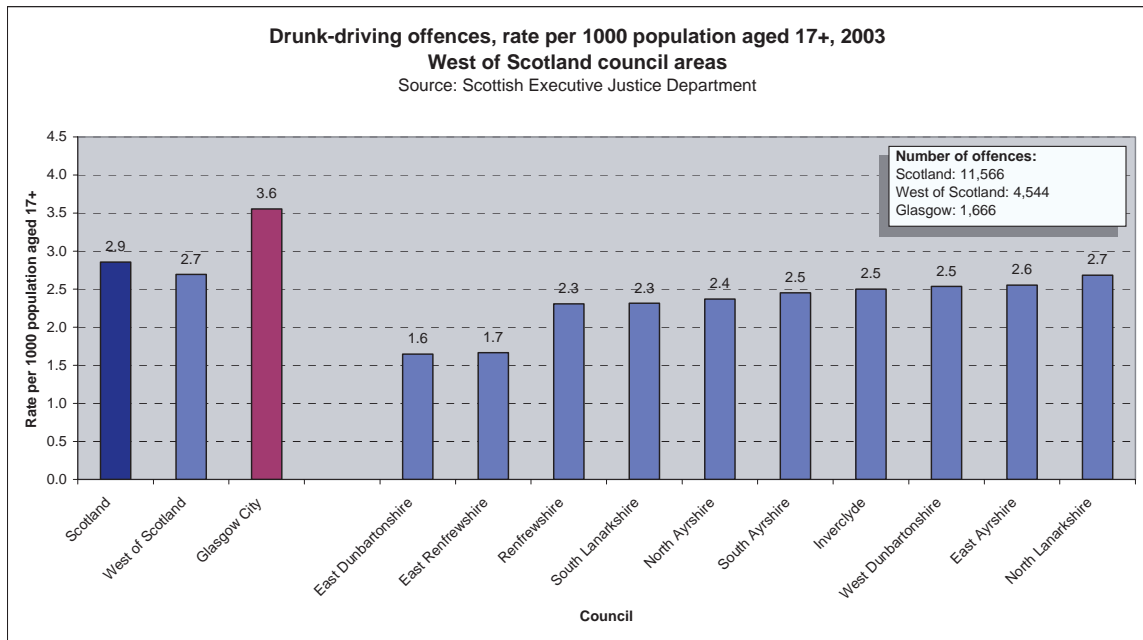
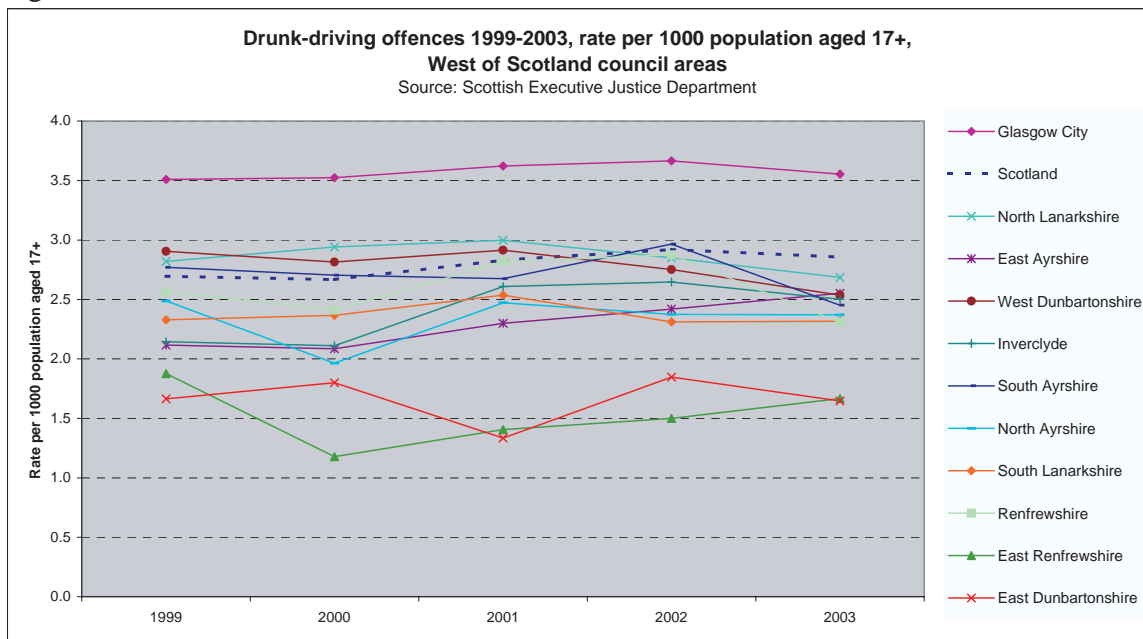


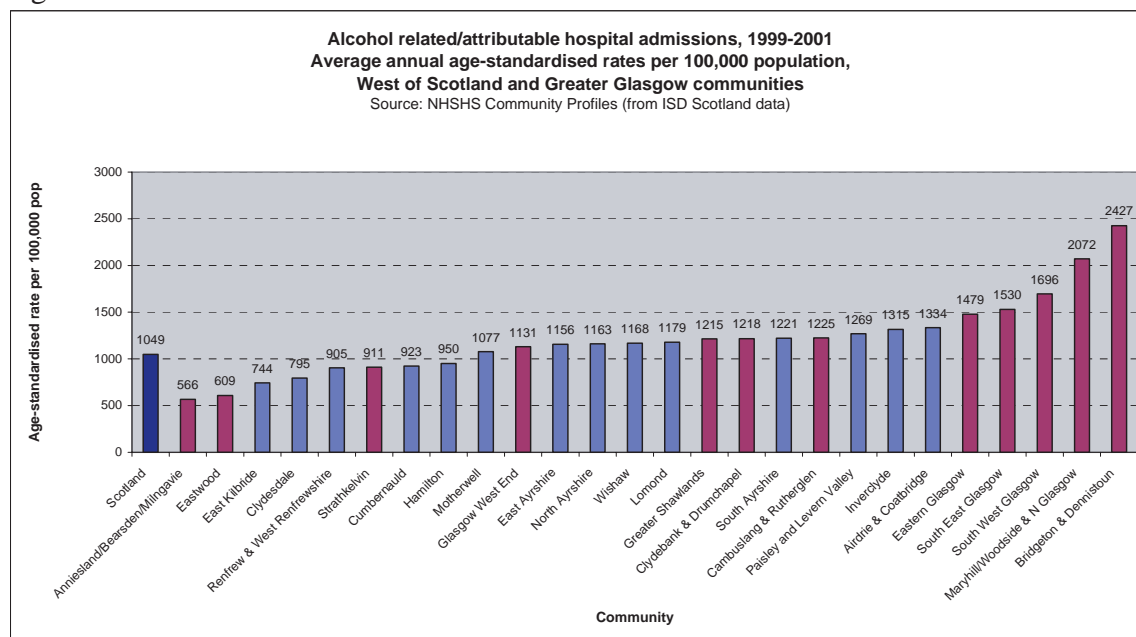
Figure 7.4



Alcohol related / attributable hospitalisations

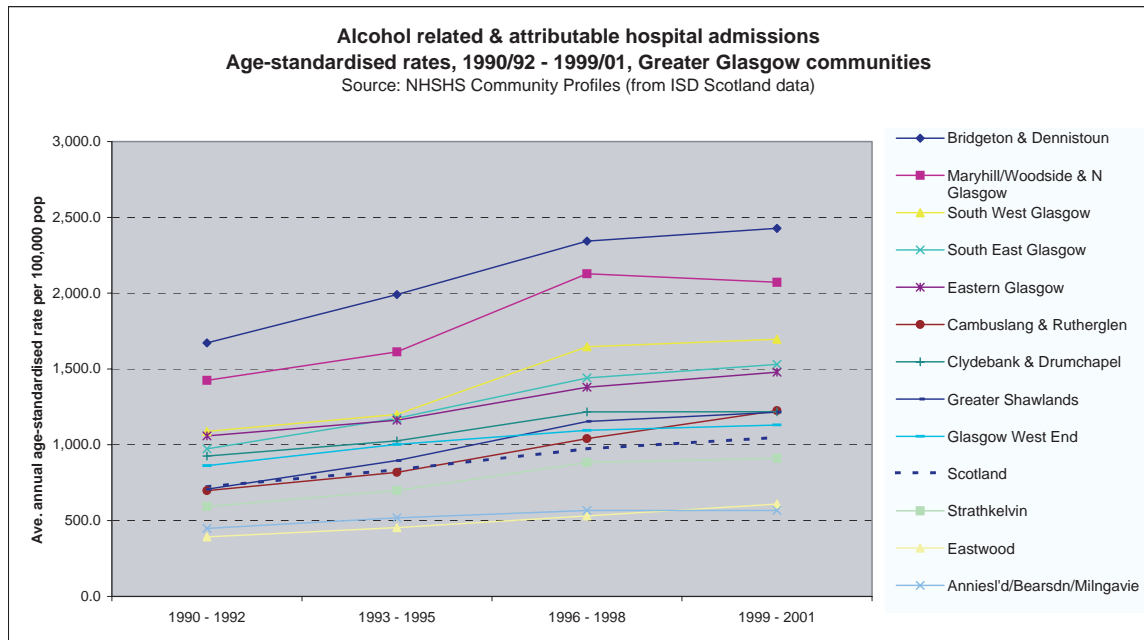
Figure 7.5 shows that the alcohol related and attributable hospitalisation rate of the majority of the West of Scotland and Greater Glasgow ‘communities’^{iii, 2} in the period 1999-2001 exceeded the national figure, and that the rate in Bridgeton & Dennistoun (the area with the highest recorded figures) was more than twice the national rate and more than four times the level recorded in Anniesland, Bearsden & Milngavie. The figure for Scotland increased by almost 50% between 1990/92 and 1999/01. Figure 7.6 shows that this rate of increase is generally matched, and in some cases exceeded, by that of the Greater Glasgow communities.

Figure 7.5



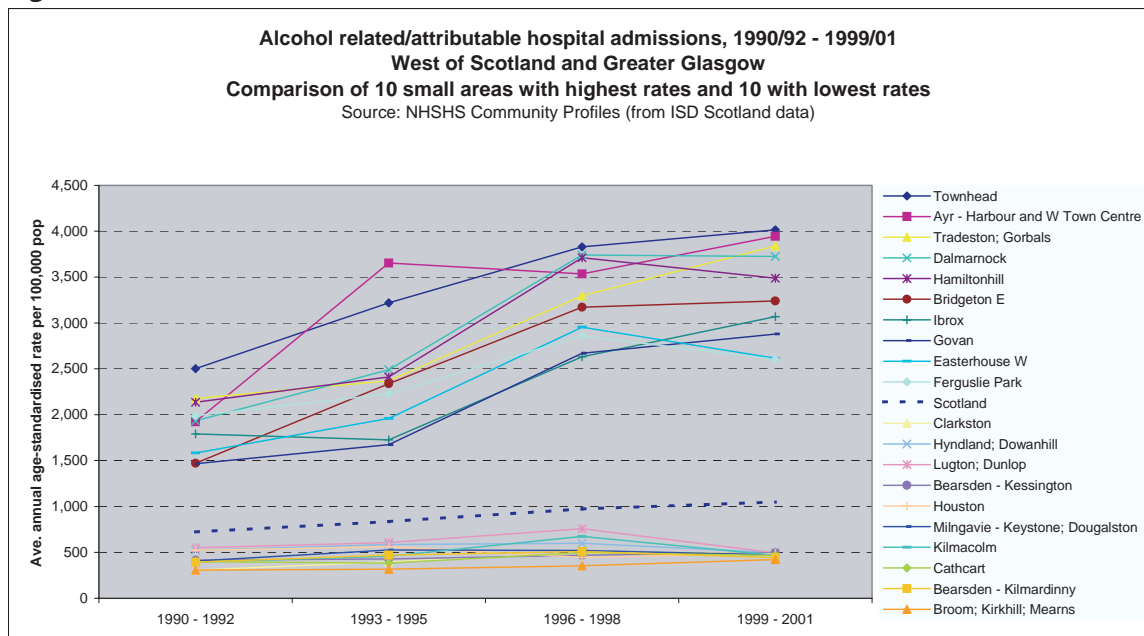
ⁱⁱⁱ These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see ‘Preface to Chapters 2-12’.

Figure 7.6



Furthermore, at a small-area level, differences in rates of increase between areas in Greater Glasgow/West of Scotland with the lowest rates of hospitalisation and those with the highest are even more striking. This is shown in Figure 7.7 where a widening gap between the two sets of areas is also visible. (Note, however, that 95% confidence intervals are not shown on this graph, many of which will be overlapping at the postcode sector level given the relatively small populations involved.)

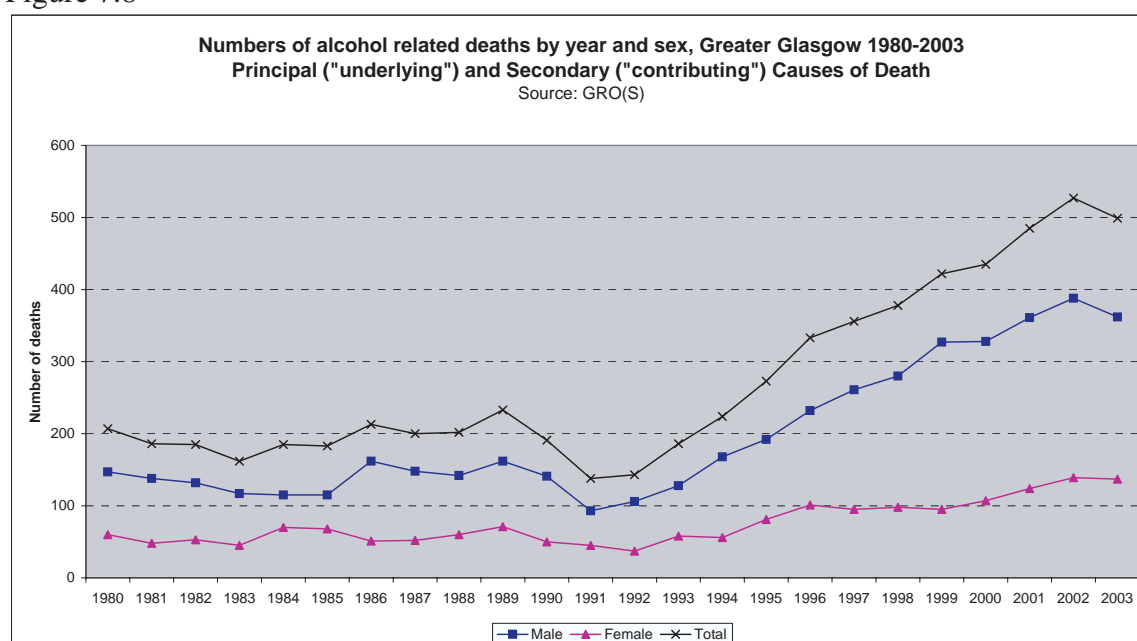
Figure 7.7



Alcohol related mortality

Figure 7.8 shows the number of alcohol related deaths for the Greater Glasgow area between 1980 and 2003. The overall number of deaths for this cause remained reasonably constant throughout the 1980s, but increased strikingly in the subsequent decade with a four-fold increase evident between 1991 and 2002. This is principally due to the increase in deaths among men, although it should be noted that the number of female deaths also more than doubled over the period shown.

Figure 7.8



In 1980 alcohol related deaths in Greater Glasgow accounted for just 2% of all male deaths in the area, and 4.6% of all male premature (age <65) deaths. By 2003, these figures had risen to 7% and 17% respectively. Further details of causes of premature death in Glasgow and the West of Scotland are presented in Chapter 11: Illness and disease.

Liver cirrhosis

Looking at one subset of alcohol related mortality – liver cirrhosis – Figure 7.9 presents mortality rates from this cause for Greater Glasgow, and Scotland, in a European context (the green trend lines represent the minimum, maximum and mean values in each year for 16 Western European countries^{iv}).

^{iv} Austria, Denmark, Finland, France, Germany, Ireland, Italy, N. Ireland, Netherlands, Norway, Portugal, Scotland, Spain, Sweden, Switzerland, England & Wales. Other relevant definitions are detailed in Appendix 1.

Figure 7.9



This shows that, in a European context, cirrhosis mortality rates in Greater Glasgow in the 1970s and 1980s were consistently at, or below, the European average; between 1990 and 2001, however, mortality increased sharply to a level far in excess of both the European average and maximum values.

This information is considered further at the end of this chapter.

7.2 Drugs misuse

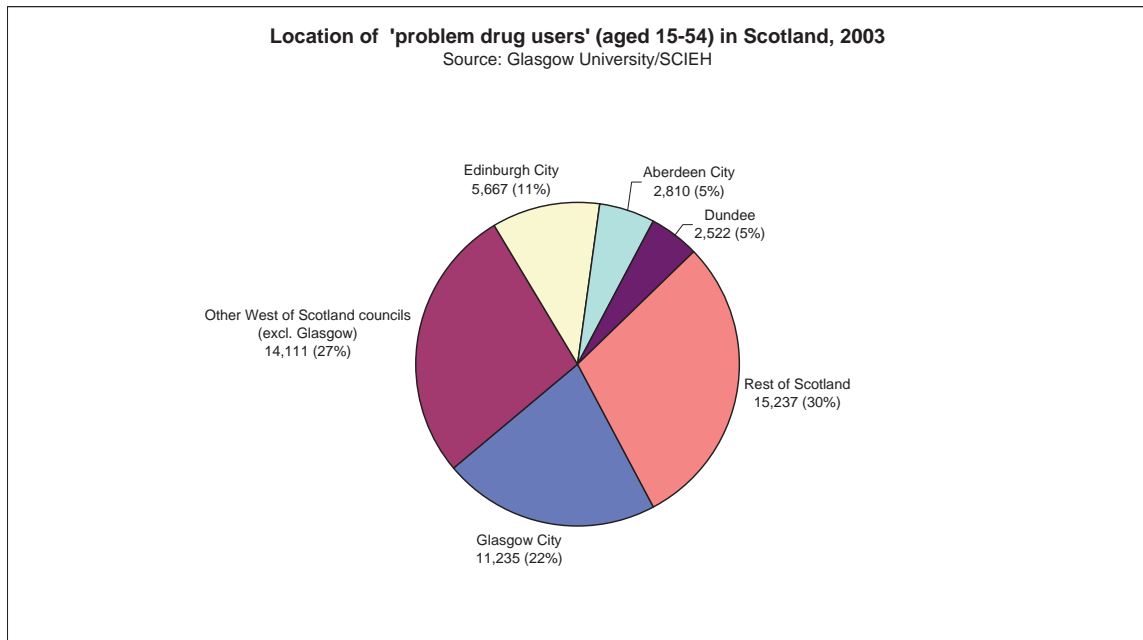
Drugs misuse prevalence

Analyses carried out by Glasgow University Centre for Drugs Misuse Research and the Scottish Centre for Infection and Environmental Health^v calculated that in 2003 there were an estimated 51,500 'problem drug users'^{vi} between the ages of 15 and 54 in Scotland³. Of these, almost half were resident in the West of Scotland, with over 11,200 living in Glasgow (Figure 7.10).

^v Now renamed NHS Health Protection Scotland.

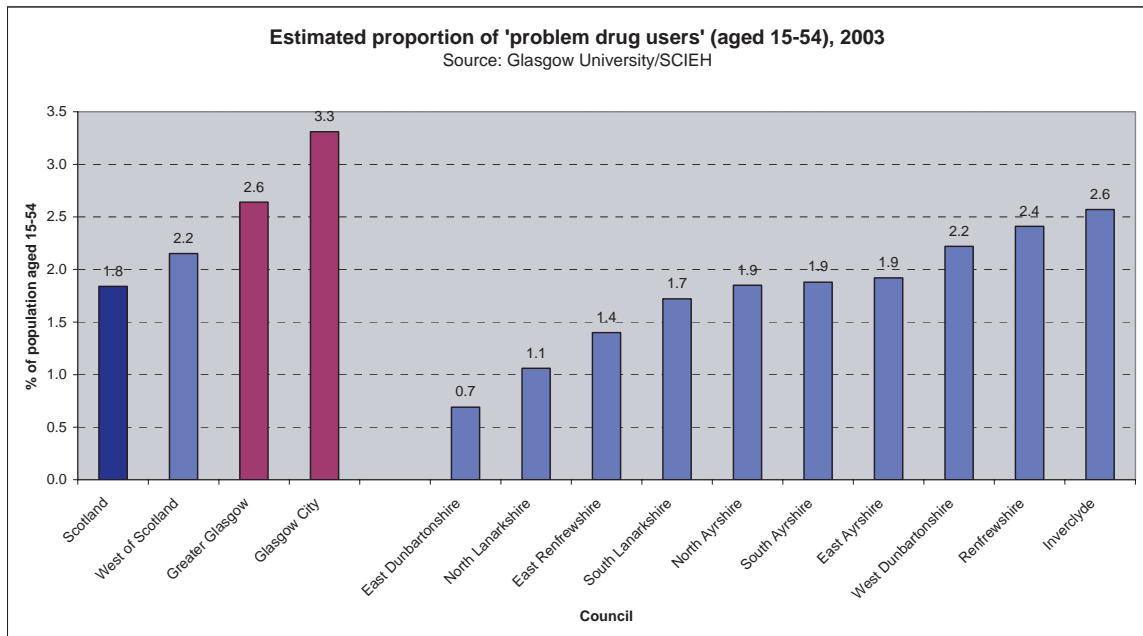
^{vi} Defined as individuals 'misusing opiates or benzodiazepines'.

Figure 7.10



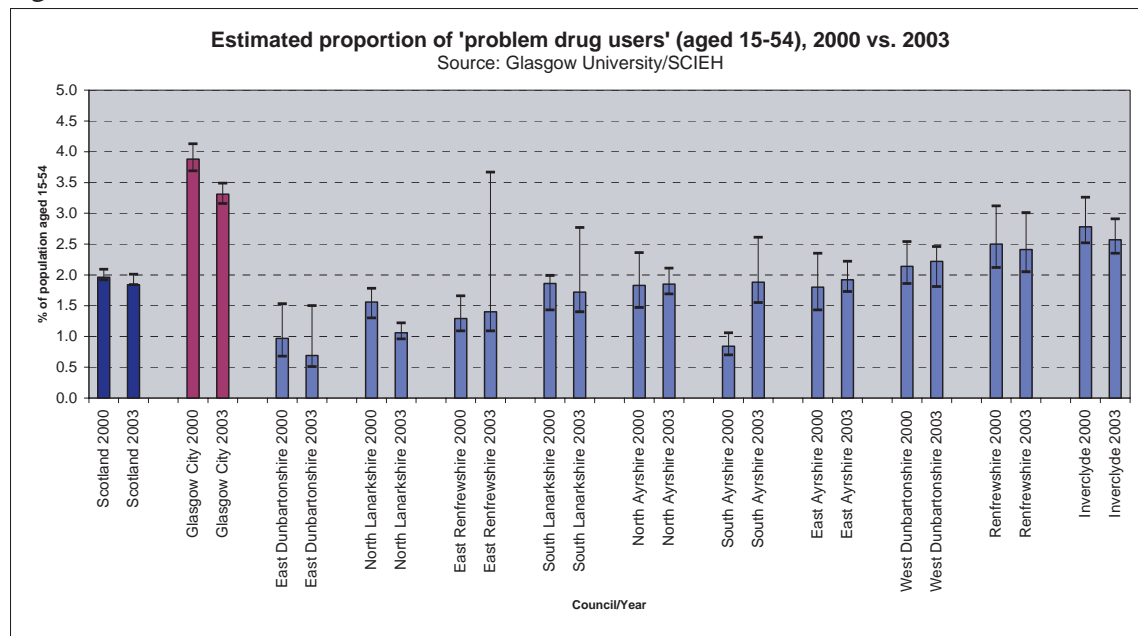
Proportionally, Glasgow City has the highest level of problem drug users among the West of Scotland council areas (over 3% of 15-54 year olds), with East Dunbartonshire the council with the lowest (0.7%). This is illustrated in Figure 7.11.

Figure 7.11



In terms of trends, there was no significant change in problem drug use prevalence in Scotland between 2000 and 2003. However, rates in three of the West of Scotland councils did change significantly: Glasgow (where rates decreased from 3.9% to 3.3% – a 15% decrease), North Lanarkshire (32% decrease), and South Ayrshire (124% increase). This is shown (with 95% confidence intervals) in Figure 7.12.

Figure 7.12

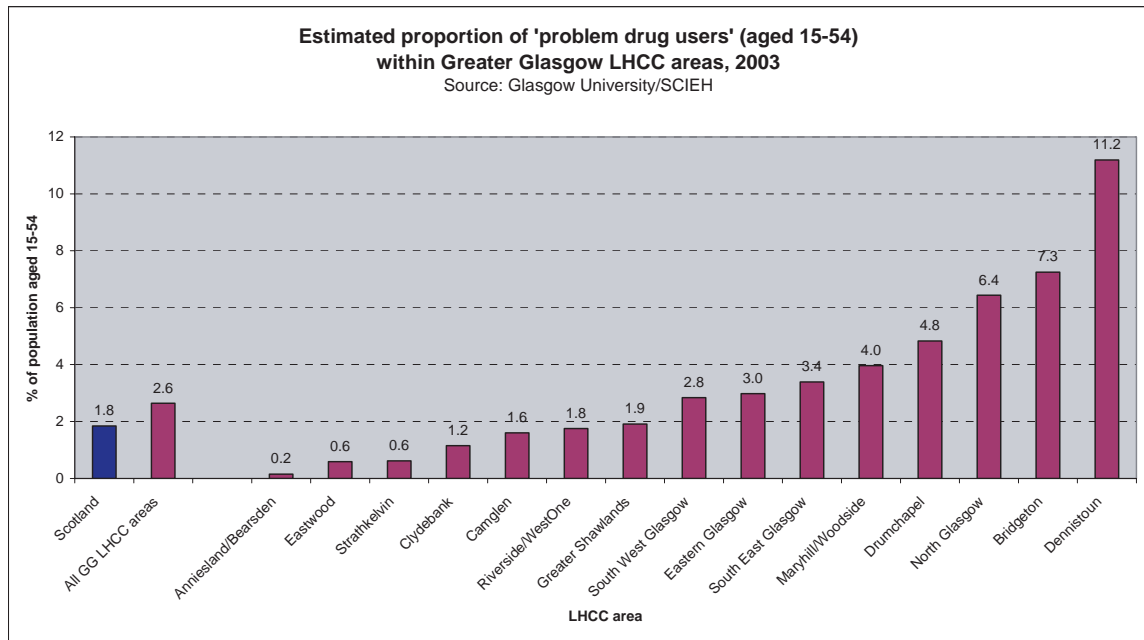


Within Greater Glasgow, there is more than seventy fold variation between the estimated drug misuse prevalence rates in the LHCC^{vii} area with the lowest rates, Anniesland & Bearsden (0.15 per 100 population aged 15-54), and the area with the highest, Dennistoun (11.2 per 100). This is shown in Figure 7.13 (but note that these are again modelled estimates and the figures should therefore be interpreted with caution^{viii}).

^{vii} Local Health Care Cooperative. LHCCs have now been replaced by the new Community Health Partnerships (CHPs) (Community Health and Care Partnerships (CHCPs) within Glasgow).

^{viii} The report authors note that the prevalence estimate for Glasgow is “more reliable and robust than the estimates for the smaller LHCC areas”. It should also be noted that the estimates at LHCC level were based on aggregations of data at the postcode district level (e.g. G31) – thus the definition of an LHCC area may differ considerably from recognised LHCC boundaries.

Figure 7.13



Drugs related deaths

Between 1997 and 2001 there were 765 drugs related deaths in the West of Scotland, of which 459 (60%) related to residents of Greater Glasgow communities. Figure 7.14 shows the total five year figure, expressed as a crude rate per 100,000 population, for West of Scotland communities: Bridgeton & Dennistoun clearly stands out with more than seven times the national rate.

Figure 7.14

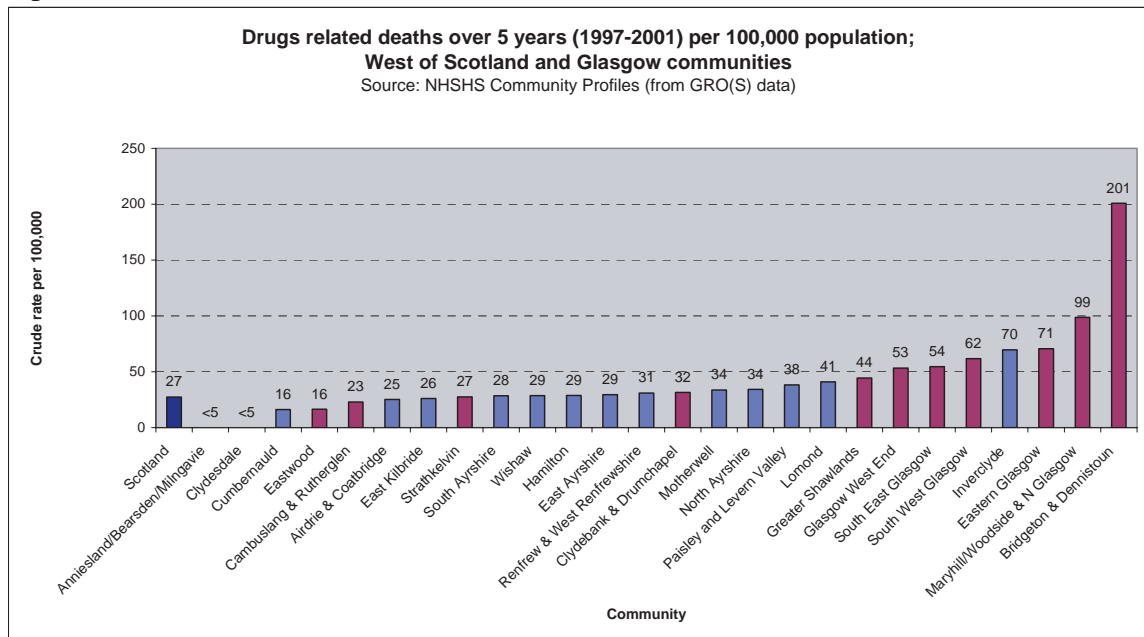
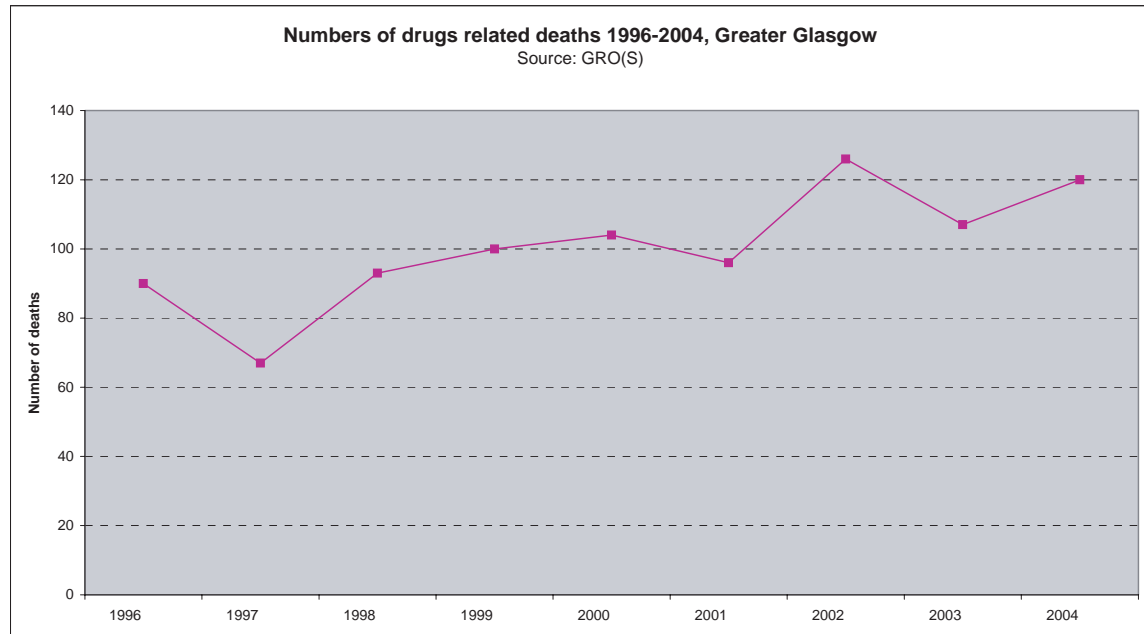


Figure 7.15 shows the total number of drugs related deaths by year between 1996 and 2004, for the Greater Glasgow area. The numbers have risen by a third over the period, although there has been some year-on-year fluctuation within that overall trend.

Figure 7.15

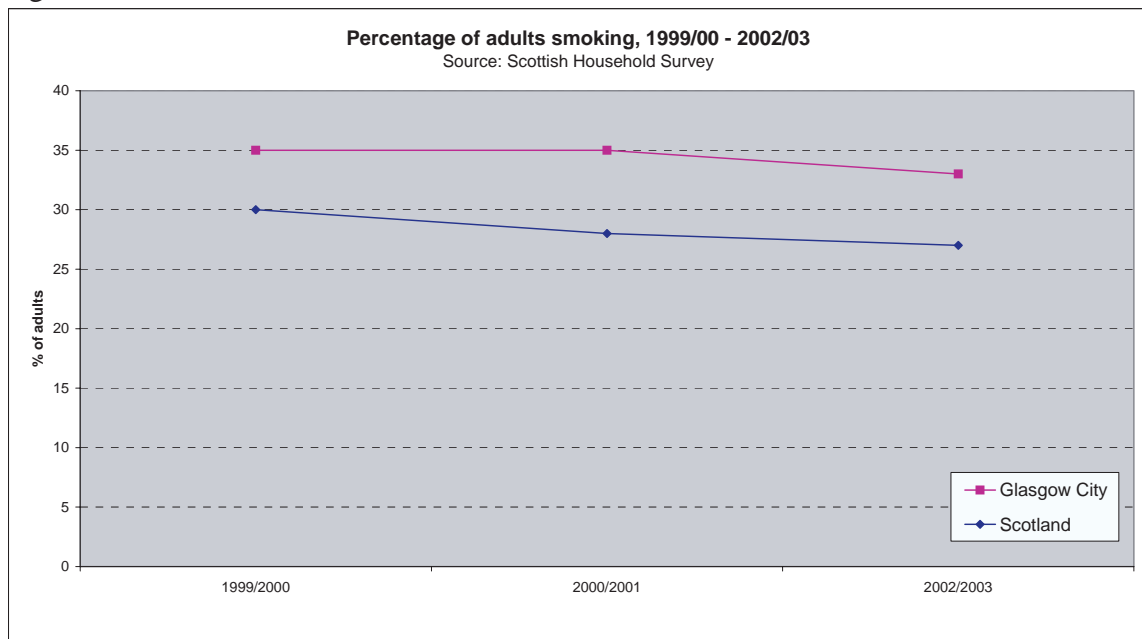


7.3 Smoking

Smoking prevalence

Unfortunately, no long term trend in smoking prevalence in Glasgow is available. However, we know that, as is the case nationally, adult smoking rates have fallen considerably in the last thirty years. Figure 7.16 shows that the current rate in Glasgow (from the 2003/04 Scottish Household Survey) is about 33% for adults (aged 16+). This exceeds the national figure of 27%, but represents a slight fall since the 1999/2000 survey.

Figure 7.16

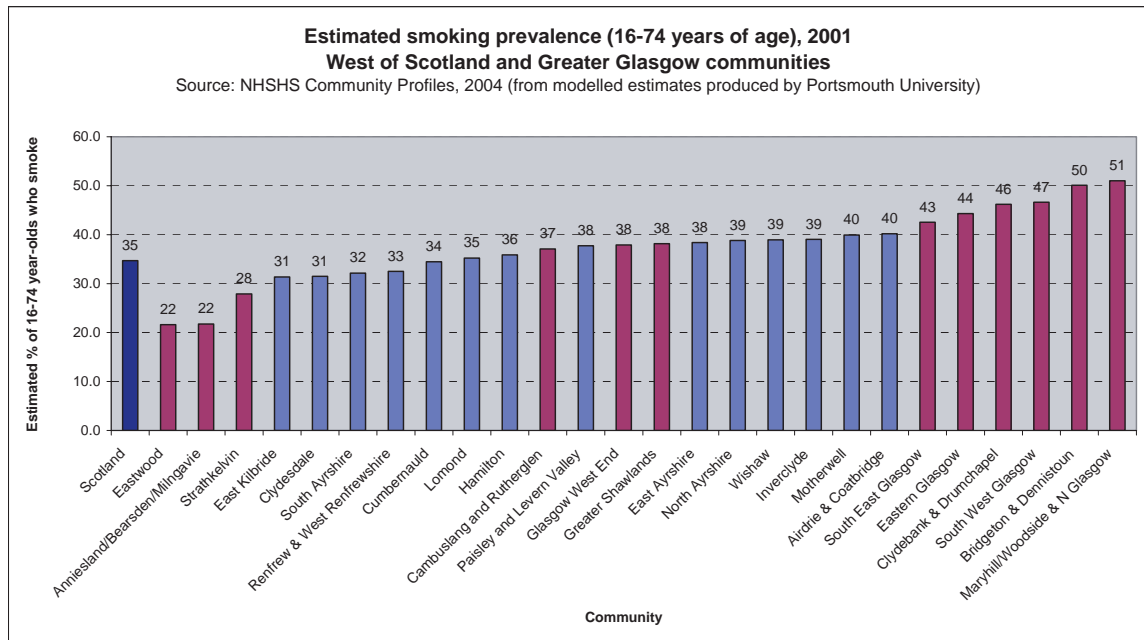


To look at how current smoking prevalence varies within Greater Glasgow and the West of Scotland we can use the modelled estimates produced by Portsmouth University for NHS Health Scotland (and used in the Community Profiles). Again, as with all modelled estimates, the accuracy is uncertain. Nevertheless, the relative variations in smoking prevalence between different areas are likely to be reasonably robust^{ix}.

Figure 7.17 shows that Eastwood and Anniesland, Bearsden & Milngavie are the communities which have the lowest estimated smoking prevalence (22%), while the estimated prevalence of smoking is double this in four other Greater Glasgow communities – Clydebank & Drumchapel, South West Glasgow, Bridgeton & Dennistoun and Maryhill, Woodside & North Glasgow.

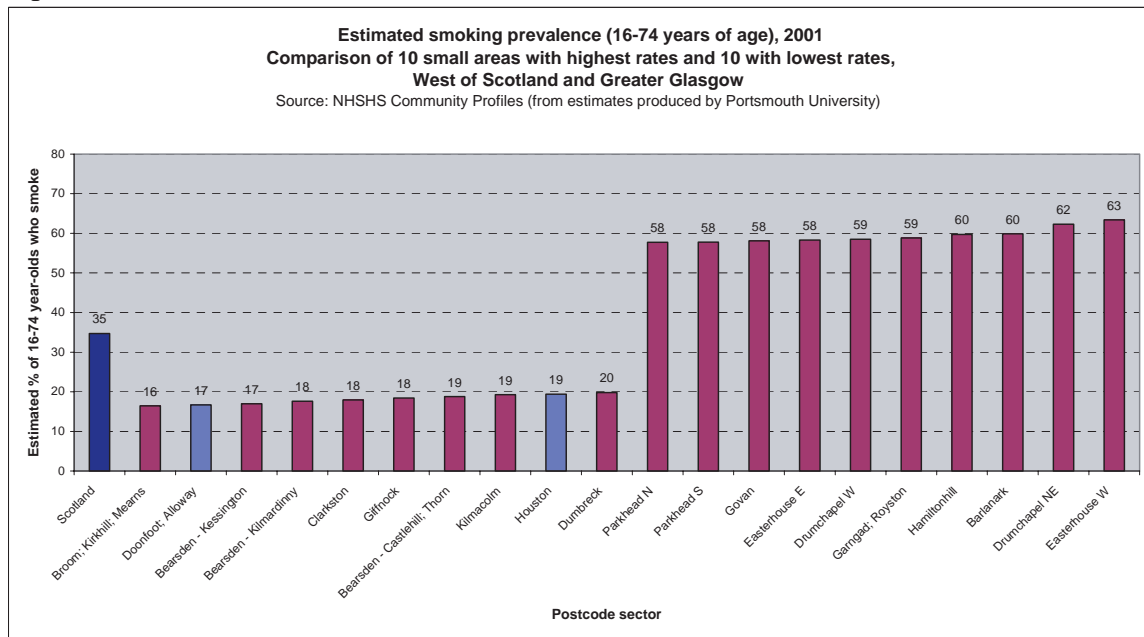
^{ix} Note also that the estimates are based on 1995 and 1998 Scottish Health Survey data. As Figure 7.16 shows, smoking prevalence in Glasgow is likely to have fallen slightly since then.

Figure 7.17



At a postcode sector level (Figure 7.18) the differences between the ten areas with the highest prevalence and the ten areas with the lowest prevalence are much wider, showing on average at least a three-fold variation. While the areas of lowest prevalence have levels of smoking 15-20% lower than the Scottish average (35%), in the areas of highest prevalence the rates are at least 25% higher, and in some areas are estimated to be above 60%.

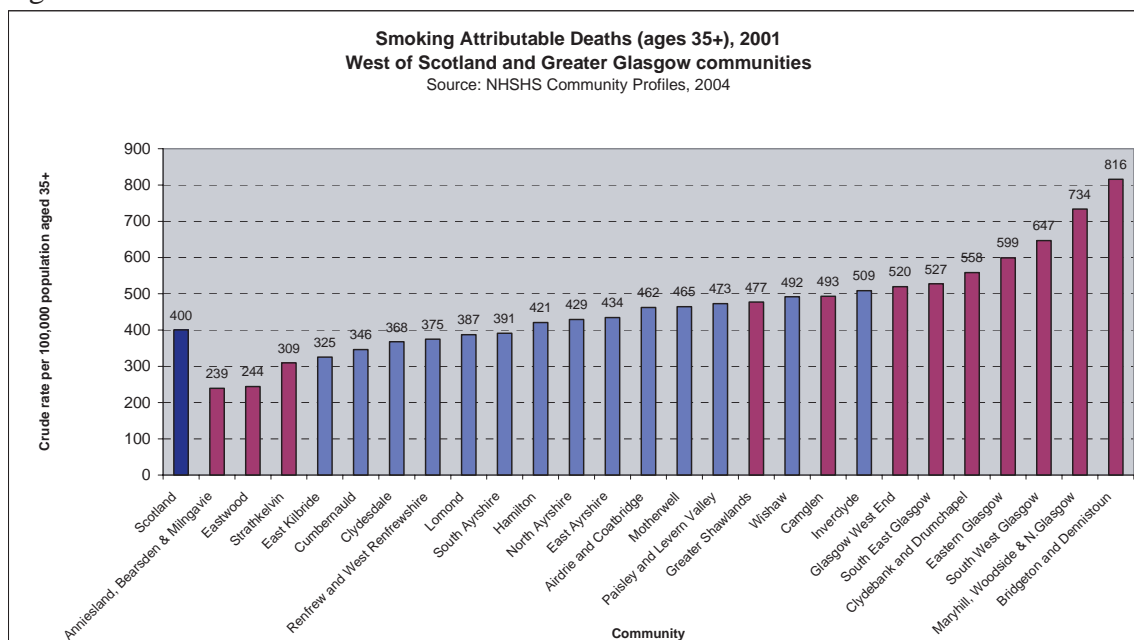
Figure 7.18



Smoking attributable deaths

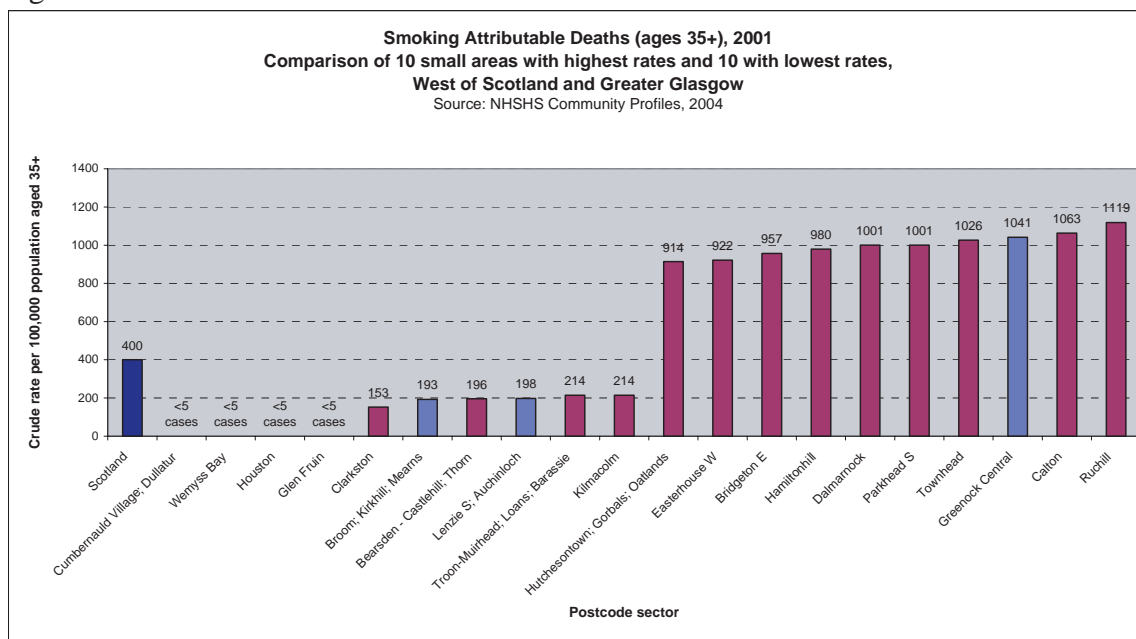
The estimates of smoking attributable death rates presented here are subject to the same caveats about accuracy as the smoking prevalence estimates (from which they were in part derived) discussed in the previous section. Despite this, relative differences between communities are again likely to be reasonably robust. Figure 7.19 shows that Anniesland, Bearsden & Milngavie, Eastwood and Strathkelvin are the communities with the lowest rates, while – in contrast – in South West Glasgow, Maryhill, Woodside & North Glasgow, and Bridgeton & Dennistoun rates of death attributable to smoking are at least twice as high.

Figure 7.19



A great deal of caution should be exercised when inspecting the smoking attributable death rates at a postcode sector level given the previously mentioned caveats over the accuracy of these estimates, which are particularly pertinent for small areas. Nevertheless, as Figure 7.20 illustrates, it is clear that many of the most deprived parts of Glasgow have the highest rates of death attributable to smoking. In contrast the areas with the lowest rates are geographically dispersed but clearly more affluent and with less health problems in general.

Figure 7.20

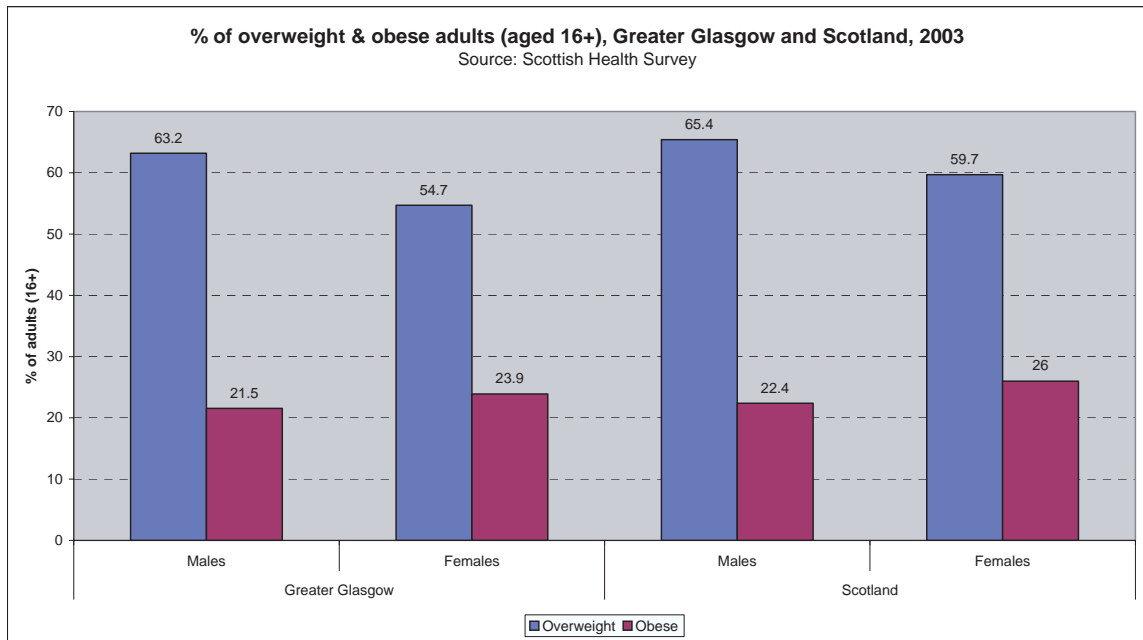


7.4 Obesity

Data from the most recent Scottish Health Survey (2003) estimate that more than half the adult female population of Greater Glasgow is overweight (55%), while the same is true of more than six out of ten adult males (63%). Furthermore, almost one in four females (24%) and more than one in five males (21.5%) were classed as obese^x. These are similar to the figures for all Scotland (females: 60% overweight, 26% obese; males: 65% overweight, 22% obese). These data are summarised in Figure 7.21.

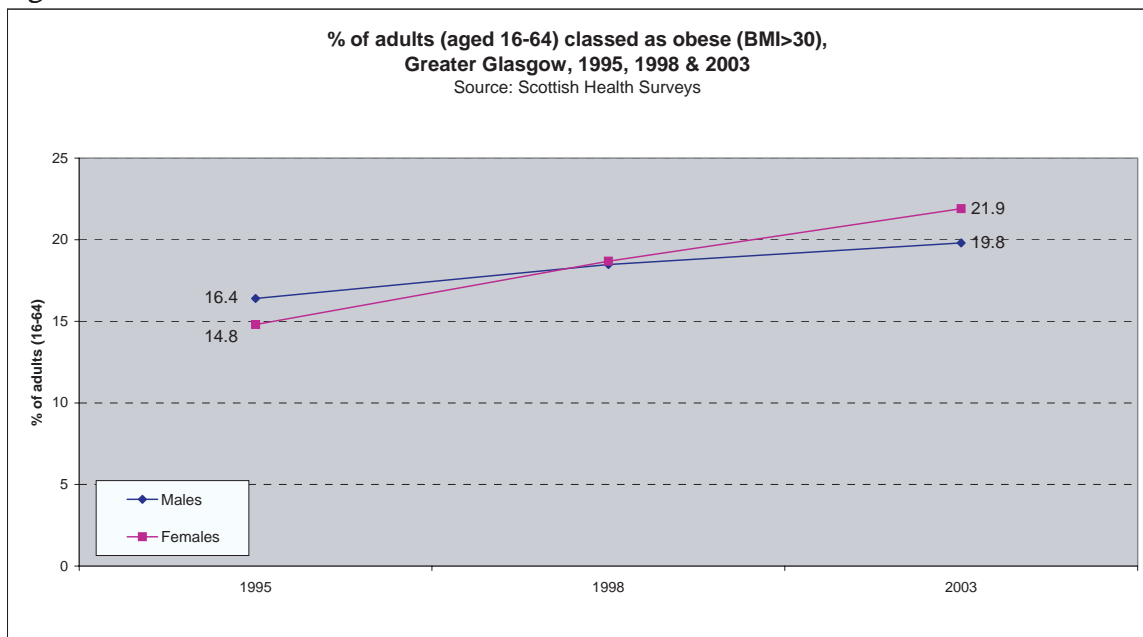
^x Overweight – body mass index (BMI) greater than 25; obese – BMI greater than 30.

Figure 7.21



Restricting the adult respondents in the survey to ages 16-64, we can show a trend in the levels of obesity from the 1995, 1998 and 2003 surveys. This is presented in Figure 7.22, showing a clear rise in levels of obesity for males and females.

Figure 7.22



As discussed in Chapter 9: Children and adolescents, childhood obesity has also reached worrying levels.

7.5 Diet

Detailed information on many aspects of diet is available from the Greater Glasgow Health and Well-being Survey⁴ and the 2003 Scottish Health Survey⁵. One illustrative example (from the Greater Glasgow survey) is presented here, namely fruit and vegetable consumption.

Figure 7.23 shows that one quarter of the population of Greater Glasgow does not eat any fresh fruit on a daily basis. However, this figure differs significantly between the three deprivation groupings used, ranging from just 11% in the least deprived areas (as defined by Carstairs deprivation⁶ categories 1 and 2) to 31% in the most deprived (categories 6 and 7).

Figure 7.23

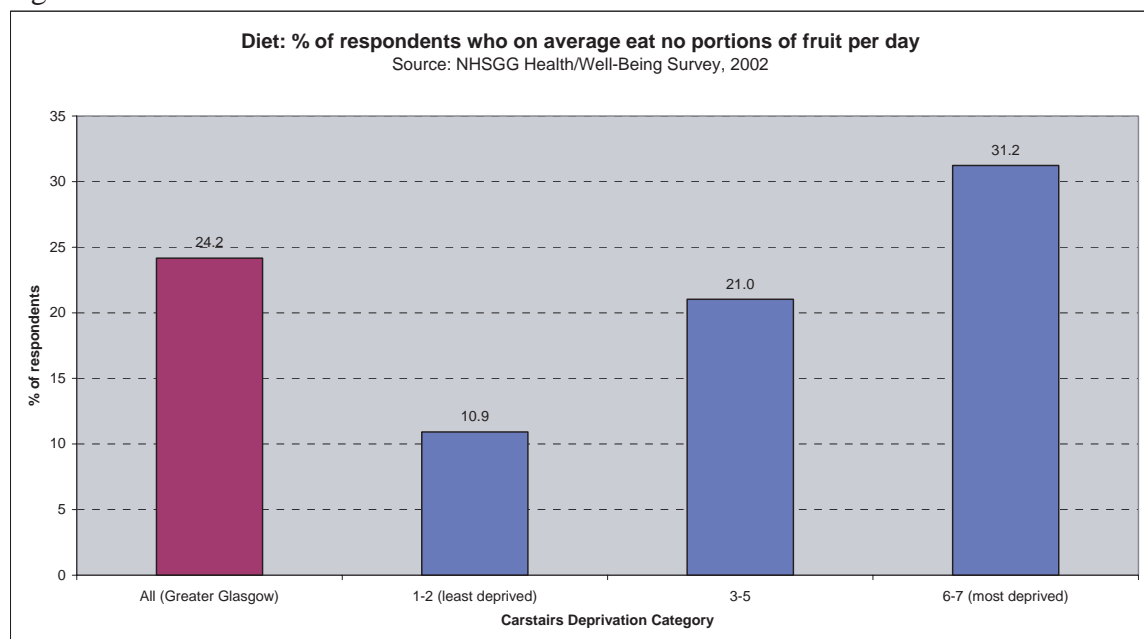
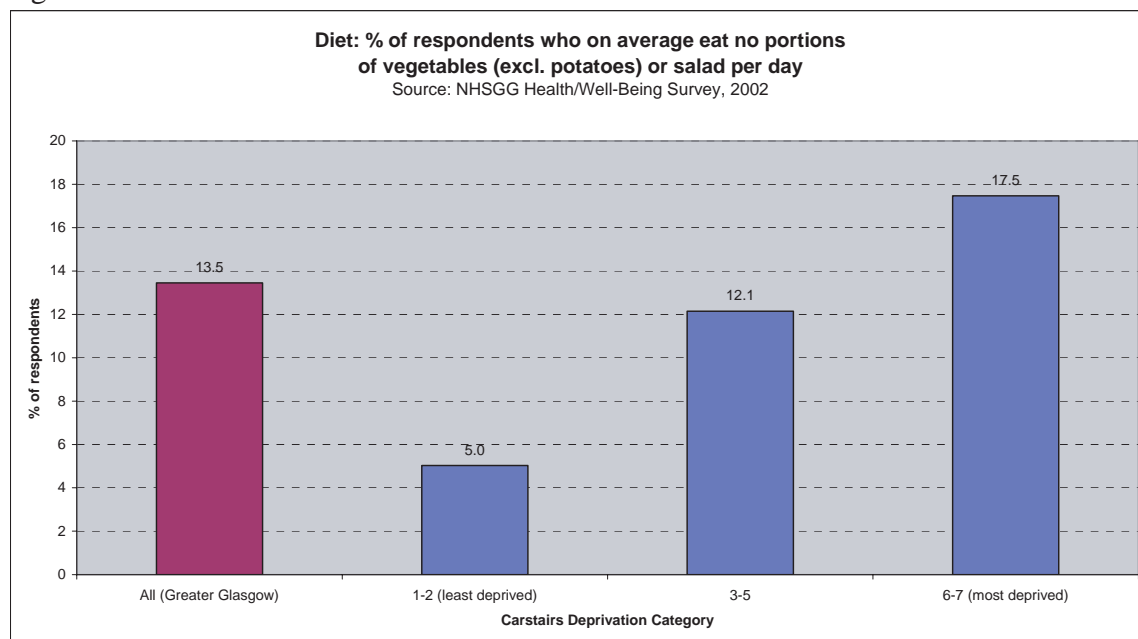


Figure 7.24 shows similar figures for vegetables/salad (excluding potatoes). Overall, 13.5% of the population do not eat vegetables/salad daily. However, the figure is as low as 5% in the more affluent parts of Greater Glasgow, and as high as 17.5% in the most deprived areas.

Figure 7.24

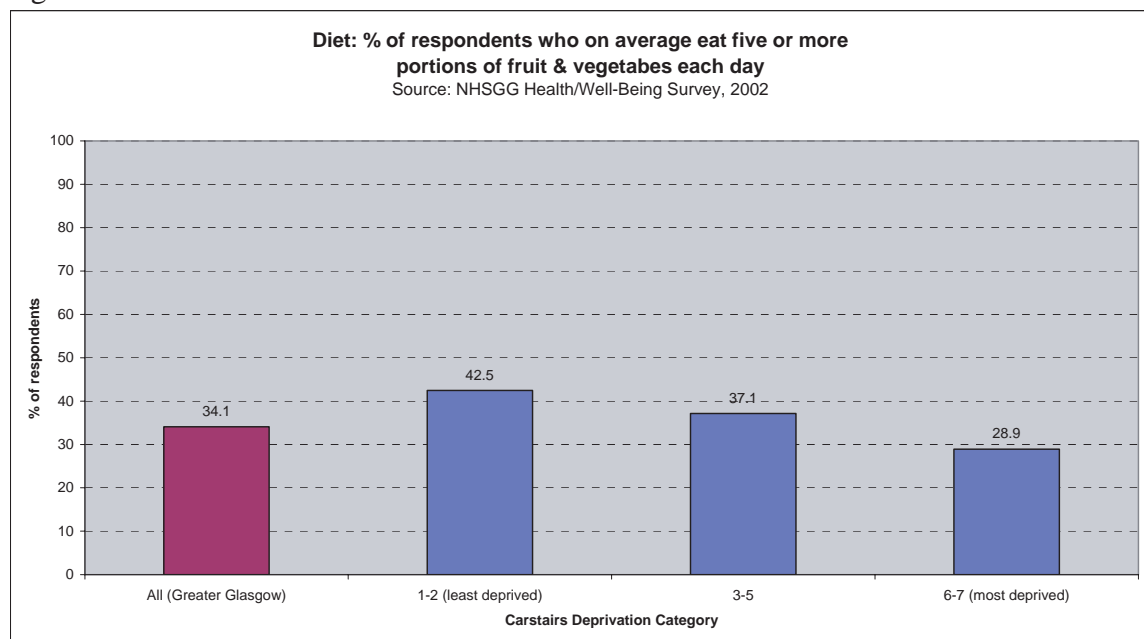


The minimum guideline for fruit and vegetable consumption is five or more portions of fresh fruit and vegetables per day. Figure 7.25 shows that overall, 34% of the Greater Glasgow population were meeting this target in 2002. However, there were significant differences between sub-categories of the population with the proportion meeting the target ranging from 29% (most deprived areas) to 42% (least deprived). Although not shown here, the overall figure in the 1999 survey was 25%: thus, there has been a significant increase over four years. However, separate analysis of the data for SIP^{xi} and non-SIP areas showed that this increase only took place in non-SIP areas, potentially increasing the health gap between more and less affluent communities in Greater Glasgow.

Furthermore, it should be noted that the 2003 Scottish Health Survey suggests considerably fewer residents of Greater Glasgow are meeting this target (21%) than the Greater Glasgow survey found in 2002.

^{xi} Social Inclusion Partnership.

Figure 7.25

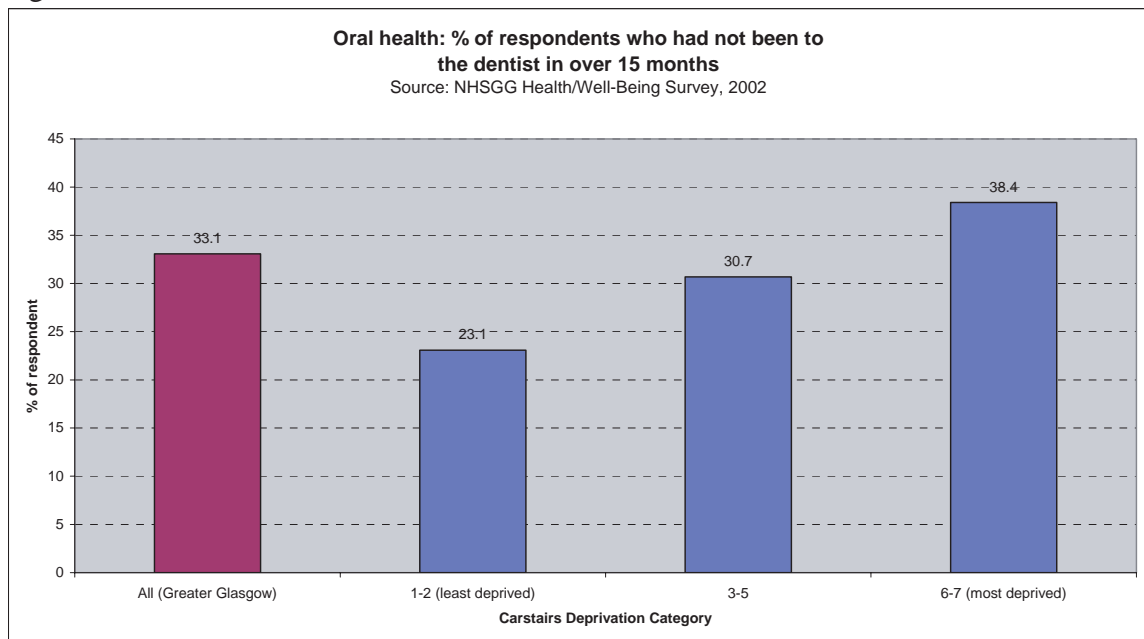


7.6 Oral health

A more detailed analysis of oral health of children is contained in Chapter 9: Children and adolescents, but two questions asked of adults in the 1999 and 2002 Greater Glasgow Health and Well-being Surveys are of potential interest here.

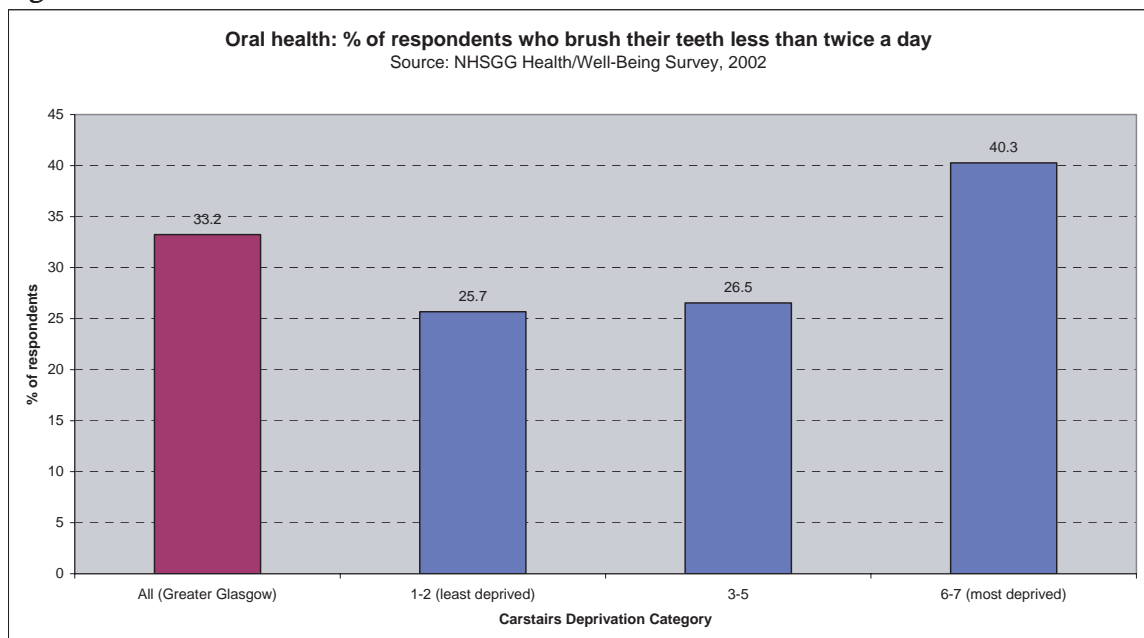
At the time of the 2002 survey, one in three of the Greater Glasgow population had not visited a dentist in over 15 months, with statistically significant differences between the three deprivation groupings used: ranging from 23% in the least deprived areas to 38% in the most deprived (Figure 7.26). These figures were not significantly different to those recorded in the 1999 survey.

Figure 7.26



A similar proportion of the population (33%) stated in 2002 that they brush their teeth less than twice a day (Figure 7.27). Again, this was not significantly different to the 1999 figures, but again there were significant differences between sub-categories of the population: 25% in the least deprived areas, 40% in the most deprived.

Figure 7.27

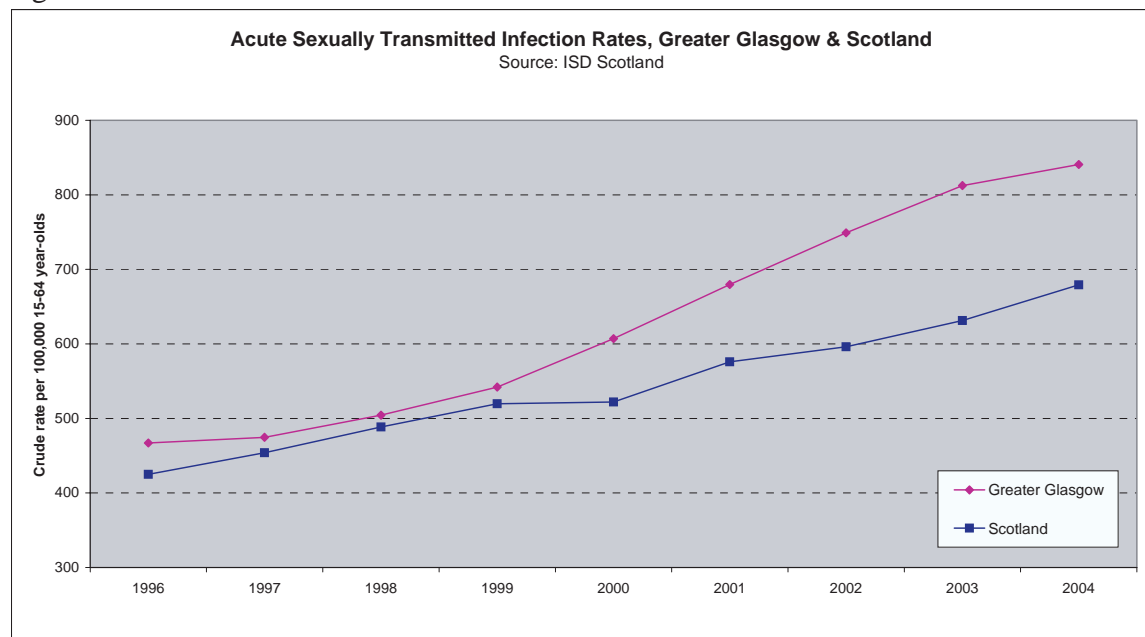


7.7 Sexual health

Only one indicator of sexual health is considered here: sexually transmitted infections (STIs). However, given current trends it is arguably one of the most important.

Figure 7.28 shows so-called acute STI rates for the Greater Glasgow area (and Scotland) between 1996 and 2004. Acute STIs include: infectious syphilis, gonorrhoea, chlamydia, genital herpes (first episode only), genital warts (first episode only), non-specific genital infections (non-chlamydial), trichomoniasis, HIV infection (newly diagnosed only), and 'other acute STIs'^{xii}.

Figure 7.28



The numbers of acute STI diagnoses are expressed as a crude rate per 100,000 population aged 15-64. For Greater Glasgow, there has been a 93% increase over eight years. The equivalent figure for Scotland is 71%. In terms of actual numbers, the total number of recorded diagnoses within Greater Glasgow in 1996 was 2,100 and this had increased to over 4,000 by 2004. The total figure for all Scotland in 2004 was almost 19,000.

Note, however, that these figures may be influenced by proximity to genito-urinary medicine services, and it is possible that the higher rate of increase in Greater Glasgow reflects higher levels of screening in the area. Despite these caveats, the figures are clearly a cause for concern.

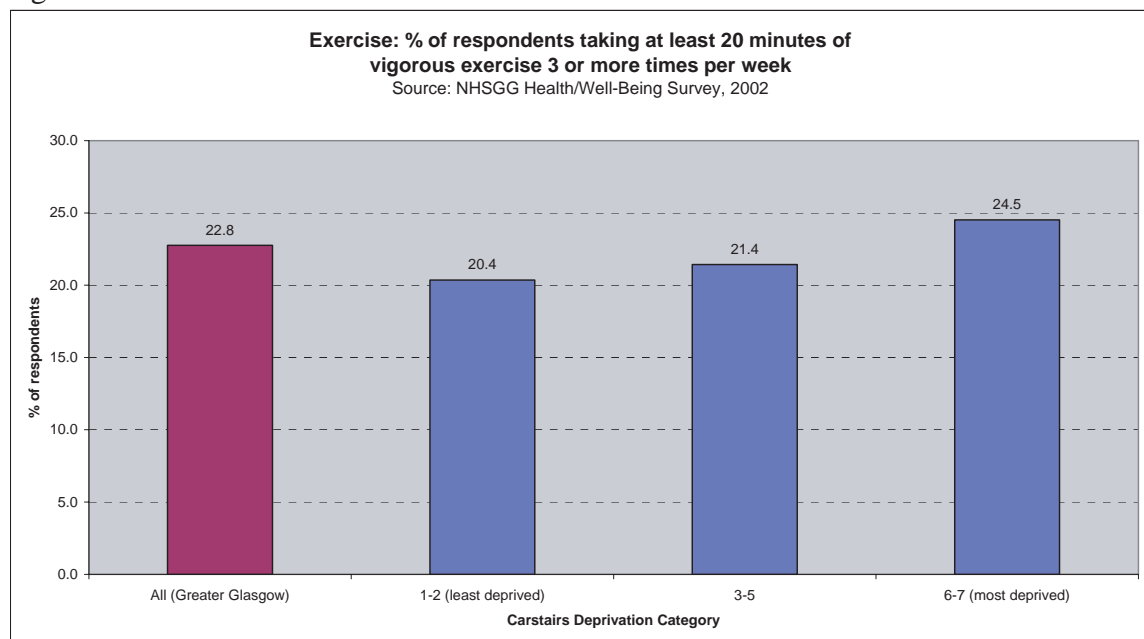
^{xii} NB this group of diagnoses does not, therefore, include: other acquired syphilis, congenital syphilis, genital herpes recurrence, genital warts recurrence/reregistered.

7.8 Physical activity

Two aspects of physical activity are presented in this final section of the chapter: the proportion of Glaswegians meeting nationally set targets for physical exercise (from the Greater Glasgow Health and Well-being surveys), and the proportion of the population travelling to work or study by bike or on foot (from the 2001 Census).

Figure 7.29 shows that in 2002 just over a fifth of the population of Greater Glasgow met one of the minimum exercise targets, taking at least 20 minutes of vigorous exercise three or more times per week. It is notable that this figure did not differ significantly across the three deprivation groupings shown.

Figure 7.29



However, over half (55%) the Greater Glasgow respondents met the less demanding target of taking either 20 minutes of vigorous exercise three or more times per week or 30 minutes of moderate exercise five or more times per week. These data are shown in Figure 7.30.

Figure 7.30

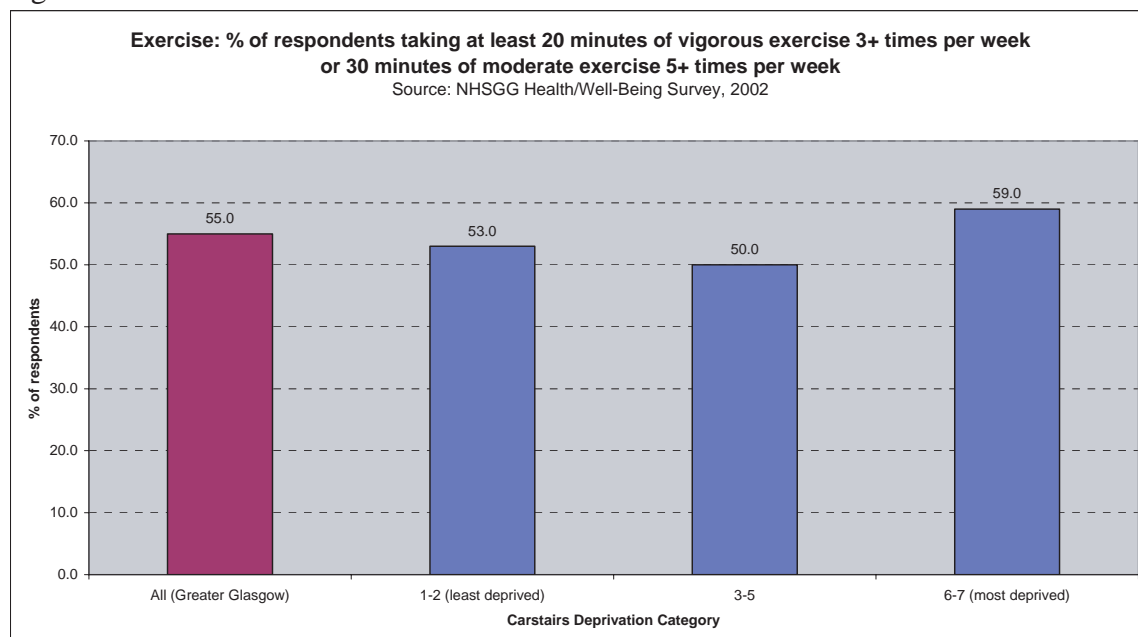
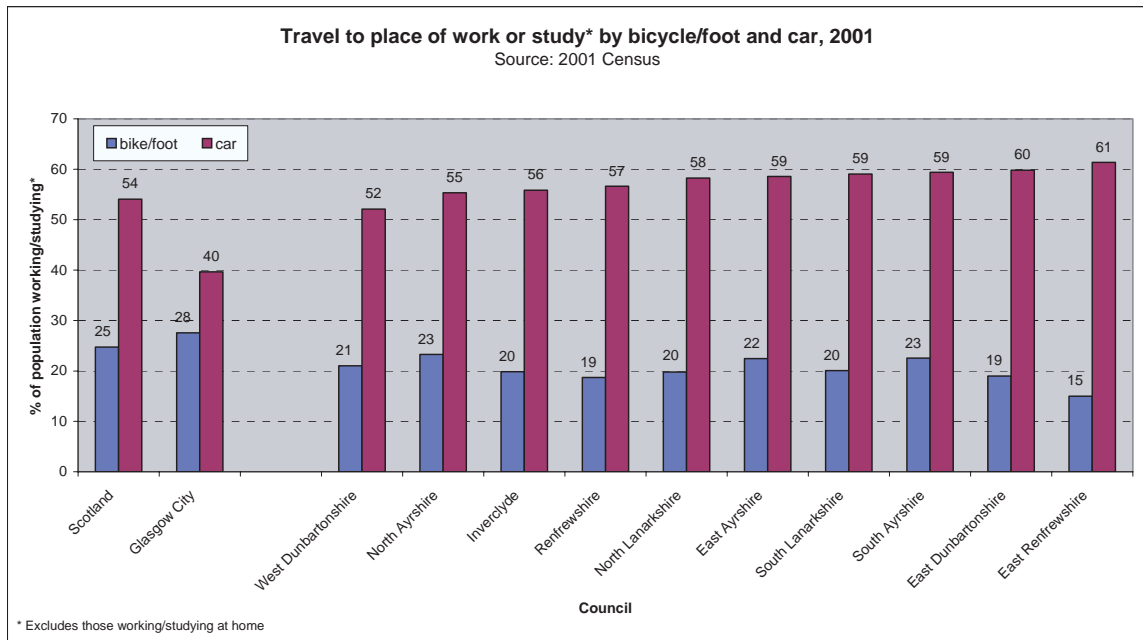


Figure 7.30 also shows that significantly more respondents (59%) in the most deprived areas were meeting this target. Furthermore, although not illustrated here, comparison with the 1999 survey shows that there was a significant increase in the proportion of the population living in SIP areas who were taking this level of exercise – from 48% to 61%. There was no significant increase for the rest of the population.

The 2003 Scottish Health Survey presents data on a more recent physical activity target (30 minutes or more moderate or vigorous activity at least five days a week). This showed that in Greater Glasgow 36% of adults (aged 16-74) met this target, which was significantly higher than the figure recorded in the 1998 Scottish Health Survey (28.5%)⁷.

Finally, Figure 7.31 shows the percentage of the population who travel to their place of work/study by bicycle, foot and car. This shows that in Glasgow considerably fewer individuals travel to work/study by car than is the case nationally (40% compared to the Scotland figure of 54%), and that more people regularly commute on foot or by bicycle. That said, we have already shown in Chapter 4: Economic factors that car ownership in Glasgow is rising, and, as discussed in the previous chapter, future projections in traffic volume show arguably unsustainable increases. Thus, this picture may change in the near future.

Figure 7.31



Summary

A number of worrying trends are highlighted in this chapter:

- Alcohol is a major cause for concern. There are estimated to be more than 13,500 'problem alcohol users' resident within Glasgow City and, since the beginning of the 1990s, there has been a striking increase in numbers of alcohol related deaths and hospitalisations within both Scotland and the Greater Glasgow area. By 2003, 17% of all premature deaths among males in Greater Glasgow were related to alcohol, while liver cirrhosis mortality rates among males exceeded the maximum national figure in Western Europe.
- The increase in the levels of obesity among adults in Greater Glasgow is also worrying. A fifth of males and almost a quarter of females are now estimated to be obese, with well over half classified as overweight.
- In eight years (from 1996 to 2004), recorded rates in acute sexually transmitted infections have almost doubled. Although some of this increase may in part be due to better screening, this is an important problem in Glasgow (as it is elsewhere in Scotland).
- Over the same eight-year period, drug related deaths in Greater Glasgow have risen by a third. There are estimated to be around 25,000 'problem drug users' in the West of Scotland (of whom more than 11,000 live in Glasgow).
- Better news is evident in terms of the overall downward trend in smoking. Nonetheless, it remains one of the commonest causes of preventable mortality and demonstrates profound inequalities in its distribution.
- Survey results also suggest that further good news is provided by the number of people within the more deprived areas of Greater Glasgow who are taking regular exercise.

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Summary

Teenage pregnancies for 13-19 year olds have reduced nationally and, although the gap (compared to Scotland) has reduced, Glasgow still has a higher than average teenage pregnancy rate.

There is a gap of ten years in the age of first time mothers across West of Scotland communities with mothers in more deprived communities likely to have their first child at a much younger age.

However, trends indicate that proportionately more and more babies are being born to older mothers – in 2004 almost 50% of births were to mothers of 30 years of age or older.

Despite reductions nationally and across deprivation groups, rates of smoking in pregnancy remain polarised between very high rates in the more deprived parts of Glasgow and much lower rates in the more affluent areas.

Deprivation has a strong association with low birthweight, with the most deprived 20% of areas having double the low birthweight rate of the least deprived 20% of areas.

There have been modest rises in breastfeeding over the last few years and the breastfeeding rate in Greater Glasgow is now at the level of the Scottish average. However, there are large variations in breastfeeding rates at a small area level: within the West of Scotland, the areas with the highest and the lowest levels breastfeeding are both concentrated in Glasgow.

The lowest uptake of primary immunisation tends to be concentrated in Glasgow, and lower uptake, with the exception of MMR, is associated with greater deprivation.

Strong associations between socioeconomic factors (such as lone parent households and children in workless households) and maternity-related indicators emphasise the importance of the interaction between social, cultural and economic factors and health behaviours.

“Six out of the ten areas with the highest teenage pregnancy rates were in Glasgow, all at least double the Scottish average.”

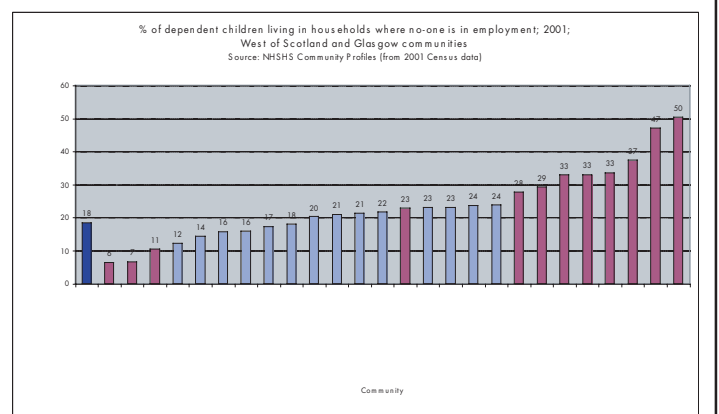
“There is a strong trend toward women having children at older ages.”

“Maternity related indicators emphasise the importance of the interaction between social, cultural and economic factors and health behaviours.”

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 8: Pregnancy, childbirth and early years

The period of pregnancy and the early years of life are recognised as extremely important for child development. While immunisation has successfully reduced the impact of many once common diseases (and is still vitally important), increasing focus is now given to behavioural and socio-demographic factors that can affect the health of both mothers and babies e.g. smoking, alcohol, drug abuse, age and deprivation.

This chapter reports on a range of indicators relating to pregnancy and infant health. The topics covered are: teenage pregnancy, teenage abortions, age of first time mothers, smoking in pregnancy, low birthweight, breastfeeding and immunisation.

Infant deaths, which were reported on in two previous chapters (Chapter 2: A historical perspective on Glasgow's population, and Chapter 3: Population and life expectancy) are also briefly summarised in terms of their relationship with deprivation. A final section comments on the strong associations between many of these indicators and their relationships with two socioeconomic factors: single parenthood and living in a workless household.

As with previous chapters, many of the comparison graphs are drawn from two main publications: NHS Health Scotland's Community¹ and Constituency profiles². The data within these reports mainly relate to the period up to 2000-2002, but where possible these data are supplemented with more recent data in order to show up to date trends.

8.1 Teenage pregnancies and teenage abortions

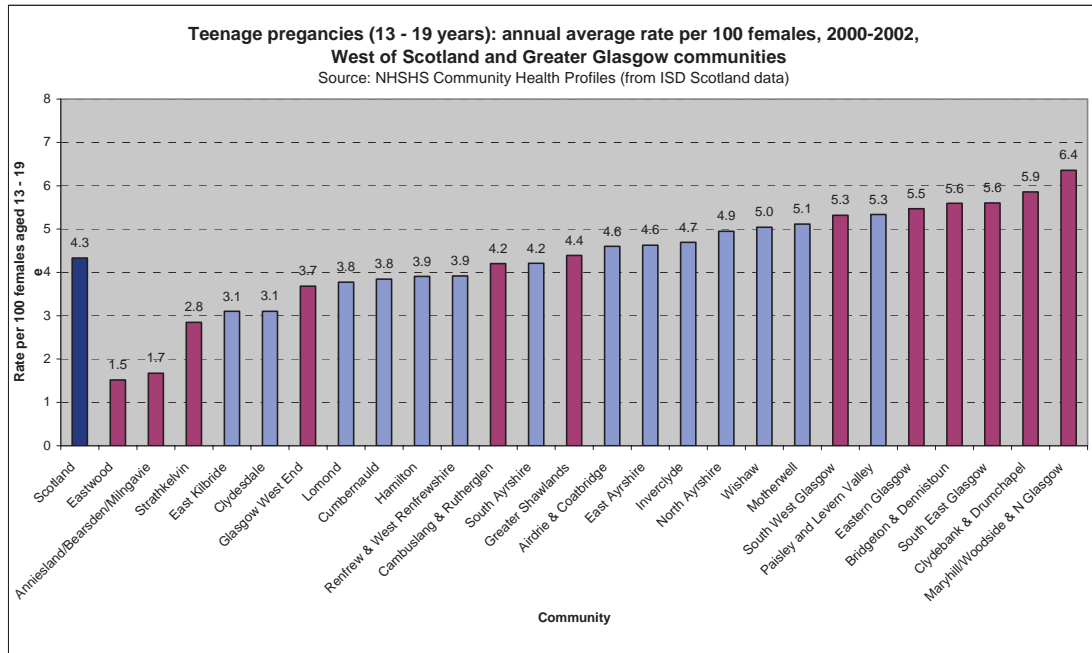
Teenage pregnancy

The first two Figures in this section display teenage pregnancy rates by 'community'ⁱ and by postcode sector. Across West of Scotland communities in 2000-2002 there was a three-fold variation in the rate of teenage (age 13-19) pregnancies (Figure 8.1). In Eastwood and Anniesland, Bearsden & Milngavie, the annual average ratesⁱⁱ were 1.5 and 1.7 per 100 females (13-19), respectively, while the rates in eight other communities (from Motherwell to Maryhill, Woodside & North Glasgow) were at least three times greater, ranging from 5.1 to 6.4 per 100. In comparison, the Scottish average for this measure over the period was 4.3 per 100 females (13-19).

ⁱ These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see 'Preface to Chapters 2-12'.

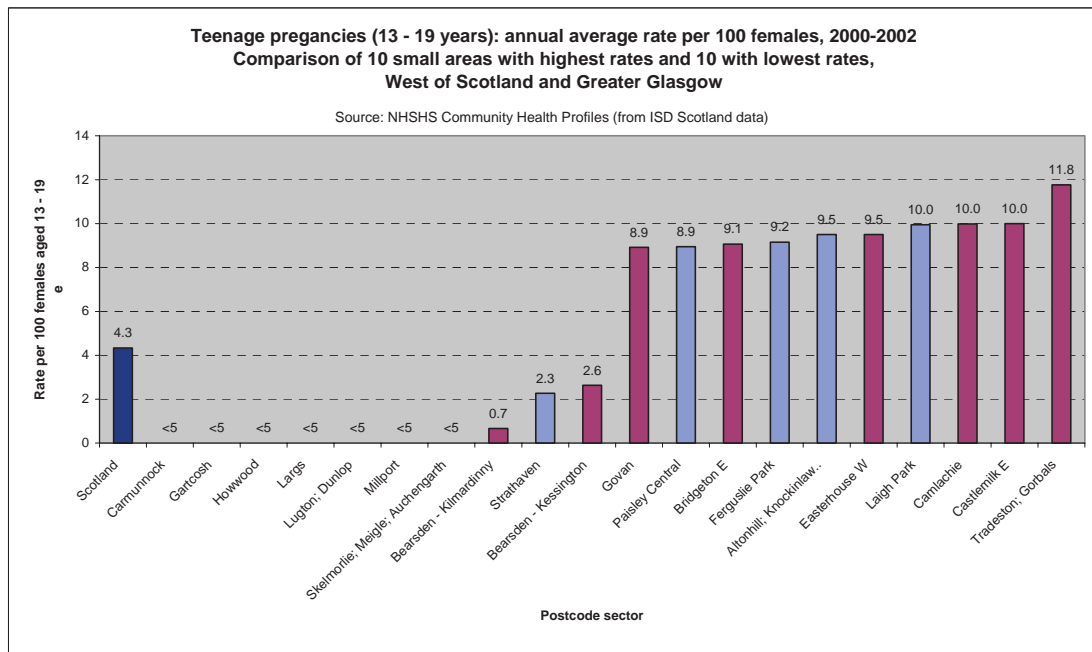
ⁱⁱ Rates shown are annual averages rather than three year totals, as used in the NHS Community Profiles.

Figure 8.1



At a postcode sector level the ten areas with highest rates all had rates at least double the Scottish average (Figure 8.2)ⁱⁱⁱ. Six out of ten of these areas were in Glasgow, three were in Paisley and one was in East Ayrshire.

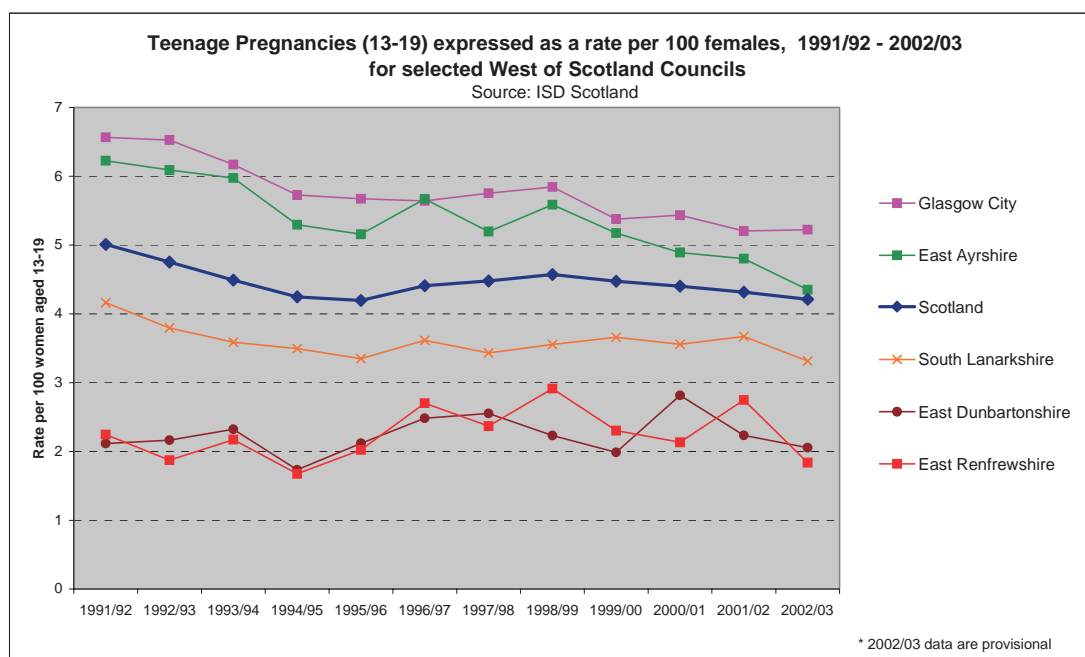
Figure 8.2



ⁱⁱⁱ Note figures quoted as '<5' relate to areas where there were less than five teenage pregnancies in the period 2000-2002.

Trends in teenage pregnancy rates across a selection of West of Scotland council areas between 1991-93 and 2001-03 (see Figure 8.3) show that, while the overall rate of teenage pregnancies has reduced nationally, Glasgow has maintained a higher rate. However, the rates for the two councils with the highest rates, Glasgow and East Ayrshire, have reduced to levels closer to the national rate.

Figure 8.3

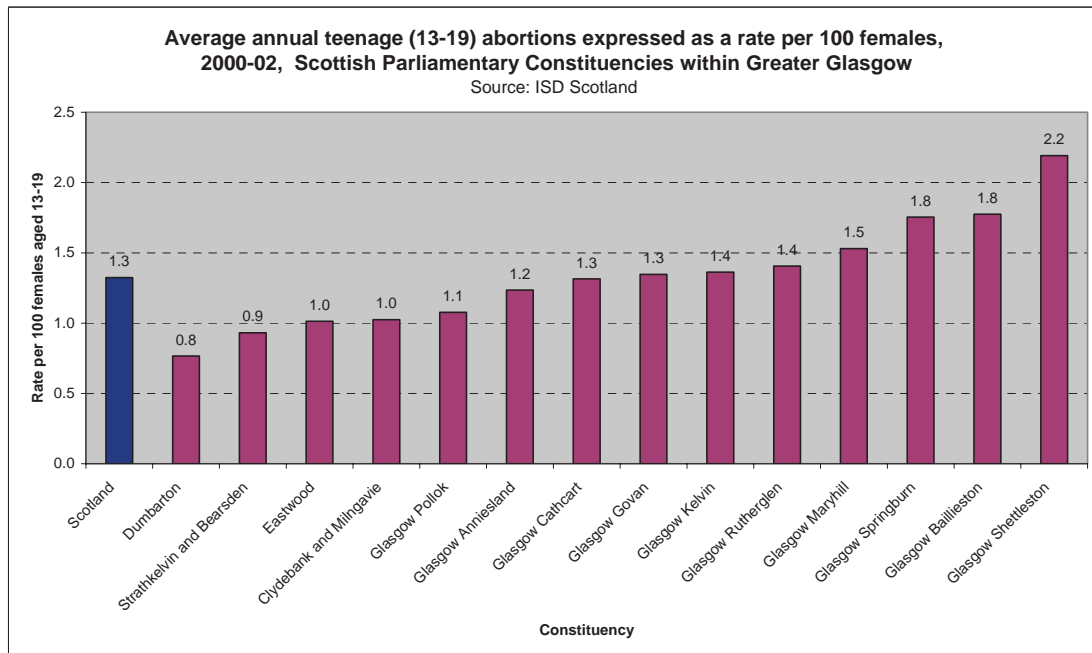


Teenage pregnancy rates have a strong association with deprivation. The Scottish Executive's report on measuring inequalities³ showed that, nationally, the ratio of the rate of teenage pregnancies among 13-15 year olds between the most and least deprived quintiles was three to one; that is, on average, a 13-15 year old girl living in the 20% of most deprived areas would be three times more likely to have had a teenage pregnancy than a girl of the same age living in one of the 20% of least deprived areas.

Teenage abortions

In the period 2000-2002, the average annual rate of teenage (13-19 years) abortions in Scotland was 1.3 per 100 females (13-19). Among Scottish Parliamentary Constituencies within Greater Glasgow, this rate varied from 0.8 per 100 in Dumbarton to 2.2 per 100 in Glasgow Shettleston, a rate which is 65% above the Scottish average (Figure 8.4). Over the period 1993/95-2000/02 there was a slight rise in the teenage abortion rate nationally (13.9%) and rises of varying amounts in most of the constituencies within Greater Glasgow. The largest rise was in Eastwood (+94%), although the actual rate remained below the Scottish average.

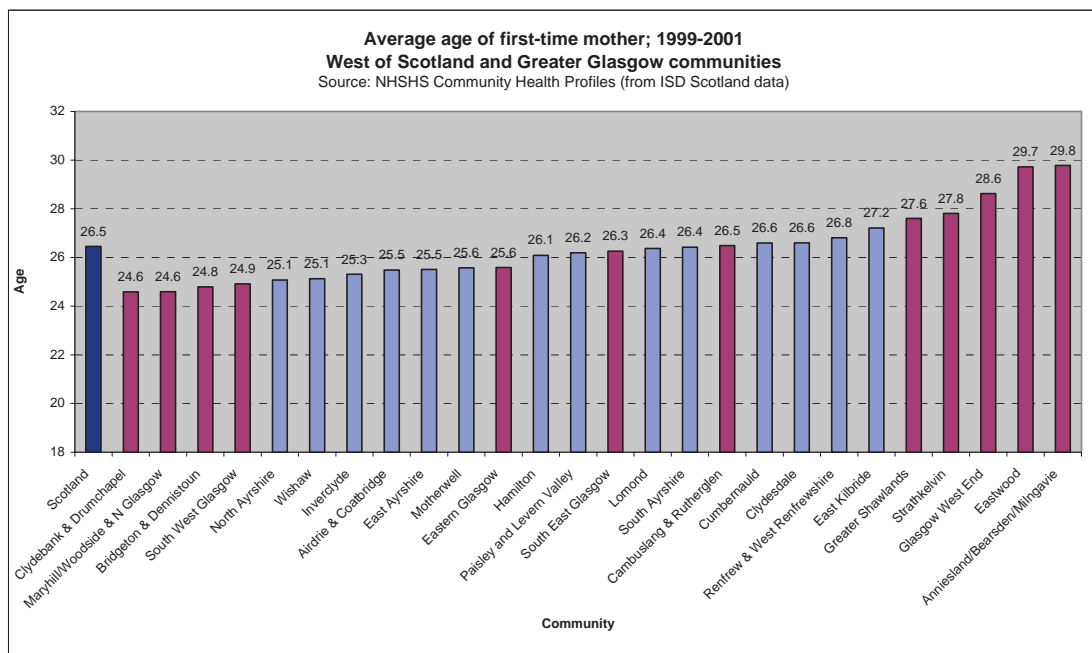
Figure 8.4



8.2 Age of first time mother

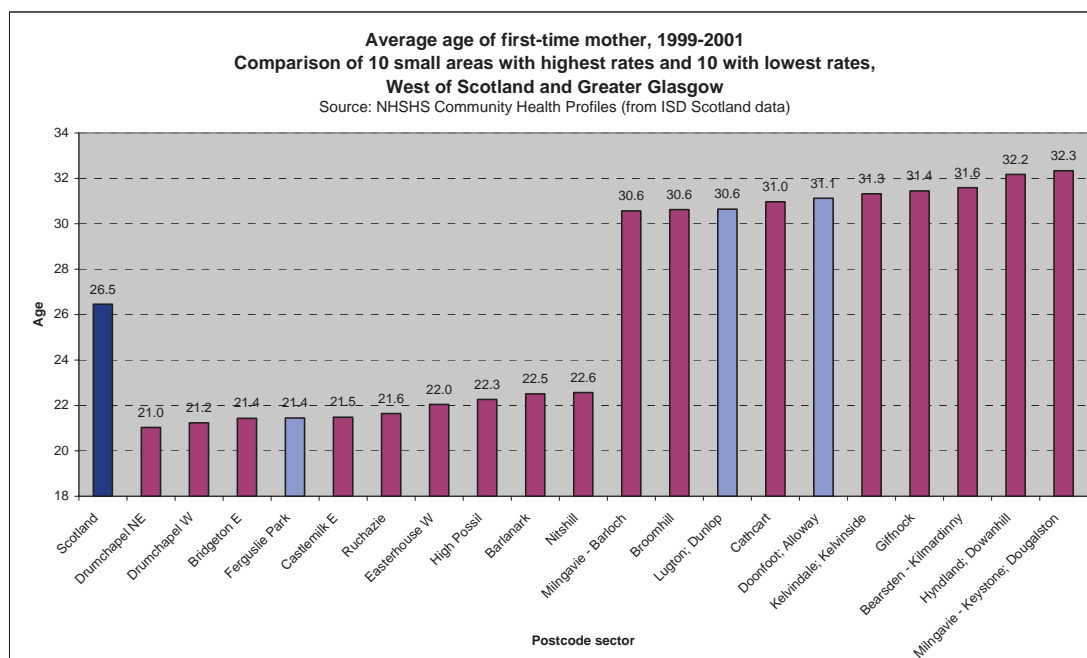
In the period 1999-2001, the average age of first time mothers varied between 24.6 years and 29.8 years across West of Scotland communities (Figure 8.5). The youngest first time mothers lived in Clydebank & Drumchapel, Maryhill, Woodside & North Glasgow, Bridgeton & Dennistoun and South West Glasgow, while the areas with the oldest first time mothers were also in Greater Glasgow, within the generally more affluent communities of Greater Shawlands, Strathkelvin, Glasgow West End, Eastwood and Anniesland, Bearsden & Milngavie.

Figure 8.5



A similar pattern is observed at a postcode sector level, but with an eight to ten year difference in the age of first time mothers observed between the areas with highest and lowest average ages (Figure 8.6). In Drumchapel, Ferguslie Park, and parts of the East of the city, the average age of first time mothers was between 21 and 22, while in Bearsden, Milngavie, Cathcart, Hyndland and Kelvinside the average age of new mothers was above 30.

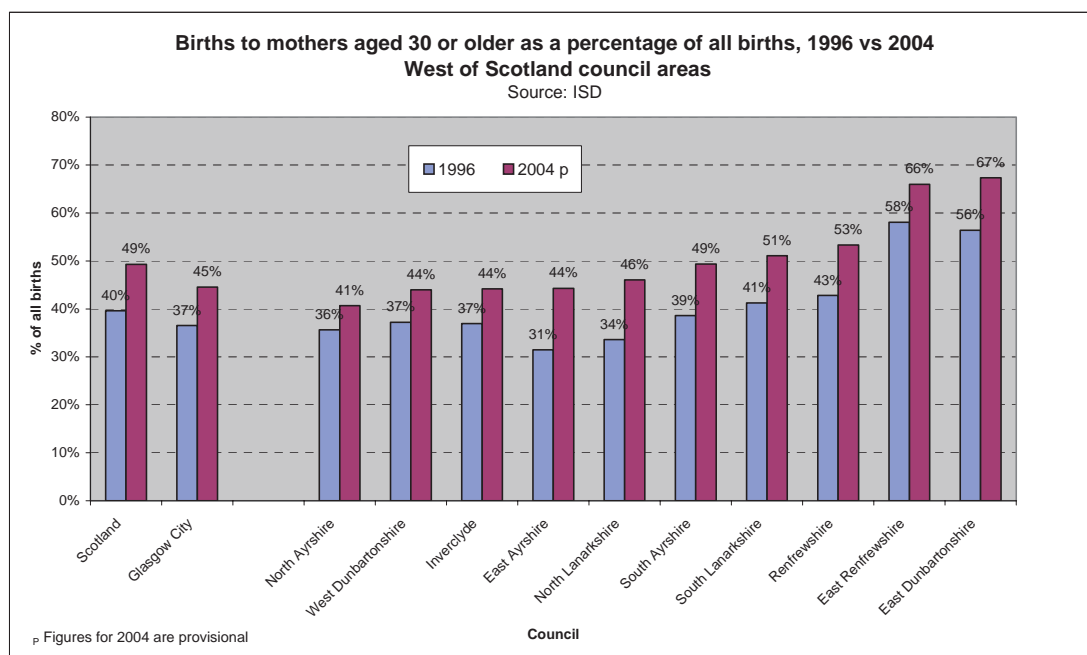
Figure 8.6



There is a strong trend toward women having children at older ages. At a national level the percentage of births to women of 30 years or older has risen from 40% of all births in 1996 to 49% in 2004. While every West of Scotland council has shown an increase in the percentage of births to ‘older’ mothers^{iv}, the actual proportions vary considerably between councils (Figure 8.7). In East Renfrewshire and East Dunbartonshire in 2004, two thirds of all births were to older mothers and, even in North Ayrshire, the council with the lowest proportion, 41% of births were to older mothers.

^{iv} Defined here as mothers of 30 years or older.

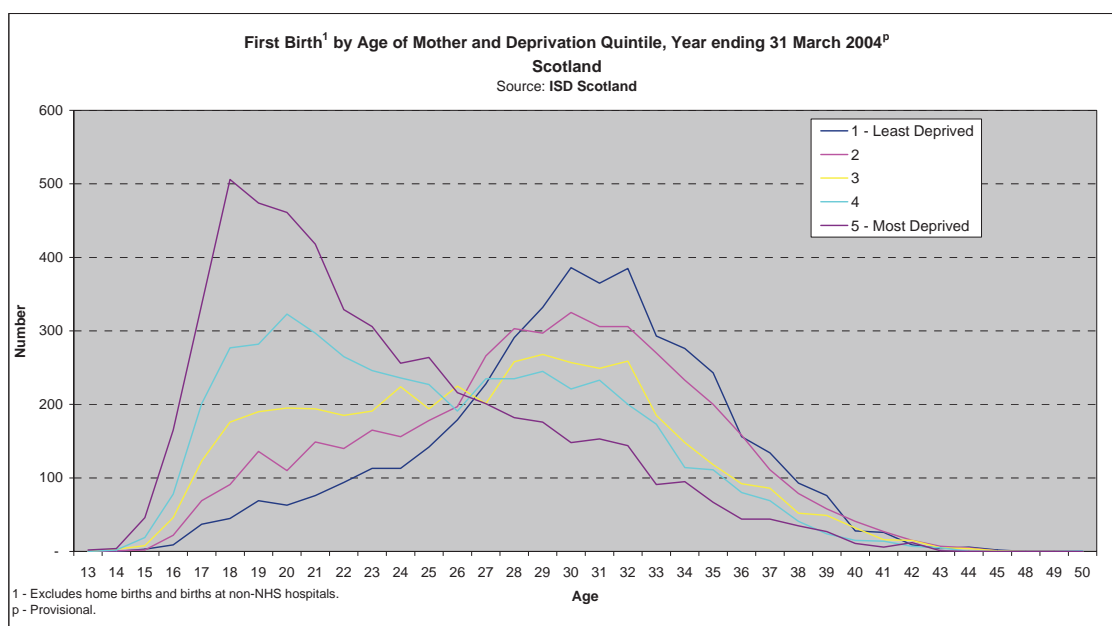
Figure 8.7



At the other end of the maternal age spectrum, the percentage of births to mothers under 20 years has remained stable at 8%, nationally, over the same period. However, while in East Renfrewshire and East Dunbartonshire only 3% and 5% of births respectively are to mothers under 20, in West Dunbartonshire and Inverclyde the proportions are much higher, at 11% and 12% respectively.

Nationally, there is strong association between deprivation and the age of mother at the birth of her first child (see Figure 8.8). The distribution of maternal age at birth of first child shows a difference of approximately 12 years between the most deprived quintile and the least deprived.

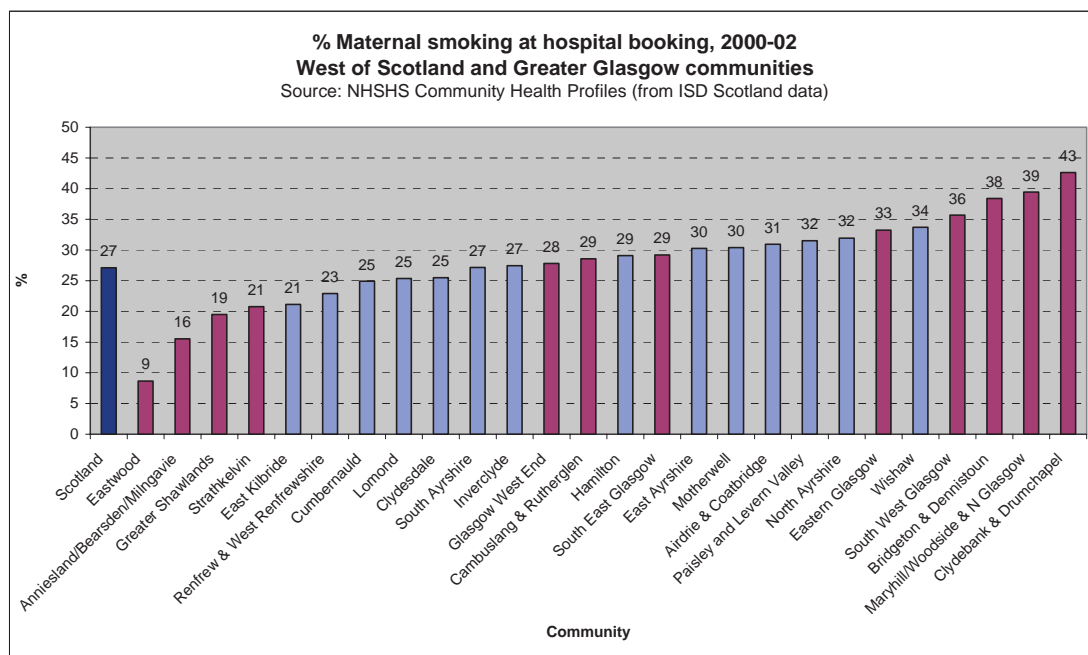
Figure 8.8



8.3 Smoking in pregnancy

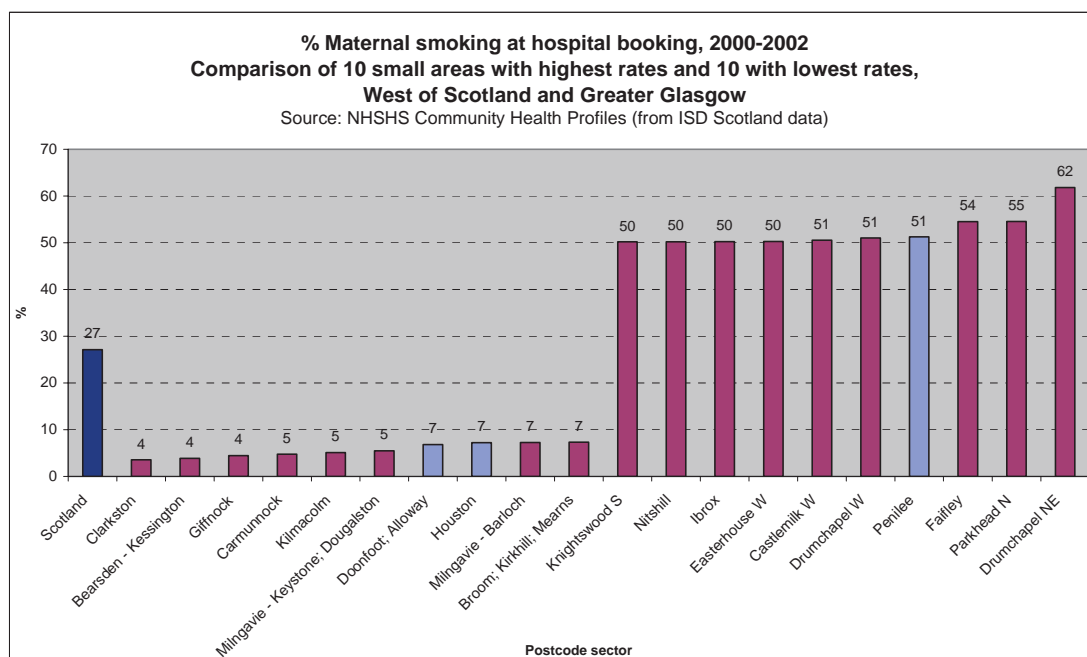
Across the West of Scotland in the period 2000-2002, figures for maternal smoking (recorded at first hospital booking) ranged from 9% in Eastwood to 43% in Clydebank & Drumchapel (Figure 8.9). Four Greater Glasgow communities (Eastwood, Anniesland, Bearsden & Milngavie, Greater Shawlands and Strathkelvin) had the lowest maternal smoking rates in the West of Scotland, while four other Glasgow communities (South West Glasgow, Bridgeton & Dennistoun, Maryhill, Woodside & North Glasgow and Clydebank & Drumchapel) had the highest rates in the West of Scotland.

Figure 8.9



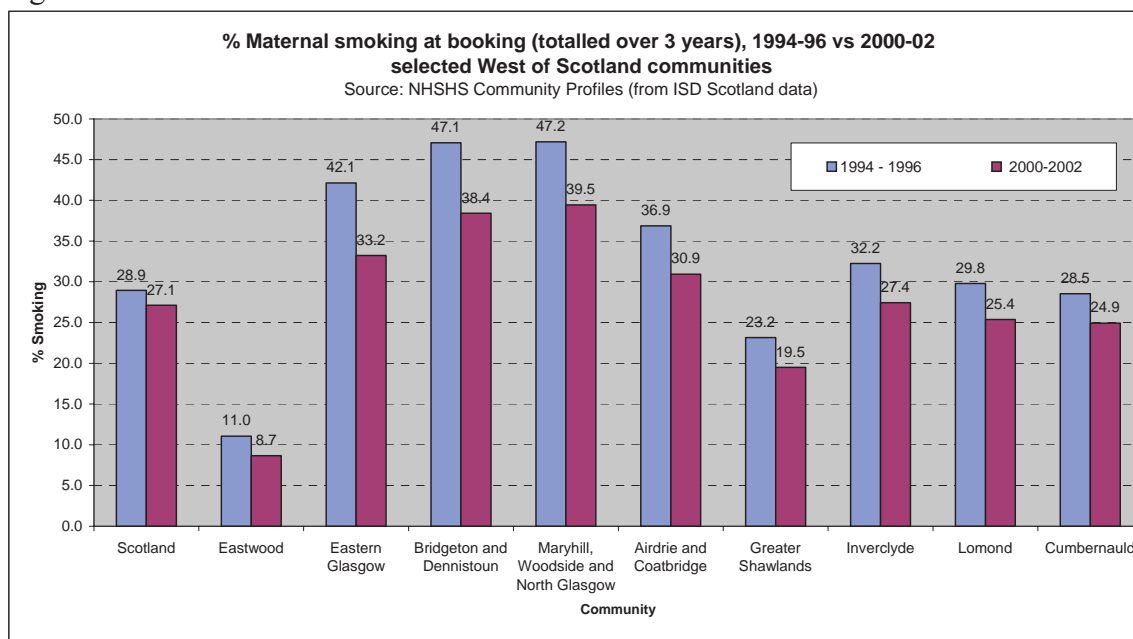
At a postcode sector level (see Figure 8.10), the differences in maternal smoking are considerable, with less than 10% of mothers smoking in the lowest maternal smoking areas to over 50% in the highest smoking areas – which are all characterised by deprivation, and multiple health and social problems.

Figure 8.10



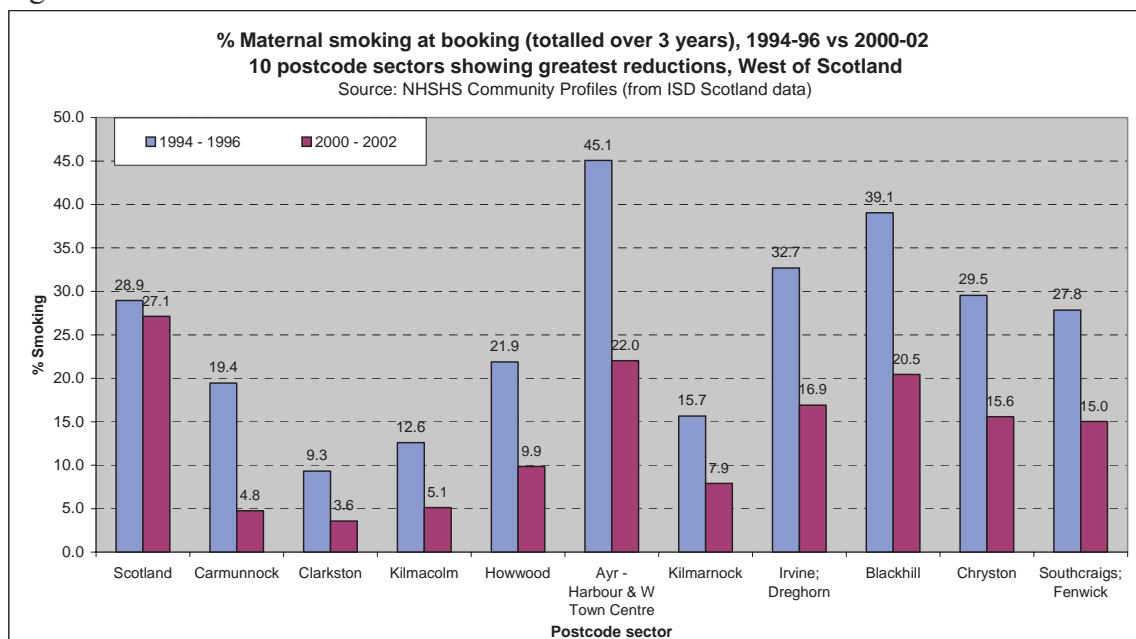
Trends in smoking in pregnancy over an eight-year period (1994-96 to 2000-02) show a modest reduction in maternal smoking at a national level, but reductions of at least 10% in nine West of Scotland communities (Figure 8.11).

Figure 8.11



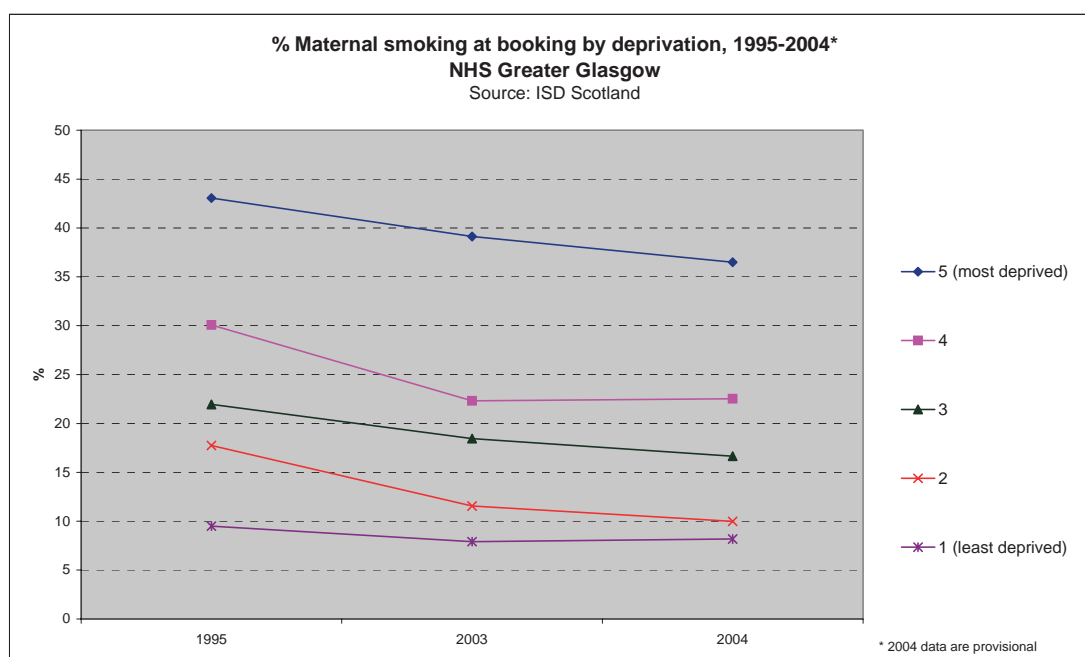
At a sector level a number of areas have shown a large percentage drop over the period (Figure 8.12).

Figure 8.12



Trends from 1995-2004 show that the rate of smoking in pregnancy has reduced by nearly a quarter in Greater Glasgow to 25%, a figure that is only just above the Scottish average. Over this period there have been reductions in all deprivation quintiles (see Figure 8.13). However, despite these reductions, the ratio of the rate of smoking in pregnancy between most deprived and least deprived areas has remained unchanged: mothers in the most deprived quintile are four times as likely to smoke as in the most affluent quintile.

Figure 8.13

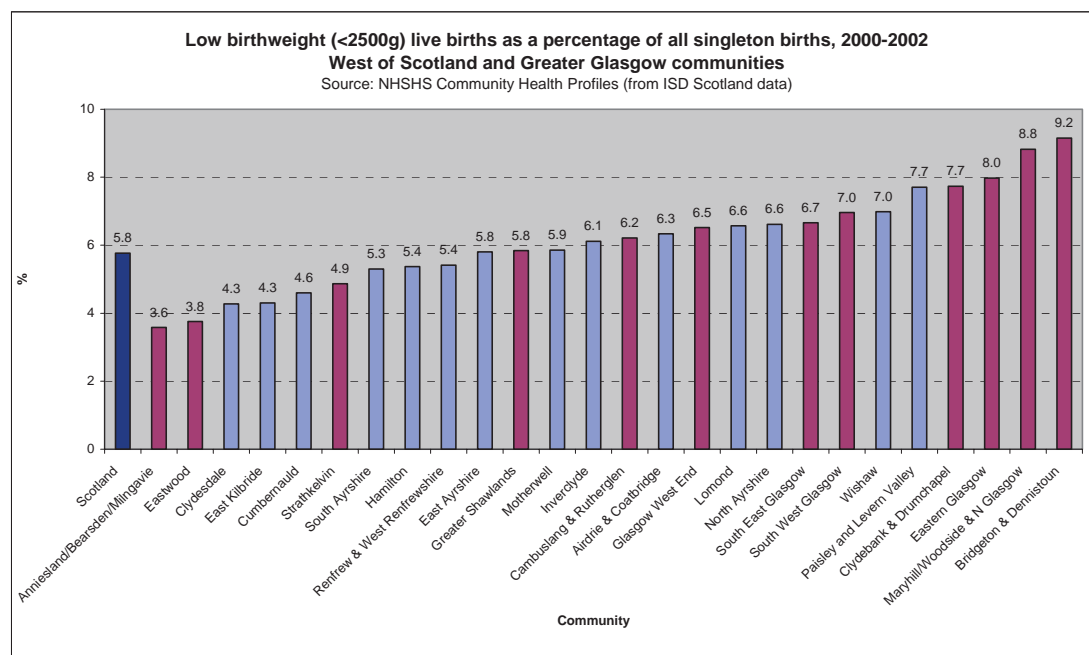


However, it should be noted that recent research suggests that at least part of the reduction in smoking in pregnancy may be an artefact of changes in recording⁴.

8.4 Low birthweight babies

Across Scotland, 5.8% of babies were of low birthweight (<2500g) in the period 2000-2002^v. Across West of Scotland communities, the percentage of low birthweight babies ranged from 3.6% in Anniesland, Bearsden & Milngavie to 9.2% in Bridgeton & Dennistoun (Figure 8.14).

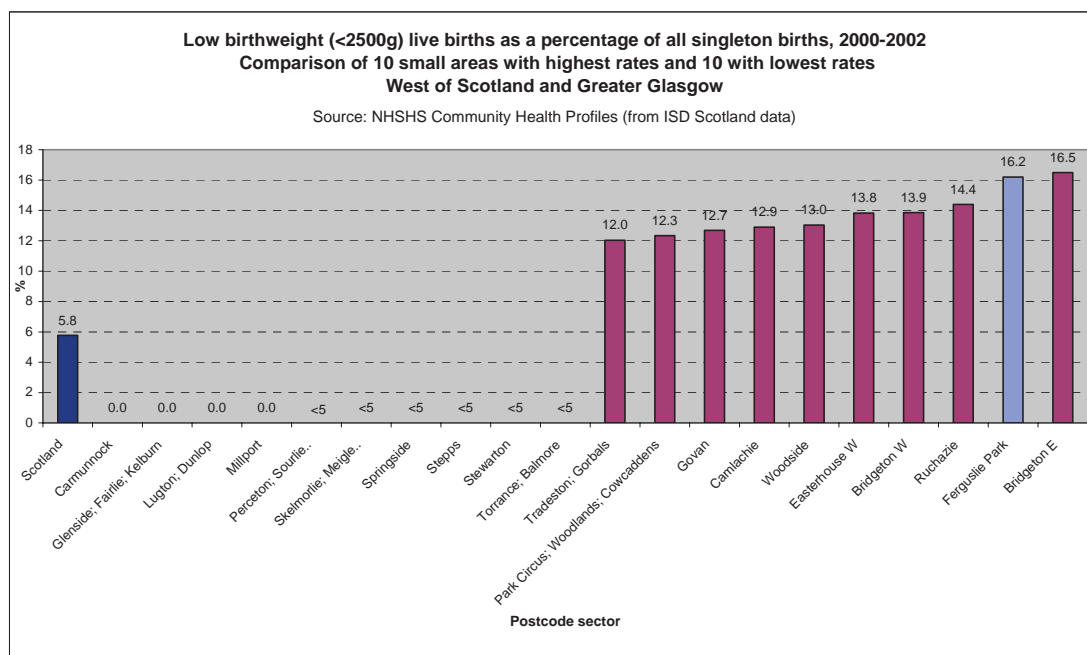
Figure 8.14



At a sector level, in four areas there were no low birthweight babies born between 2000 and 2002 and in other areas the numbers involved were less than five babies. In the ten areas with the highest rates, the percentage of low birthweight babies ranged from 12-16% of all live births (Figure 8.15).

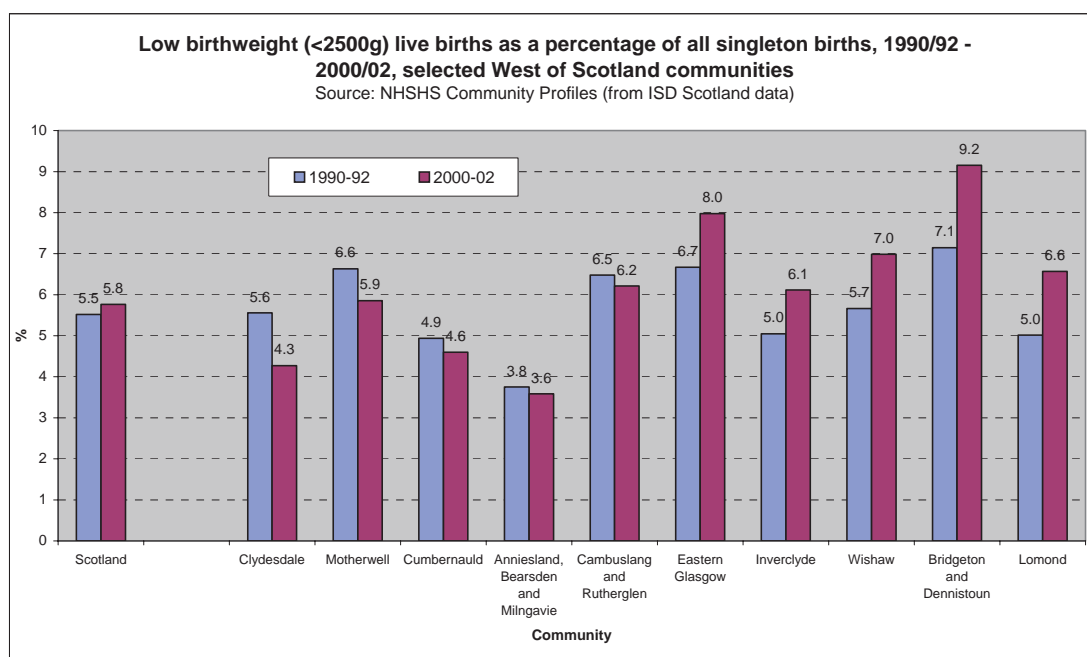
^v Note the definition used for this measure excludes twins and babies that are stillborn.

Figure 8.15



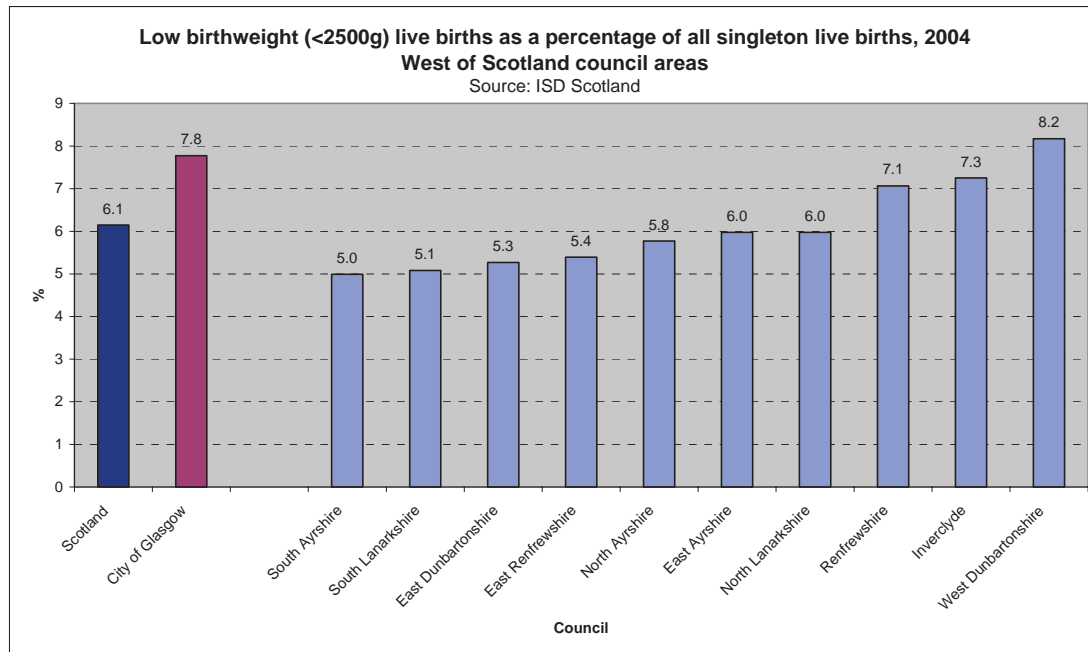
At a national level there has been little change in the rate of low birthweight babies born over the last 30 years. At a community level there have been varying trends across the West of Scotland in the last ten years (see Figure 8.16). While the percentage of low birthweight babies dropped in Clydesdale (by 23.1%) and Motherwell (by 11.7%), the percentage of low birthweight babies rose by 20% or more in Eastern Glasgow, Inverclyde, Wishaw, Bridgeton & Dennistoun and Lomond.

Figure 8.16



More recent data for 2004 show that West Dunbartonshire had the highest rate of low birthweight babies among West of Scotland councils, while South Ayrshire had the lowest rate (Figure 8.17).

Figure 8.17



In terms of deprivation, nationally, the percentage of low birthweight babies born in the 20% least affluent areas was consistently twice that in the 20% most affluent areas over the period 1991-93 to 2000-02. Data for Greater Glasgow have a similar ratio.

8.5 Infant death

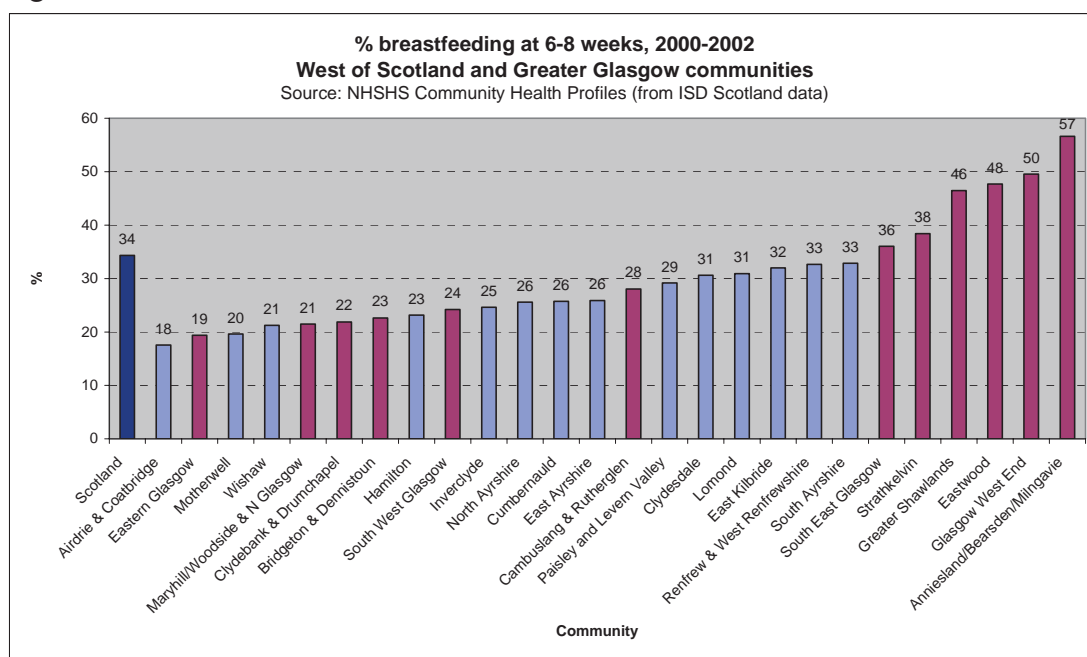
Trends in infant deaths and comparisons of infant death rates across the West of Scotland have been included in previous chapters (Chapters 2 and 3 respectively). In this brief section a short commentary on the relationship between infant deaths and deprivation is provided.

Nationally, there was a reasonably consistent pattern in the relationship between infant deaths and deprivation from 1991-93 to 1999-01. The rate of infant deaths for female infants in the most deprived 20% of areas was one and a half times the rate in the least deprived 20%. The inequality ratio for male infants was more variable but generally greater, varying from 1.6 to 2.1.

8.6 Breastfeeding

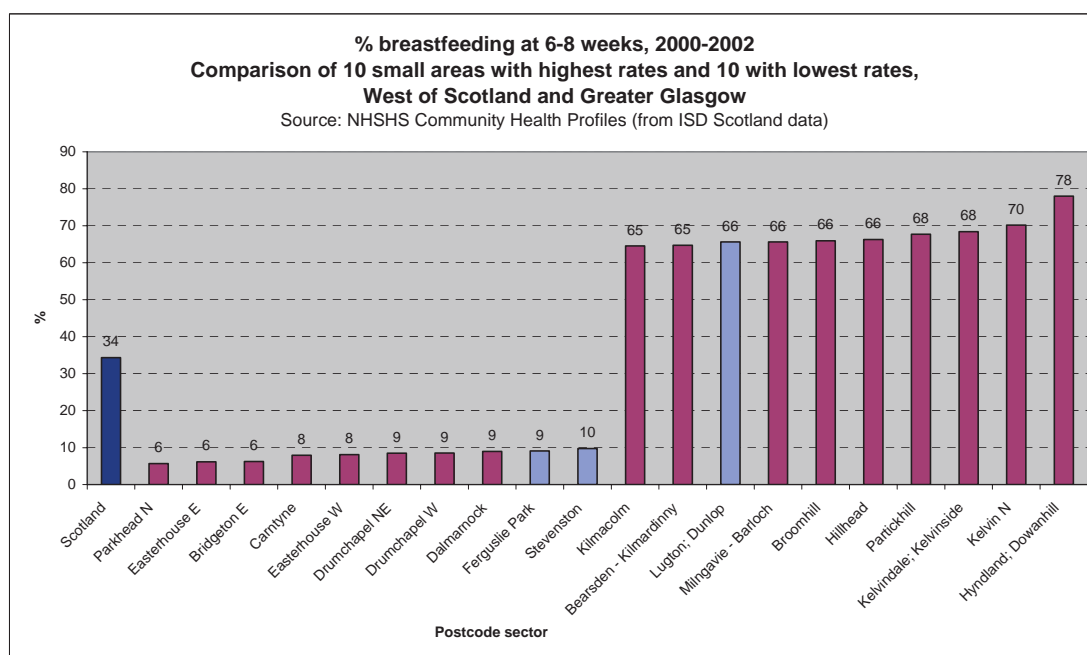
The highest breastfeeding rates in the West of Scotland (2000-02) were in Anniesland, Bearsden & Milngavie (57% of babies being breast fed at 6-8 weeks) and in six Greater Glasgow communities the rates were above the Scottish average of 34% (Figure 8.18). The lowest breastfeeding rates within a community were for Airdrie & Coatbridge (18%).

Figure 8.18



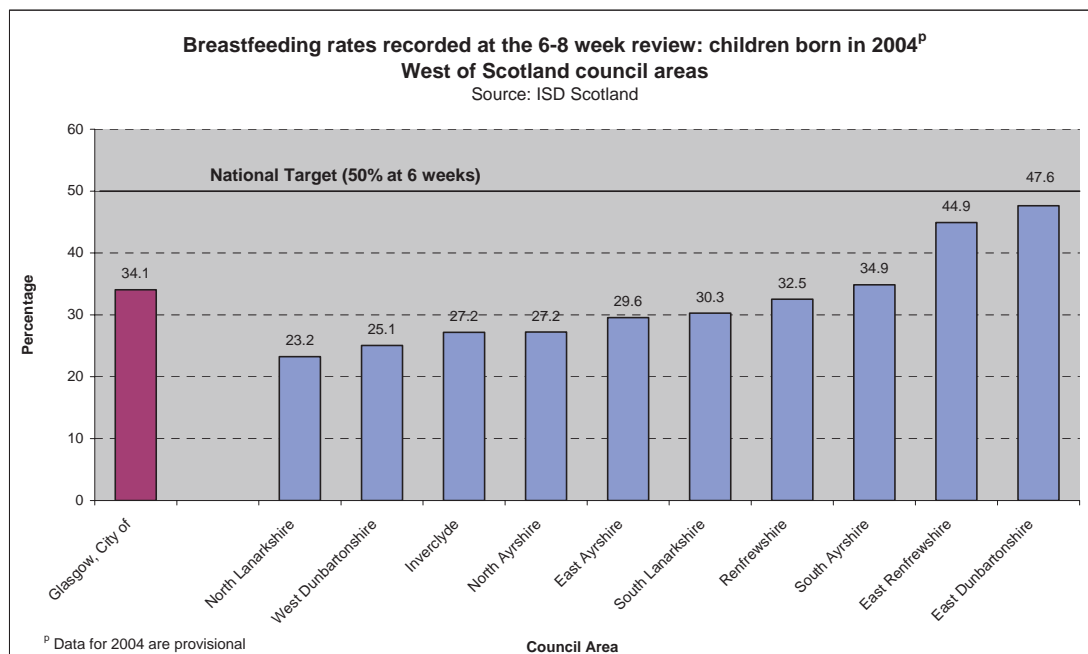
At a postcode sector level large differences in breastfeeding rates become apparent (see Figure 8.19). Breastfeeding rates range from less than 10% in the ten lowest rate areas, eight out of ten of which are in Glasgow, to above 65% in the areas with the highest rates, nine out of ten of which are in Greater Glasgow.

Figure 8.19



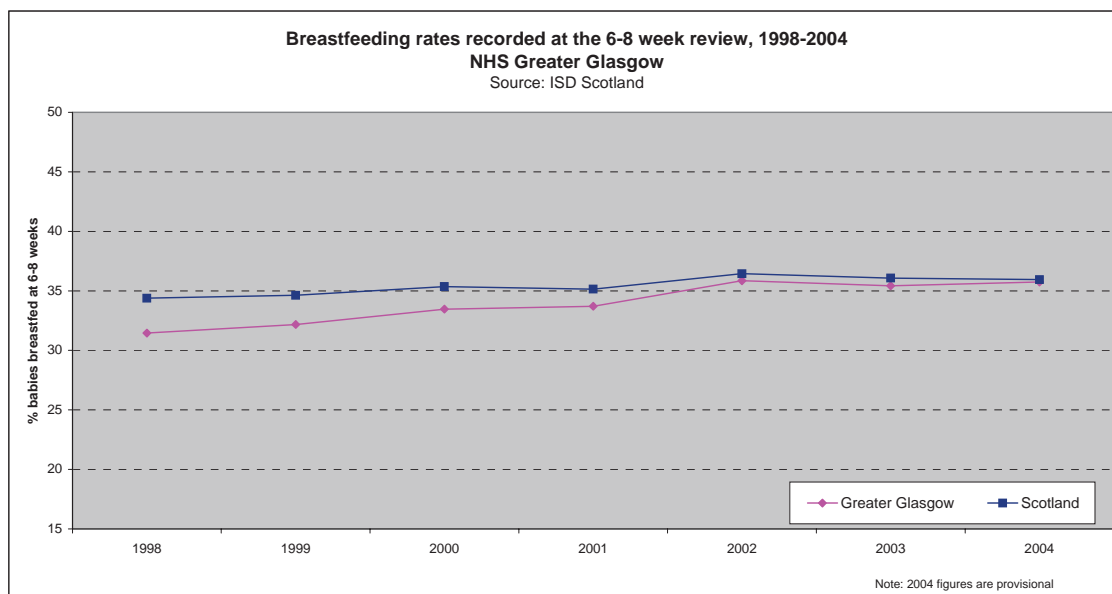
More recent data based on children born in 2004 show breastfeeding rates measured against the national target of 50% of mothers breastfeeding at six weeks (Figure 8.20). While East Renfrewshire (47.6%) and East Dunbartonshire (44.9%) are close to the target, North Lanarkshire is furthest away with only 23.2% of mothers breastfeeding at 6-8 weeks.

Figure 8.20



There has been a gradual rise in breastfeeding rates both nationally and in Greater Glasgow (see Figure 8.21), where rates have caught up with the Scottish average.

Figure 8.21



Deprivation has an important association with the levels of breastfeeding. In 2002 a national comparison showed that the percentage of mothers from the 20% most deprived areas not breastfeeding was 1.7 times higher than in the 20% most affluent areas.

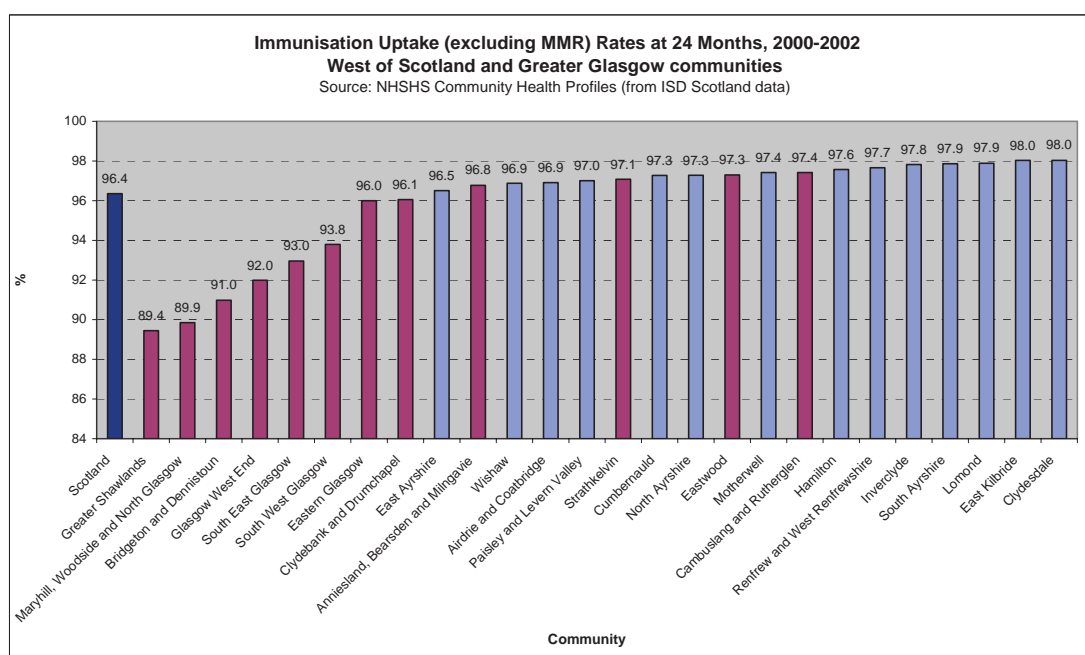
8.7 Immunisation

In this section we report separately on patterns and trends in childhood immunisation (excluding MMR) and MMR immunisation.

Childhood immunisation (excluding MMR)

Immunisation uptake for antigens other than MMR^{vi} varied widely across West of Scotland communities in 2000-02 with the lowest uptake concentrated in Greater Glasgow (Figure 8.22). The lowest rates of uptake were in Greater Shawlands and Maryhill, Woodside & North Glasgow (both below 90%), while the highest uptake rates across the West of Scotland were in East Kilbride and Clydesdale.

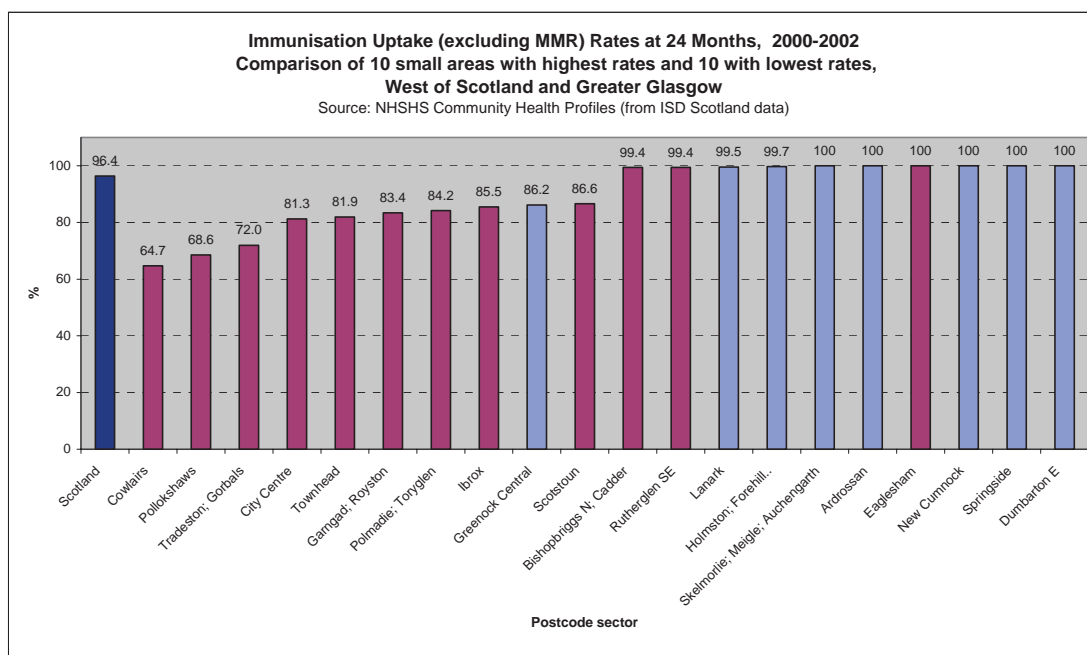
Figure 8.22



At a postcode sector level (see Figure 8.23), there were uptake rates of below 70% in two areas, Cowlairs and Pollokshaws and nine out of the ten lowest uptake areas were in Glasgow. At the other end of the spectrum, six sectors had 100% uptake.

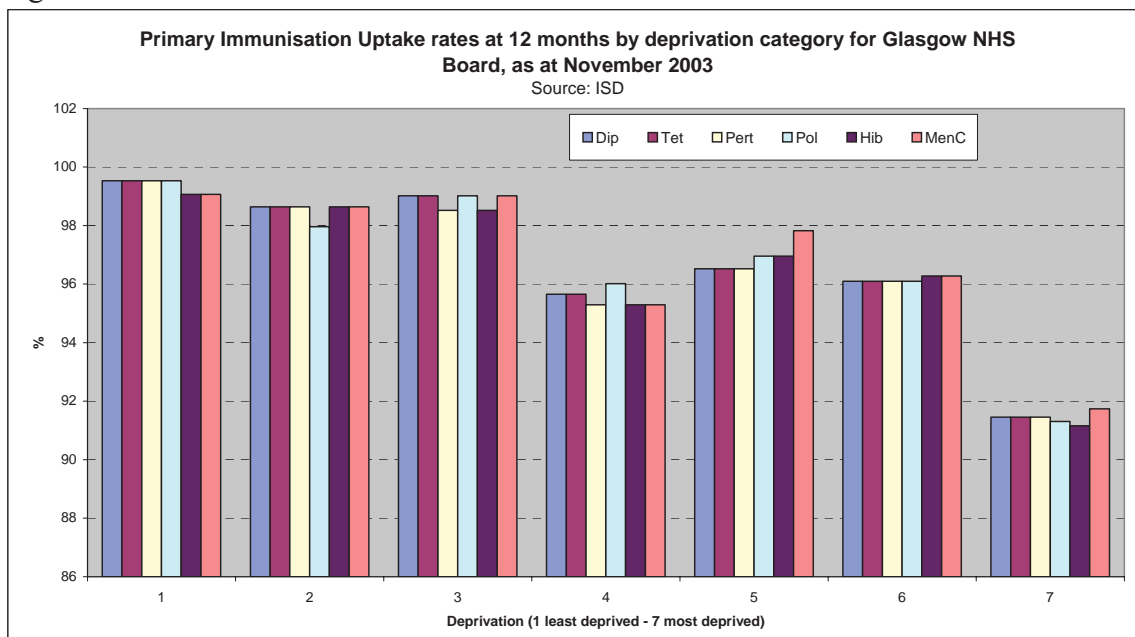
^{vi} Diphtheria, Pertussis, Tetanus, Polio and Hib (abbreviation of *Haemophilus influenzae type b*).

Figure 8.23



At a national level, the level of immunisation uptake (excluding MMR) has stood above 96% for the last five years with only minor fluctuations over the period. The trends in immunisation levels for Diphtheria, Pertussis, Tetanus, Polio and Hib have been similarly relatively stable for Greater Glasgow over the same period. For the main primary immunisations with the exception of MMR, immunisation rates tend to be lower in the most deprived areas (Figure 8.24).

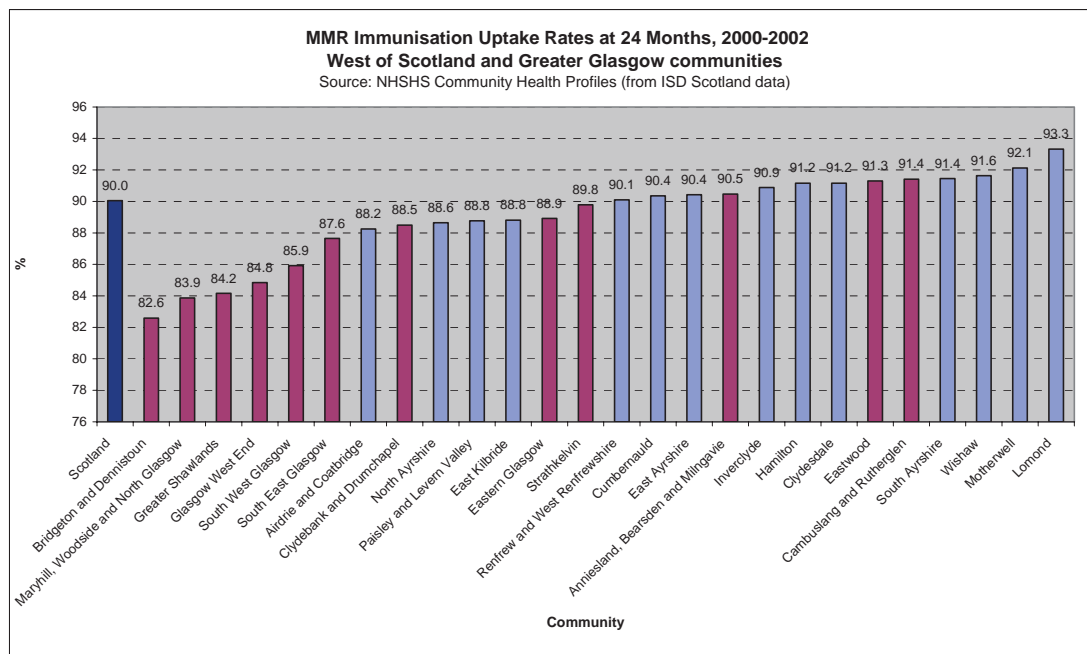
Figure 8.24



MMR immunisation

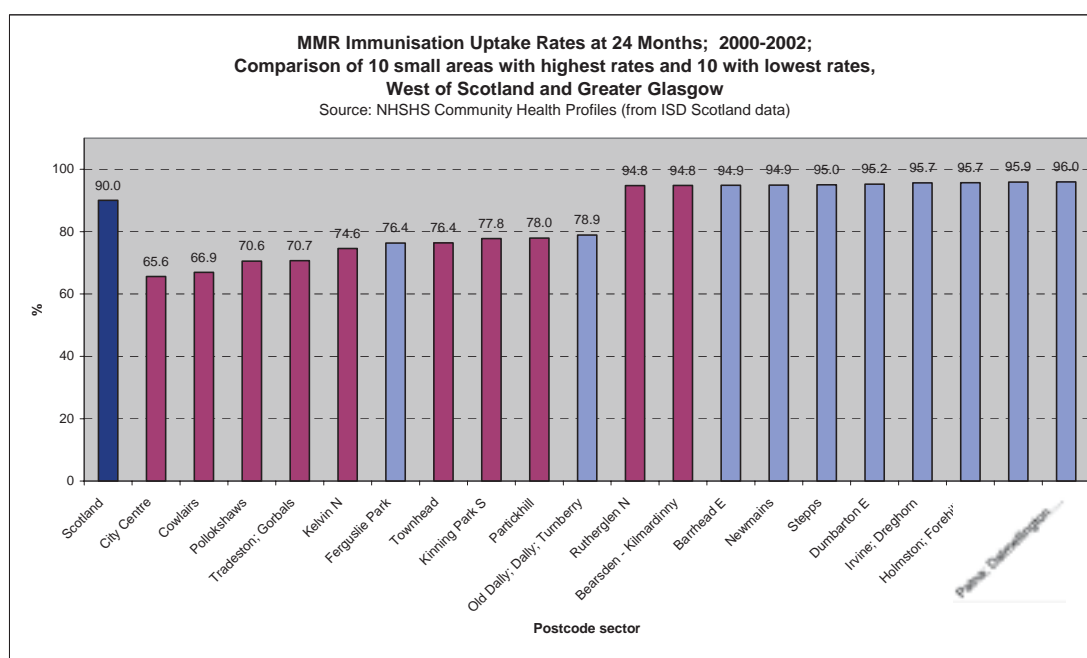
MMR immunisation uptake rates at 24 months varied between 82.6% and 93.3% in 2000-02 across West of Scotland communities with the six communities with the lowest immunisation uptake all being in Glasgow (Figure 8.25).

Figure 8.25



At a postcode sector level (Figure 8.26), the uptake rates in some areas drop below 80% and in two areas, the City Centre and Cowleirs, the rates were below 70% (although in the former the actual numbers of children living in this area in the period was very small).

Figure 8.26



Recent national trends indicate that MMR immunisation uptake rates at 24 months (which dropped between 2000 and 2001 from 93.2% to 88.5% and dropped further to 86.8% in 2003) are starting to rise again – up to 88.3% in 2004. The same pattern is apparent in Greater Glasgow, which, while having a lower uptake rate than the national average, has shown an increase in the most recent year of published figures (87.1% uptake in 2004, a rise of 1.1% on the previous year). Lanarkshire, Ayrshire & Arran and Argyll & Clyde NHS Board areas all show similar increases in uptake in 2004.

There is no clear pattern of uptake of MMR by deprivation.

8.8 Associations between maternal and early years indicators and related socio-economic factors

An analysis of the associations between a range of maternity/child related indicators^{vii} from NHS Health Scotland's Community Profiles produced some notable, if unsurprising, results. The following is a summary of the main results, which are based on a set of postcode sector level correlation analyses of the aforementioned indicators:

- There is a strong correlation between the average **age of first time mothers** and **breastfeeding rates** at 6-8 weeks. As average maternal age increases the percentage of mothers' breastfeeding increases.
- There is a highly significant negative correlation between **age of first time mothers** and **smoking during pregnancy**: the lower the average age of a first time mother, the higher the probability of smoking during pregnancy.
- **Lone parent households** are correlated with **age of first time mothers**: as the average age of a first time mother increases the percentage of lone parent households decreases.
- There is a high correlation between **teenage pregnancy rates** and **smoking during pregnancy**: the higher the rate of teenage pregnancy, the higher the proportion of mothers smoking during pregnancy.
- A positive correlation is shown between **lone parent households** and **smoking during pregnancy**: as the percentage of mothers smoking at hospital booking increases, so too does the percentage of lone parent households in that sector.
- There is also a negative correlation between **smoking during pregnancy** and **breastfeeding**: the higher the breastfeeding rates, the lower the percentage of mothers who smoke during pregnancy.

^{vii} Annual birth rate, average age of first time mothers, teenage pregnancy rate, low birthweight babies, smoking during pregnancy, breastfeeding, lone parent households and children in workless households.

- There is a strong positive correlation between **teenage pregnancy rates** and **lone parent households**.
- There is, perhaps not surprisingly, an extremely high, significant positive correlation between **lone parent households** and **children in workless households**. Given this correlation, it is predictable that children in workless households display the same set of associations as lone parent households with other maternal and early years indicators.
- For example, **children in workless households** (and **lone parent households**) display a strong negative correlation with **breastfeeding rates**. As the percentage of children in workless households increases, the percentage of mothers who are breastfeeding at 6-8 weeks decreases.

The analysis described was carried out for postcode sectors across Scotland, but there is no reason to believe that the associations described are not valid for the Glasgow area. The strong associations between lone parent households and children in workless households and maternity related indicators emphasise the importance of the interaction between social, cultural and economic factors and health behaviours.

Summary

- Teenage pregnancies for 13-19 year olds have reduced nationally and, although the gap (compared to Scotland) has narrowed, Glasgow still has a higher than average teenage pregnancy rate. Much higher teenage pregnancies rates tend to occur in more deprived areas.
- There is a gap of ten years in the age of first time mothers across West of Scotland communities. Trends indicate that proportionately more and more babies are being born to older mothers – in 2004 almost 50% of births were to mothers of 30 years of age or older. Conversely, however, there has been no reduction in the percentage of births to mothers under 20 years of age, which is 8% nationally, but varies widely across the West of Scotland. Deprivation and age of mother at first birth have a strong association, with a difference of approximately 12 years in the age for starting a family between the most and least deprived quintile.
- Despite reductions nationally and across deprivation groups, rates of smoking in pregnancy remain polarised between very high rates in the more deprived parts of Glasgow and much lower rates in the more affluent areas.
- Over a 30-year period there has been little change in the rate of low birthweight babies born nationally. Deprivation has a strong association with low birthweight, with the most deprived 20% of areas having double the low birthweight rate of the least deprived 20% of areas.
- There are large variations in breastfeeding rates especially at a small area level, with the areas with the highest and the lowest levels breastfeeding both concentrated in Glasgow. There have been modest rises in breastfeeding over the last few years and the breastfeeding rate in Greater Glasgow is now at the level of the Scottish average.
- The lowest uptake of primary immunisation tends to be concentrated in Glasgow, and lower uptake, with the exception of MMR, is associated with greater deprivation. With the exception of MMR, primary immunisation uptake has remained relatively stable for the last five years. The MMR uptake rate, which was affected by the controversy over the safety of this form of immunisation, dropped between 2000 and 2001, but has shown recent signs of recovery.
- The strong associations between socio-economic factors (such as lone parent households and children in workless households) and maternity-related indicators emphasise the importance of the interaction between social, cultural and economic factors and health behaviours.

References

¹ NHS Health Scotland. Community Health and Well-being Profiles. 2004
<http://www.scotpho.org.uk/communityprofiles>

² NHS Health Scotland. Constituency Health and Well-being Profiles. 2004
<http://www.scotpho.org.uk/constituencyprofiles>

³ Scottish Executive. Inequalities in Health – Report of the Measuring Inequalities in Health Working Group. 2003
<http://www.scotland.gov.uk/Publications/2004/03/19045/34233>

⁴ Judge K, Bauld L. Health inequality targets in Scotland: Smoking during pregnancy (internal report). Glasgow: University of Glasgow, 2006

Summary

It is estimated that there were more than 6,000 children in Glasgow living with a parent with a substance misuse problem in 2003.

In Glasgow, 2,500 children are currently looked after by the local authority – and more than double that are looked after by all the West of Scotland councils. Rates are rising.

Almost 1,000 children in the West of Scotland are on a child protection register.

In 2001, more than 100,000 children in the West of Scotland were living in households where neither parent was in employment.

Significant proportions of adolescents across the West of Scotland smoke, drink and take drugs. Although trends suggest smoking levels are decreasing, the opposite is true of alcohol.

One fifth of pre-school children are either overweight or obese.

The dental health of children is slowly improving. However, throughout Greater Glasgow between 40% and 70% of children aged five have decayed teeth.

Rates of road traffic casualties among children fell significantly in Glasgow and the West of Scotland between 1999 and 2003.

“Just over one in twenty children in Glasgow are estimated to be living with at least one parent who has a substance misuse problem.”

“In the ten areas with the lowest rates, the percentage of children in workless households ranges from 2% to 4%, while in the ten areas with the highest rates, all of which are in Glasgow, the percentages of children in workless households vary from 58% to 64%.”

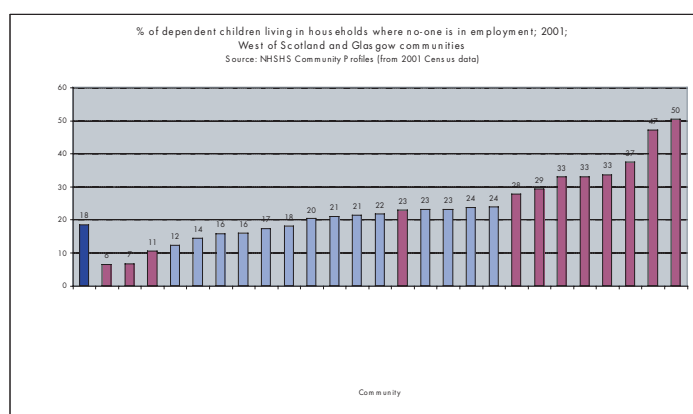
“In the most recent year for which data have been published – 2003/04 – the percentage of five year-olds without dental decay rose to 51% nationally, and to 42% in Greater Glasgow.”

“There has been a marked increase in teenage alcohol related/attributable hospitalisations over a ten year period between 1989/91 and 1999/2001.”

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 9: Children and adolescents

This chapter considers a number of indicators relevant to the health of children and adolescents in Glasgow and the West of Scotland. Some of the data presented in the previous chapter (Chapter 8: Pregnancy, childbirth and early years) is also clearly relevant to this topic (e.g. teenage pregnancies, teenage abortions).

The chapter is divided into two sections. First, we consider information relating to the circumstances in which children in Glasgow and the West of Scotland live and are brought up (their ‘social environment’: this includes children of substance misusers, children looked after by a local authority, child protection register data and children in workless households). Second, we examine a number of indicators which could be classified as ‘behavioural’ in nature. These include obesity, alcohol, smoking and drug-taking, and dental health. Clearly, however, this division is artificial, as many of these behavioural factors are obviously influenced by the environment in which children are raised and some will relate to the behavioural influences of the parents rather than the children. The distinction is employed merely to enable better structuring of the chapter.

9.1 Children’s social environment

Children affected by parental substance misuse

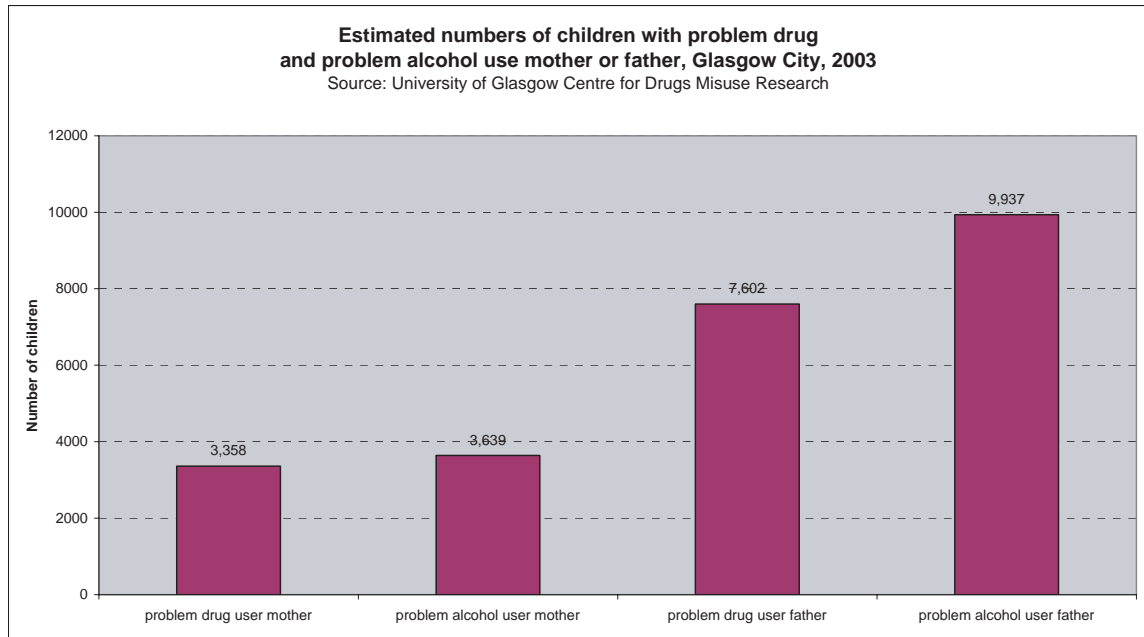
The figures presented here are estimates derived by the University of Glasgow Centre for Drugs Misuse Research in a report commissioned by Glasgow City Council Addictions Team¹. They are reproduced here with the kind permission of the Centre and the City Council. However, it should be emphasised that the figures are statistically modelled estimates derived from a number of different data sources. It is extremely difficult to gauge the accuracy of the findings and, as with any modelled estimates, the information should be interpreted with caution.¹

The report by the Centre for Drugs Misuse Research calculated, for Glasgow in 2003, estimates of the total numbers and proportions of children with parents with ‘problem drug’ or ‘problem alcohol’ use, including estimates of children *living with* parents with substance misuse problems. A summary of the work shows that:

¹ Drugs misuse figures were calculated through combining data from a national drugs misuse prevalence report (published in 2005 and referenced within Chapter 7: Behaviour), and the Drug Outcomes Research in Scotland (DORIS) study (see www.gla.ac.uk/centres/drugmisuse/DORIS.html). The sample size for Glasgow in the latter study was only 240. Alcohol figures were derived from Glasgow City Council social enquiry reports and the same national drugs misuse report: the former allowed calculation of the ratio of problem drug users to problem alcohol users, which was then applied to the latter. Information on the numbers of children was again derived from the fairly small DORIS cohort.

- An estimated 9,940 children in Glasgow have a ‘problem alcohol use father’; 7,600 have a ‘problem drug use father’; 3,360 have a mother with drugs misuse problems; 3,640 have a mother with alcohol misuse problems. These categories, illustrated in Figure 9.1, are not mutually exclusive. However, the majority of children do not live with these parents.

Figure 9.1



- The total, estimated, number of children *living with* a ‘problem drug use’ parent in Glasgow is almost 3,500 (3.1% of all children aged 0-15). The breakdown (shown as percentages of all children) by each council social work action team area is presented in Figure 9.2. The equivalent figures for children with a ‘problem alcohol use’ parent are shown in Figure 9.3. The total figure in this category is just under 3,800 (3.4% of children in Glasgow).

Figure 9.2

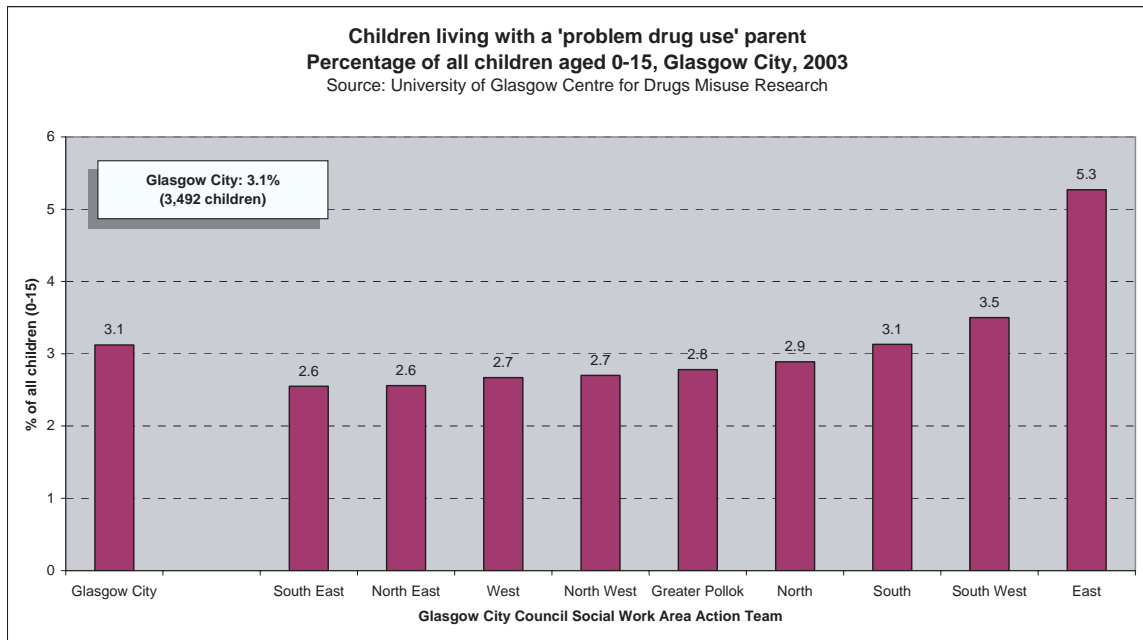
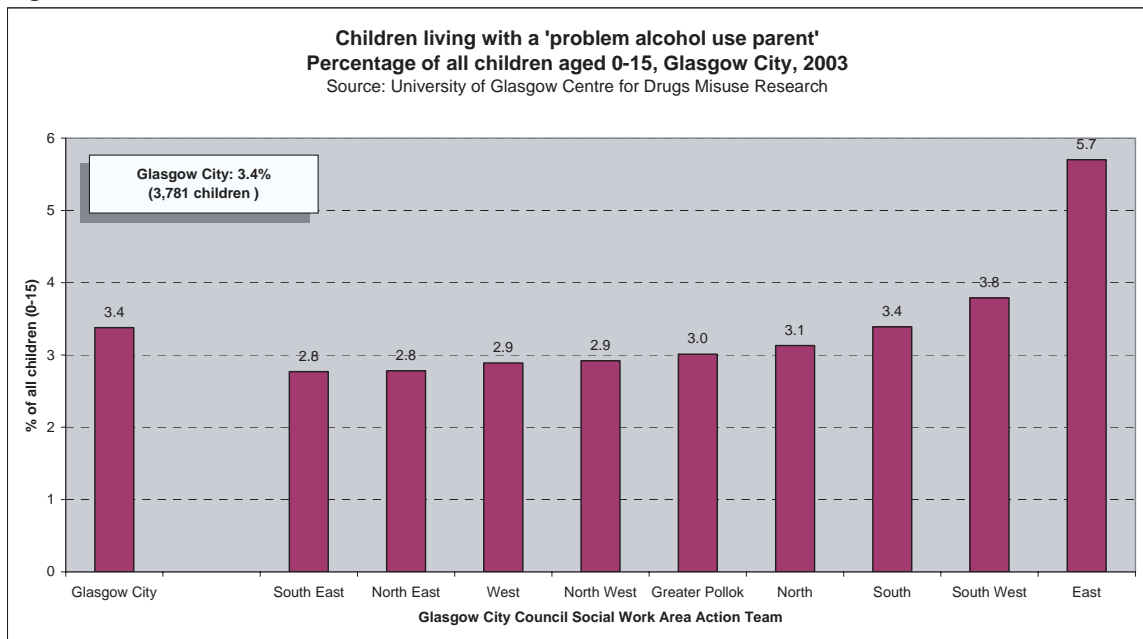
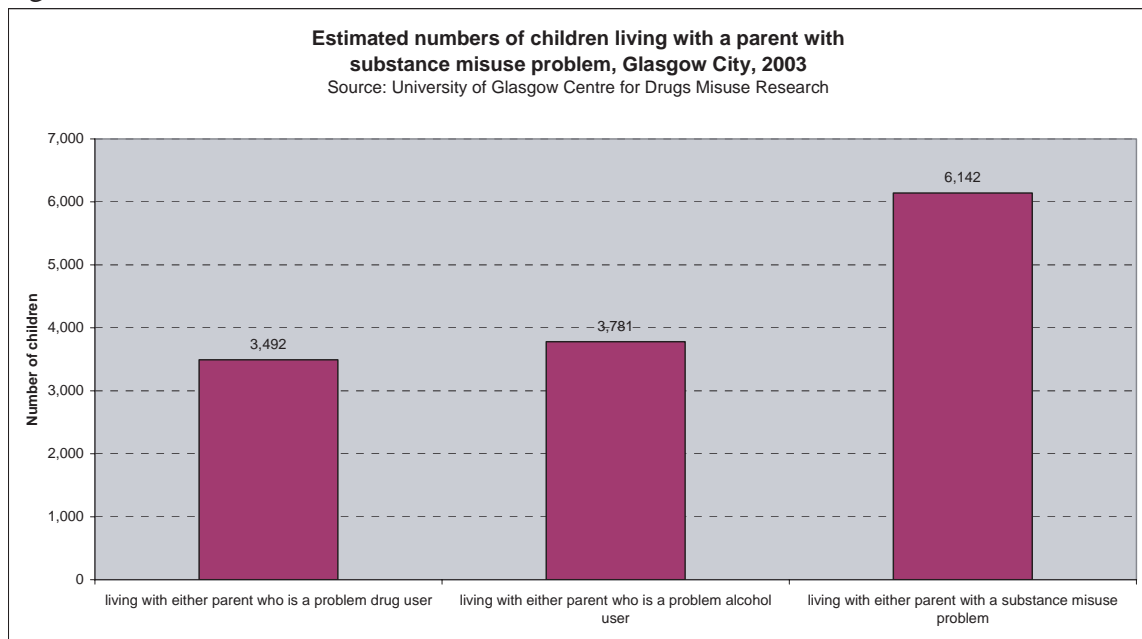


Figure 9.3



In all, more than 6,000 children in Glasgow are estimated to be living with at least one parent who has a substance misuse problem (Figure 9.4). This equates to just over one in twenty children in Glasgow (5.5%).

Figure 9.4



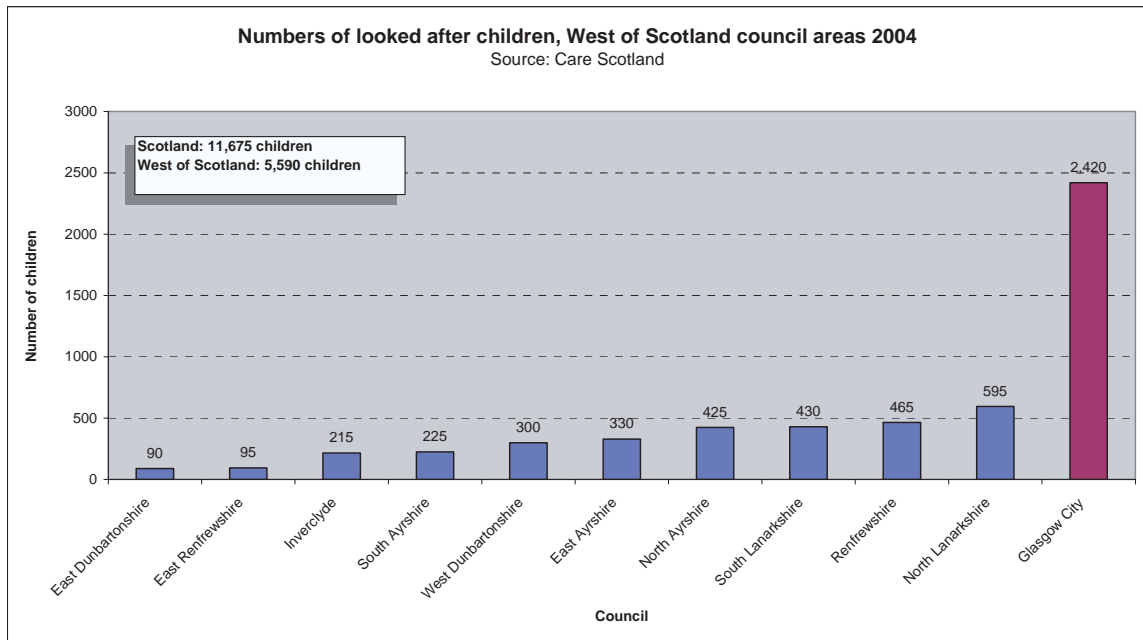
These figures are considered further at the end of the chapter.

Looked after children

In 2004, more than 11,500 children in Scotland were being looked after by a local authorityⁱⁱ. Just under half of these children were being looked after within a West of Scotland council area, with the figure for Glasgow at just under 2,500 (Figure 9.5).

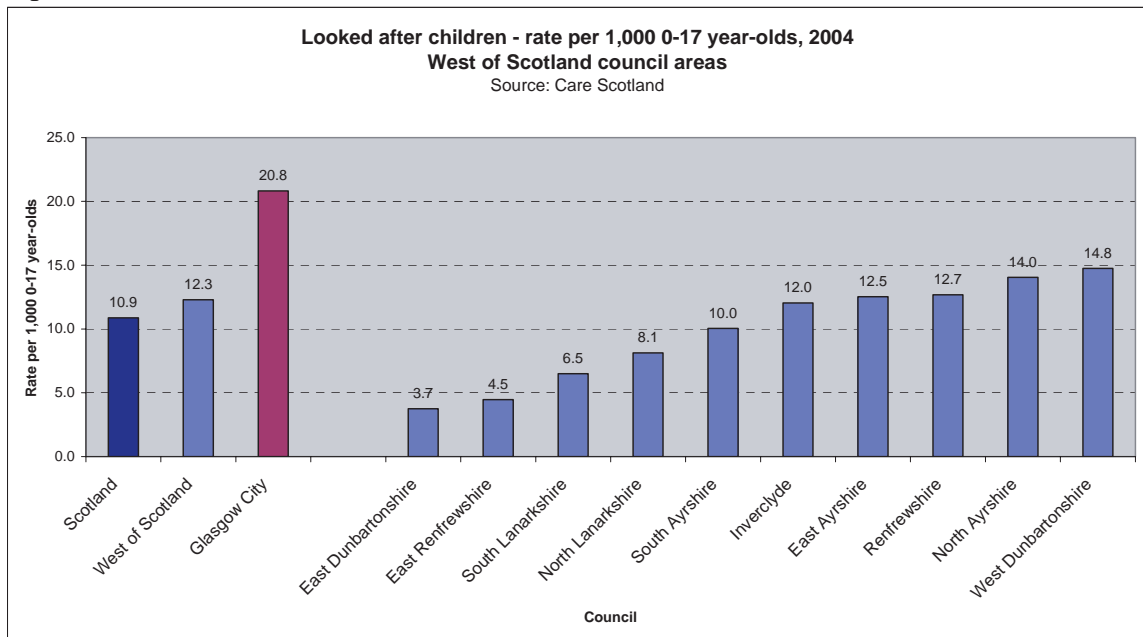
ⁱⁱ Note that, as with the other indicators presented in this report, a full definition of looked after children is included in Appendix 1.

Figure 9.5



Glasgow stands out as having the highest rates not only within the West of Scotland but across the whole country. The rate of 20.8 per 1,000 children is almost twice the national figure of 10.9 per 1,000 and is well in excess of the overall figure for the West of Scotland (12.3). The lowest and highest rates among the other West of Scotland councils in 2004 were 3.7 per 1,000 in East Dunbartonshire and 14.8 per 1,000 in West Dunbartonshire. This is illustrated in Figure 9.6.

Figure 9.6



Rates have increased slowly but consistently over the past few years. Across the whole country, rates rose from 9.5 in 1998 to 10.9 in 2004, and in Glasgow the rate increased from 18.2 to 20.0. This is an increase of about 14% which is similar to the national figure. These trends are illustrated in Figure 9.7 but note that these are expressed as three year rolling averages (so differ slightly from the annual data presented above).

Recording discrepancies make it difficult to obtain an accurate breakdown of the most common reasons for children being looked after. An analysis of Glasgow City Council Social Work Department's 'CareFirst' system in April 2005 showed that of the 2,500 children in care, around 13% were recorded as being in care as a result of 'child protection orders'. These may have been issued for a variety of different reasons. Despite this caveat, we can estimate that *at least* 30% of children are looked after because of lack of parental care/desertion/abandonment, and *at least* 20% as a result of drug and/or alcohol abuse by the carer. Other reasons are listed in Figure 9.8 but, once again, these figures should be interpreted, and reported, with caution.

Figure 9.7

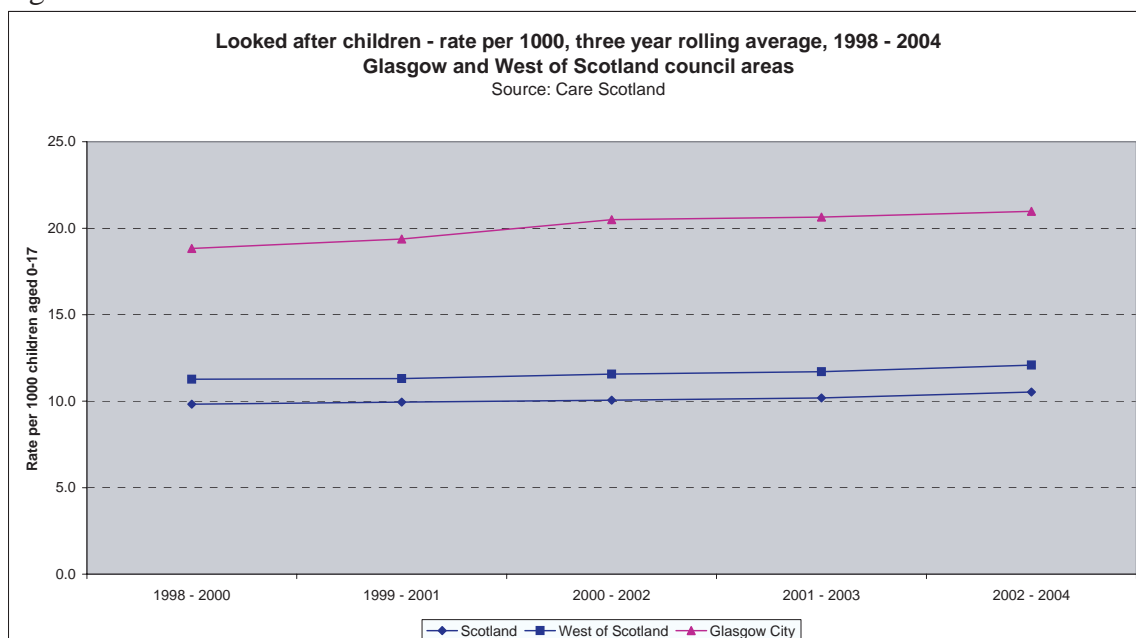
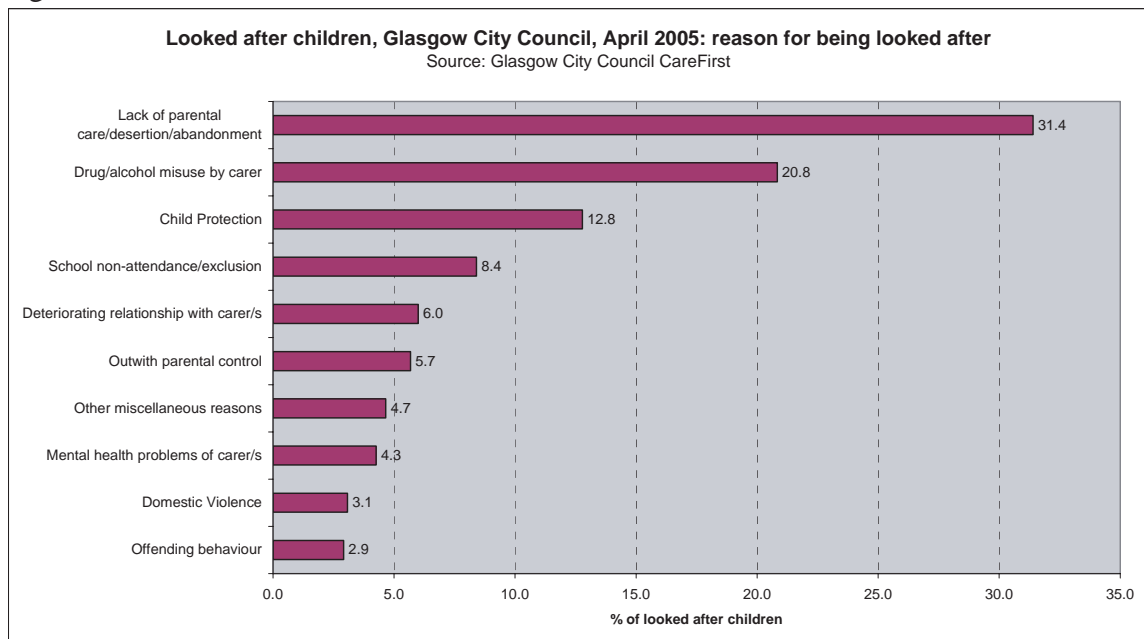


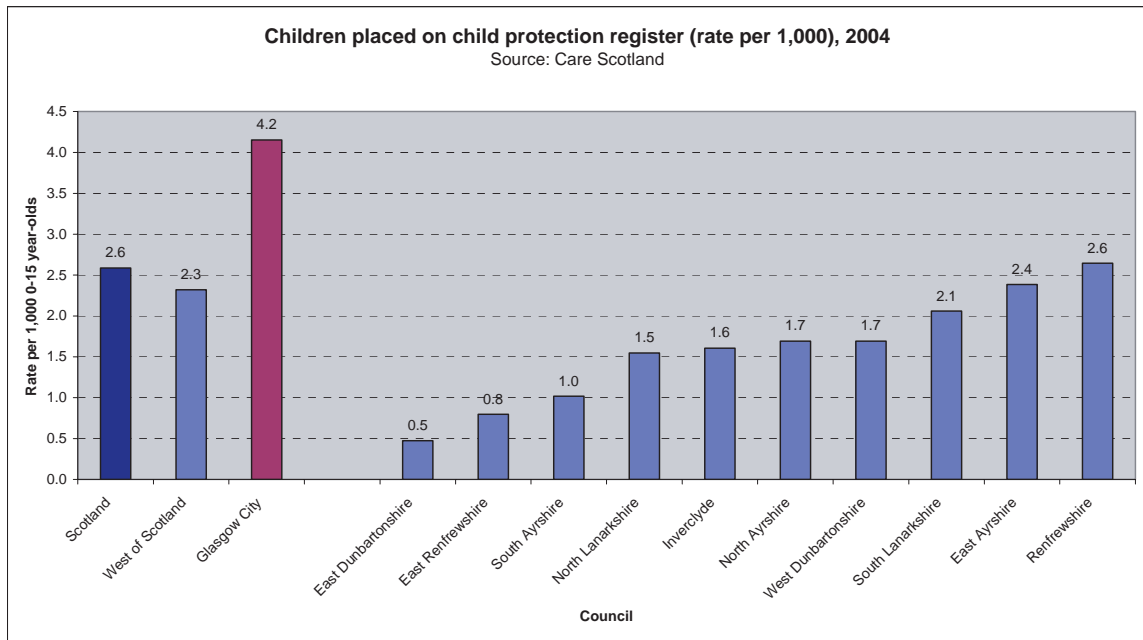
Figure 9.8



Child protection register

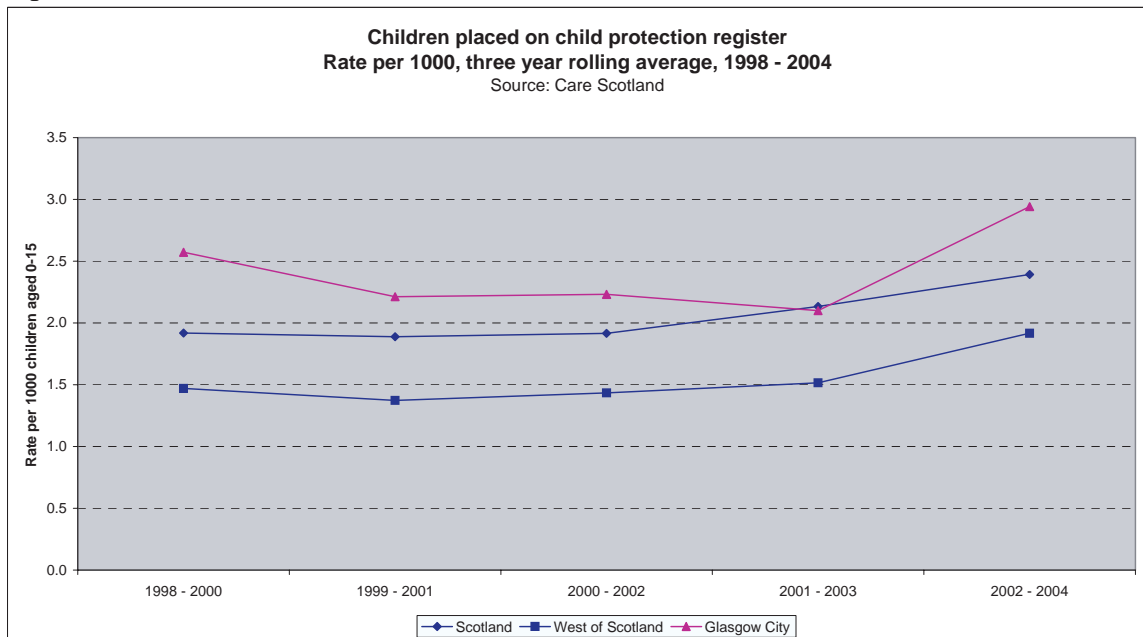
The total number of children placed on the child protection register in Scotland in 2004 was 2,440. Of these, 925 were resident in the West of Scotland, with 420 resident within Glasgow City Council boundaries. Figure 9.9 presents these numbers as a rate comparable across the different parts of the West of Scotland and, as can be seen, the figure for Glasgow (4.2 per 1,000 children aged 0-15) stands out as easily the highest. The equivalent figures across the other West of Scotland councils range from 0.5 (East Dunbartonshire) to 2.6 (Renfrewshire). The overall figure for all the West of Scotland council areas was 2.3 per 1,000.

Figure 9.9



As with looked after children, the trend is generally upward. In Glasgow, although there has been some fluctuation, the rate has increased from 2.7 in 1998 to 4.2 in 2004, with a particularly noticeable increase taking place in the last year of the analysis. The Scottish and West of Scotland figures have also increased. Trends for these three areas are illustrated in Figure 9.10 – note that these are presented as three year rolling averages and so the point prevalences differ slightly from above.

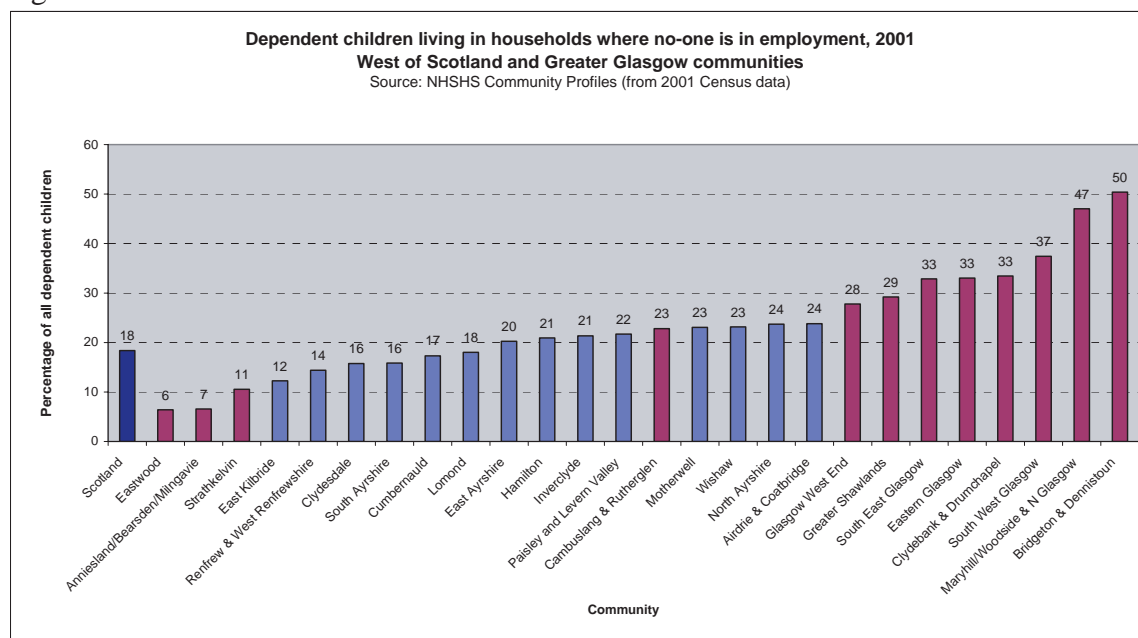
Figure 9.10



Children in workless households

Although there are individual exceptions, the proportion of children in a population living in workless households can be used as a proxy for children living in poverty. Census data reveals that in 2001, almost one in five children (18%) in Scotland lived in households where neither parent was in employment. As shown in Figure 9.11, however, the pattern across West of Scotland ‘communities’,^{iii, 2} illustrates striking differences. While in Eastwood and Anniesland, Bearsden & Milngavie only 6% and 7% of children, respectively, lived in workless households in 2001, the figure in Maryhill, Woodside & North Glasgow was 47%, and for Bridgeton & Dennistoun one in two children (50%) fell into this category. The polarity of life circumstances for children in Greater Glasgow is further emphasised by the fact that, comparing across the West of Scotland, Glasgow communities occupy the eight highest ranking positions, all of which had 25% or more of children living in workless households. In contrast, three Greater Glasgow communities had the lowest proportions of children living in such circumstances. Note that the overall figure for Glasgow (not shown in Figure 9.11) is 36%.

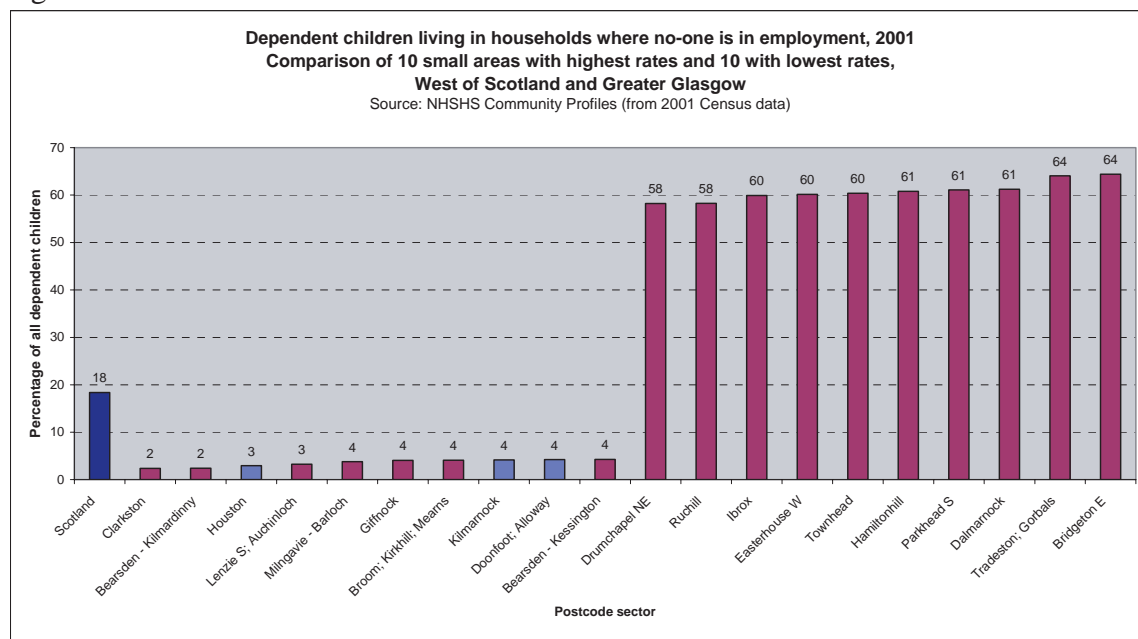
Figure 9.11



At a postcode sector level (Figure 9.12) the differences become even starker. In the ten areas with the lowest rates, the percentage of children in workless households ranges from 2% to 4%, while in the ten areas with the highest rates, all of which are in Glasgow, the percentages of children in workless households vary from 58% to 64%.

ⁱⁱⁱ These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see ‘Preface to Chapters 2-12’.

Figure 9.12



9.2 Behavioural factors

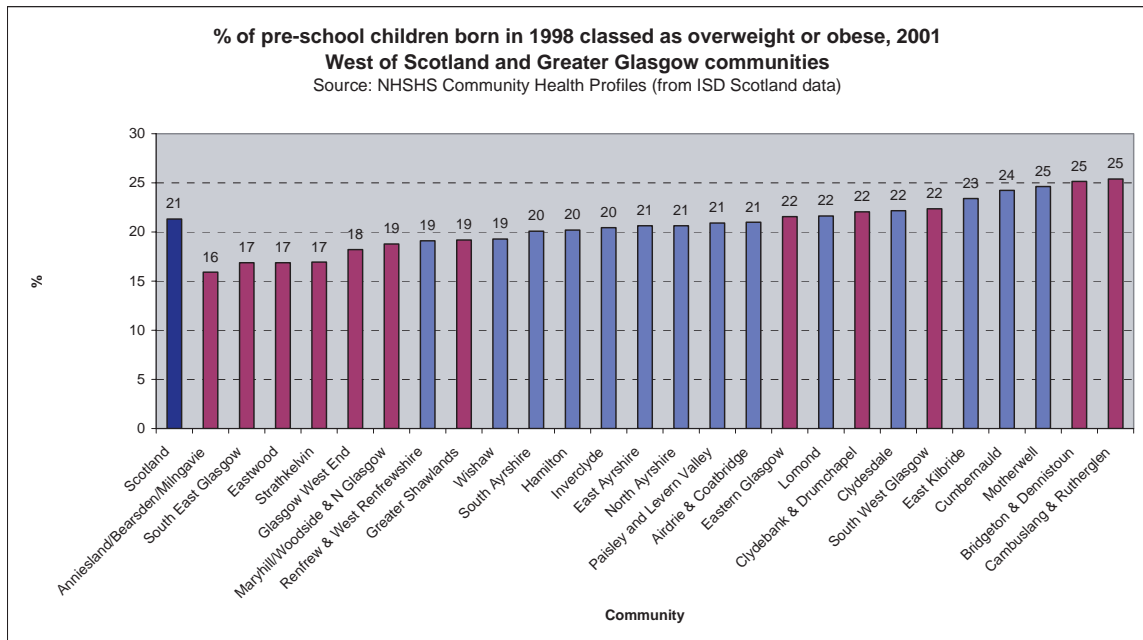
Pre-school overweight and obese children

Measurements of height and weight taken during 2001 allow us to estimate the proportion of overweight and obese pre-school children in Scotland^{iv}.

Figure 9.13 shows that, nationally, in 2001, 21% of pre-school children born in 1998 were classified as overweight or obese. Across the West of Scotland communities, the figures varied from 16% in Anniesland, Bearsden & Milngavie to 25% in both Bridgeton & Dennistoun and in Cambuslang & Rutherglen. No information was available below community level.

^{iv} Data collected by ISD Scotland's Child Health Surveillance System at the 39-42 month review of children born in 1998. Covers ten out of the 15 Scottish NHS Boards. Proportion of overweight/obese children based on calculation, and ranking, of body mass index (BMI): overweight defined as children at or above the 85th centile; obese defined as at or above the 95th centile.

Figure 9.13



More recent data on children in Greater Glasgow born in 2001, and reviewed in 2004/05, show a similar picture, with an estimated 20% of children assessed as overweight or obese, including 8% who were classed as obese³.

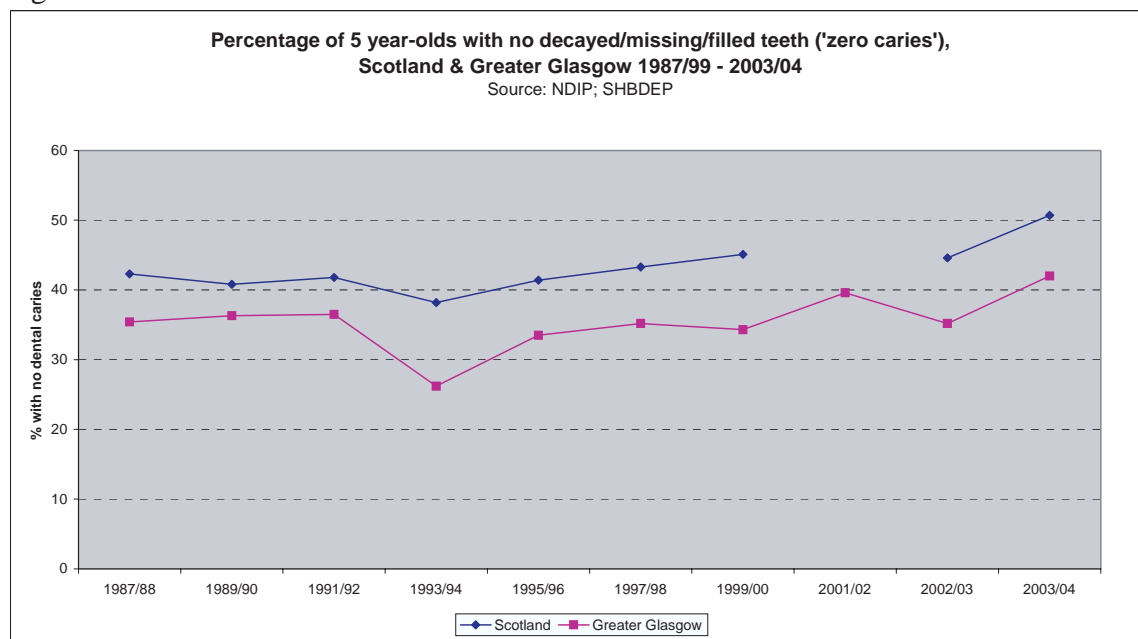
Dental health of children

At a national and NHS Board level the SHBDEP^v, and latterly the NDIP^{vi}, surveys have been used to monitor trends in the dental health of five year-olds since 1987/88. This is illustrated for Scotland and Greater Glasgow in Figure 9.14.

^v Scottish Health Boards' Dental Epidemiological Programme.

^{vi} National Dental Inspection Programme.

Figure 9.14



The percentage of five year olds with no dental decay ('zero caries' experience^{vii}) fluctuated between 1987/88 and 2002/03 but showed little real change on a national basis. However, in the most recent year for which data have been published – 2003/04 – the percentage of five year olds without dental decay rose to 51% nationally, and to 42% in Greater Glasgow.

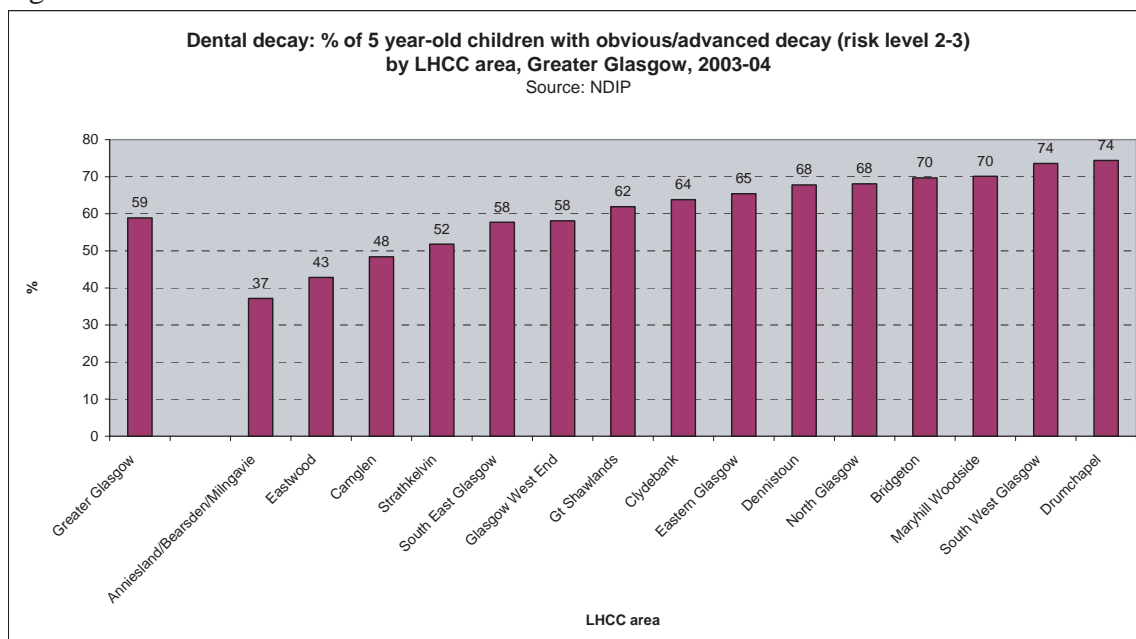
Although such an increase is obviously welcome, this still means that in Greater Glasgow almost six out of ten five year olds have experienced some level of dental decay. Figure 9.15 shows this figure broken down by LHCC area^{viii} within the city. As can be seen, the proportion of primary one school children with 'obvious or advanced decay'^{ix} varies from 38% in the more affluent Anniesland, Bearsden & Milngavie LHCC area, to 75% in the more deprived Drumchapel area.

^{vii} Defined as no decayed, missing or filled teeth.

^{viii} Local Health Care Cooperative. LHCCs have now been replaced by the new Community Health Partnerships (CHPs) (Community Health and Care Partnerships (CHCPs) within Glasgow).

^{ix} As defined by NDIP risk levels 2 or 3: risk level 2 – "obvious evidence of decay experience and/or poor oral hygiene"; risk level 3 – "obvious advanced and/or widespread current decay".

Figure 9.15



It is known that the most common reason for admission to hospital among children is for dental problems^{4,5}. Within Scotland, between 1999 and 2002, there were almost 51,500 acute hospital admissions for dental related problems among children aged 0-15 years, almost 13,000 per year on average. Of that national four-year figure of 51,500, more than half of these dental admissions (just over 27,000) took place within a West of Scotland community, including almost 11,000 within Greater Glasgow.

Figure 9.16 shows that proportionally (i.e. as a rate per 100 children) East Ayrshire and Maryhill, Woodside & North Glasgow recorded the highest rates among West of Scotland communities (around 10.5 per 100 children over the four-year period), with Eastwood and Anniesland, Bearsden & Milngavie having the lowest (2.1 and 3.0 respectively). Trends at a community level (for Greater Glasgow communities only) are shown between two points of time (1991-94 and 1999-2002) in Figure 9.17. Although, nationally, there has been a slight increase (from 4.7 to 5.2 per 100 over four years), no clear pattern in trends is evident across the communities.

Figure 9.16

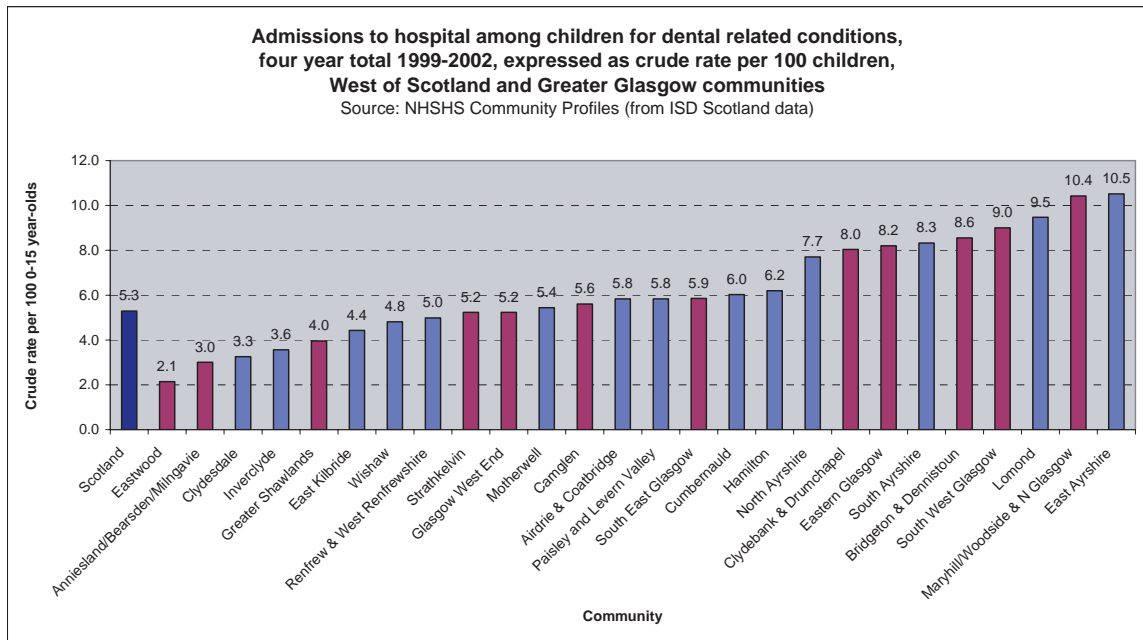
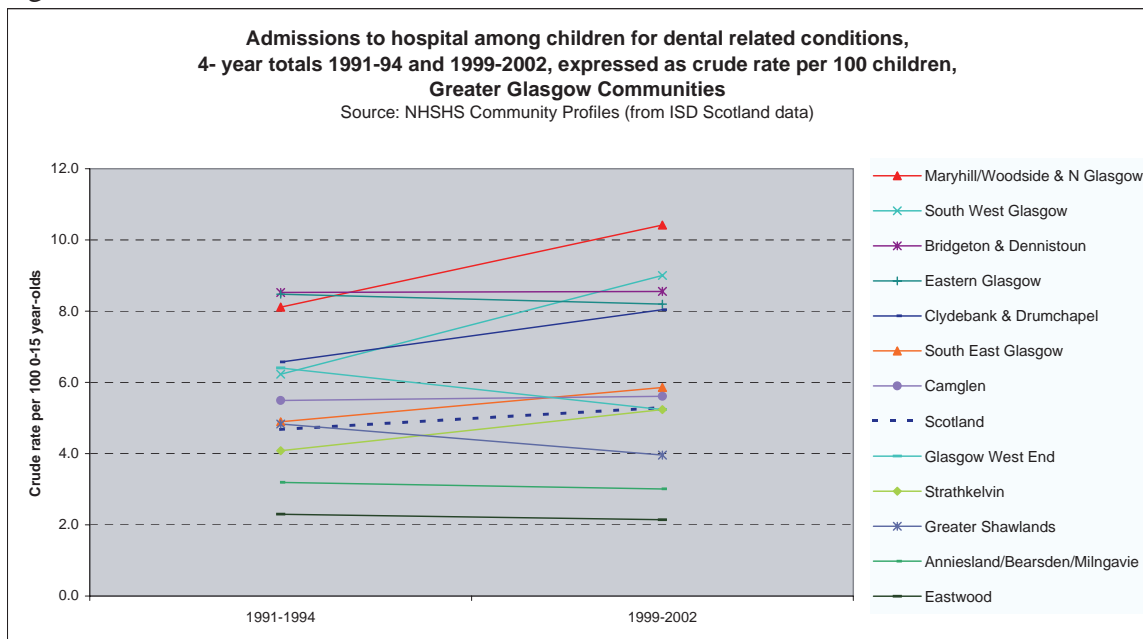


Figure 9.17



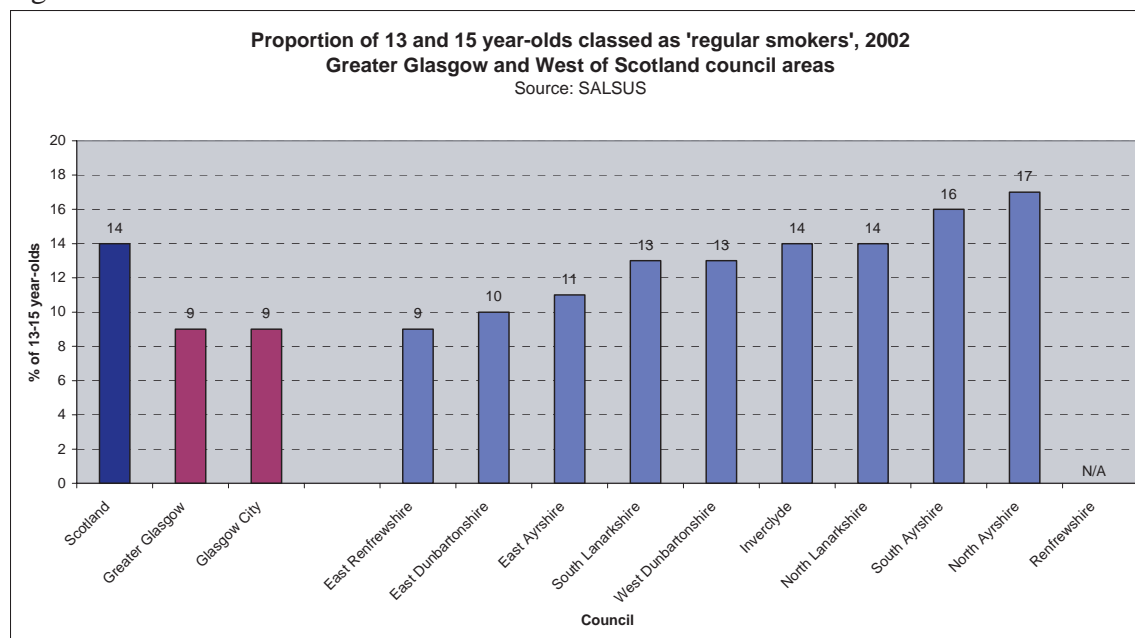
Adolescent smoking, drinking and drug-taking

Analysis of the 2002 Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) gives an indication as to the current levels of smoking, drinking and drug-taking among adolescents (defined as 13 and 15 year olds).

Smoking

Nationally, 14% of 13 and 15 year olds were classed as being 'regular smokers' in the 2002 survey. At 9%, the proportion in Glasgow (both Greater Glasgow and Glasgow City) was lower than the national figure, while other areas in the West of Scotland had significantly higher rates e.g. 17% in North Ayrshire^x (Figure 9.18).

Figure 9.18

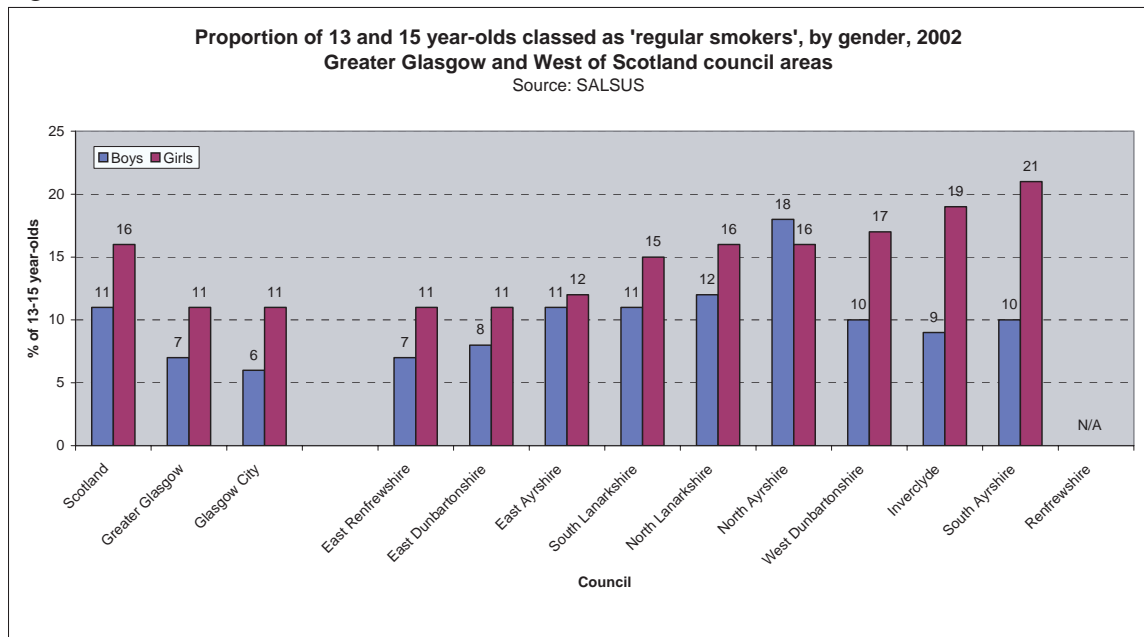


Generally, significantly higher rates of smoking were recorded among 13 and 15 year old girls than boys e.g. 11% of girls compared to 7% of boys in Greater Glasgow (Figure 9.19).

Local trends in smoking rates among 13 and 15 year olds are not available from SALSUS. However, national trends (which may also be reflected at a local level) show a decrease in smoking prevalence among 15 year olds since 1996: for boys the prevalence rate dropped from 30% to 15%, and for girls from 30% to 24% (however, the latter is not statistically significant). Rates for both sexes remained flat between 2000 and 2004.⁶

^x For the three examples given (Glasgow City, Greater Glasgow and North Ayrshire), statistical significance levels (reported in the 2002 SALSUS local reports) were calculated separately for the two ages (13 and 15). Glasgow City and Greater Glasgow had significantly lower rates for pupils aged 15 (not 13), and similarly, North Ayrshire had significantly higher rates among pupils of that age only.

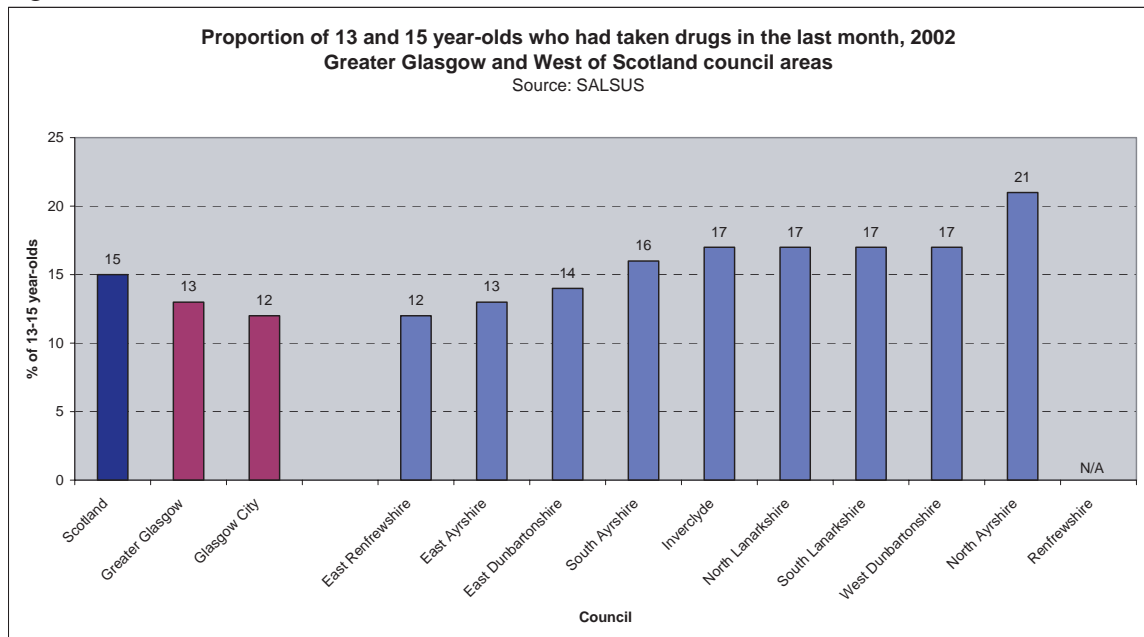
Figure 9.19



Drugs

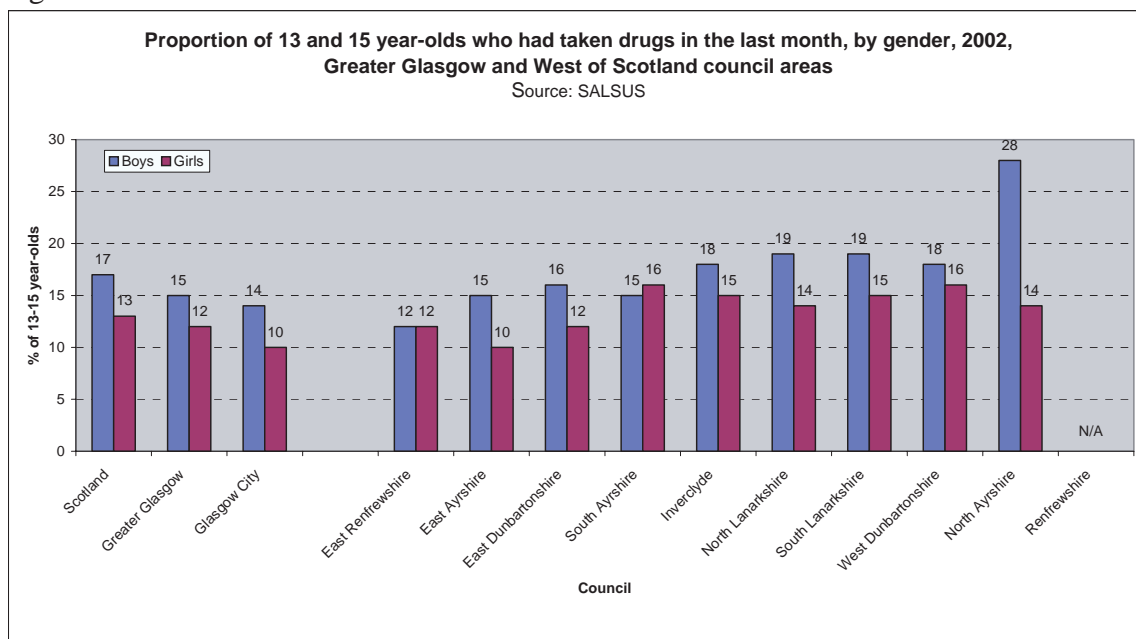
Nationally, 15% of 13 and 15 year olds reported having taken drugs in the month prior to the survey, ranging from 12% in Glasgow to 21% in North Ayrshire (Figure 9.20), figures which were, respectively, significantly lower and higher than the national estimates^{xi}. Within Glasgow, the rate was slightly higher among boys (Figure 9.21).

Figure 9.20



^{xi} In this instance, significance levels relate to 15 year olds only.

Figure 9.21



Data on drug use has only been collected in SALSUS since 1998 so, even at a national level, trends (which have been fairly flat) are limited.

Alcohol

The majority of 13 and 15 year olds across Scotland (including Glasgow and the West of Scotland) have tried alcohol (Figure 9.22), and around one in three were reported in the survey as having drunk alcohol in the previous week (Scotland: 35%; Glasgow City and Greater Glasgow: 29% and 30% respectively (both significantly lower than the national figure) – Figure 9.23), with little difference evident between the sexes (Figure 9.24).

Figure 9.22

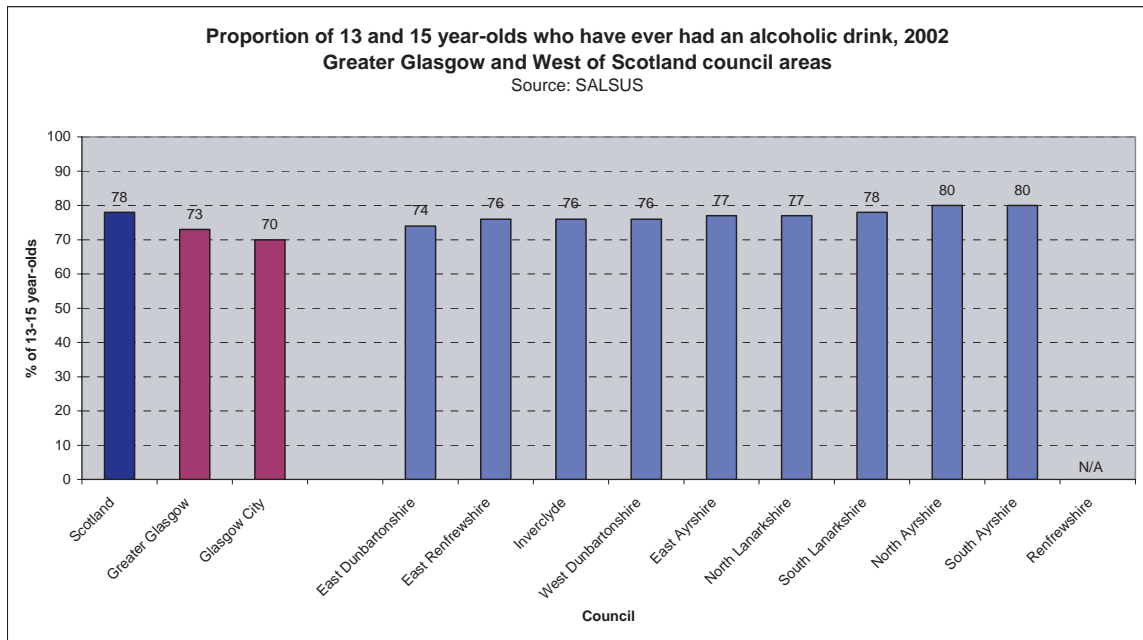


Figure 9.23

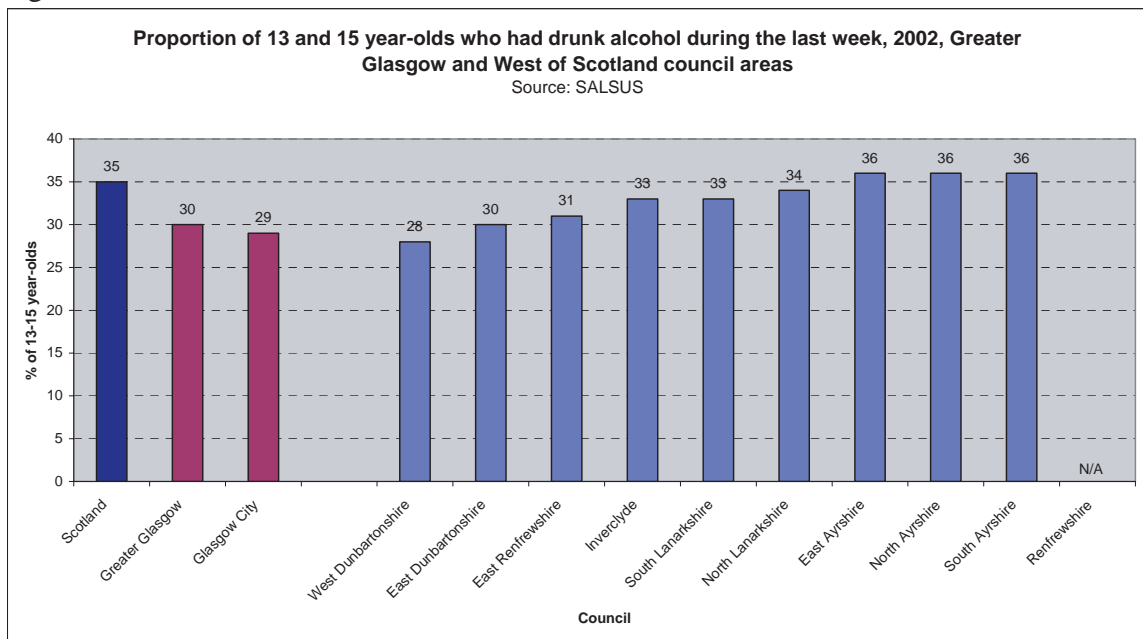
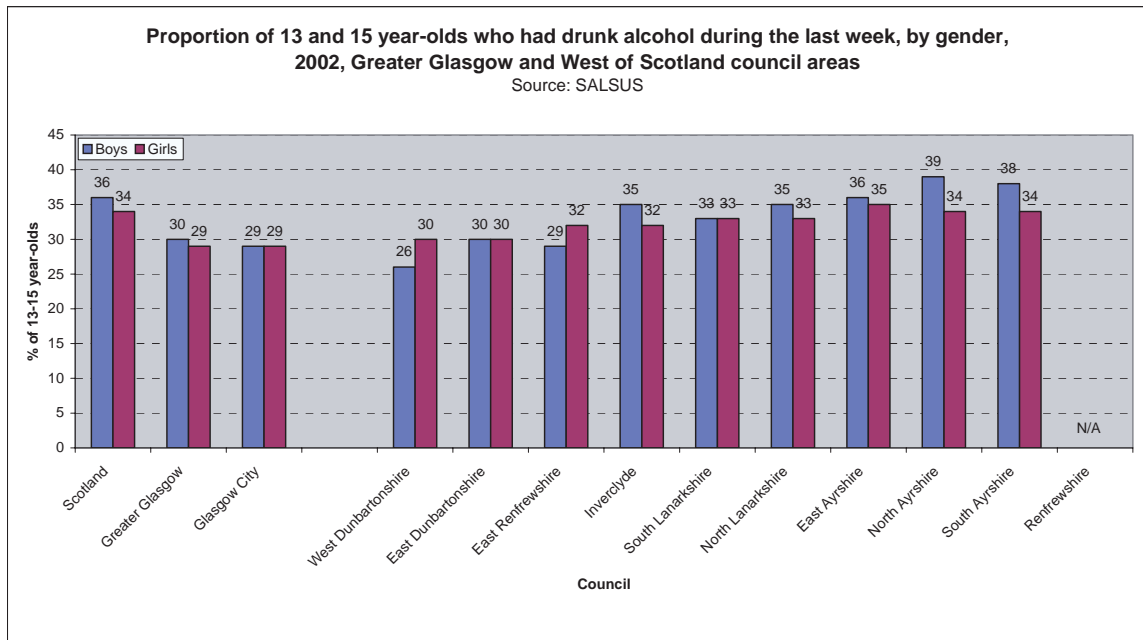


Figure 9.24



Again, trends for local areas are not available. However, the national trend showed increasing levels of alcohol drinking among 13 and 15 year olds of both sexes between 1990 and 2004.

Summaries of the SALSUS figures on smoking, alcohol and drugs use for the Glasgow area are presented in Figures 9.25 and 9.26.

Figure 9.25

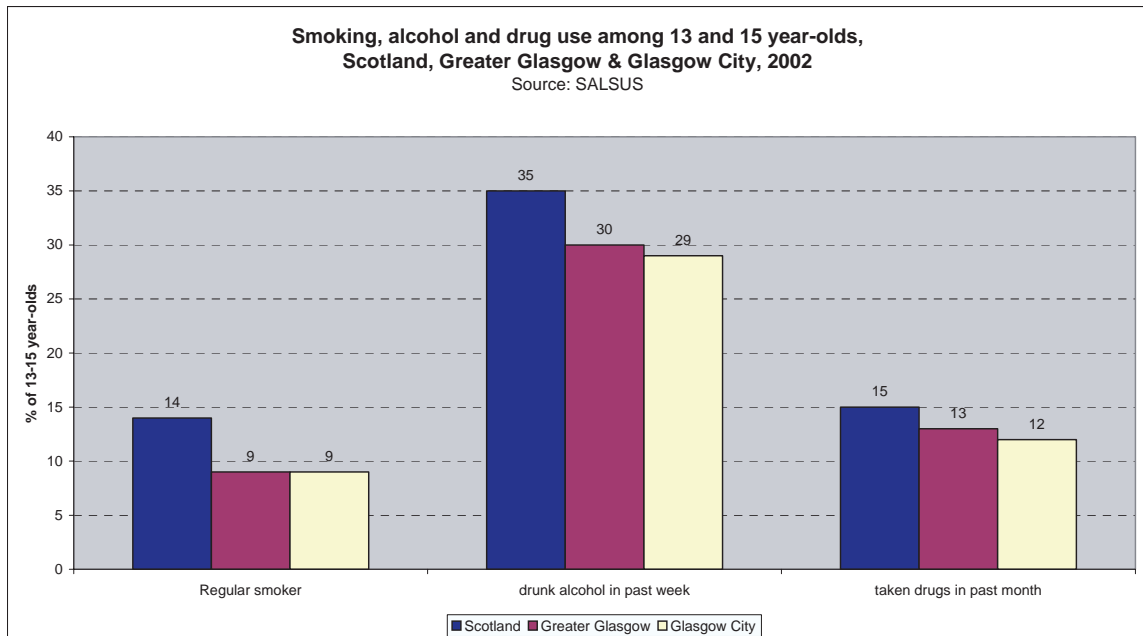
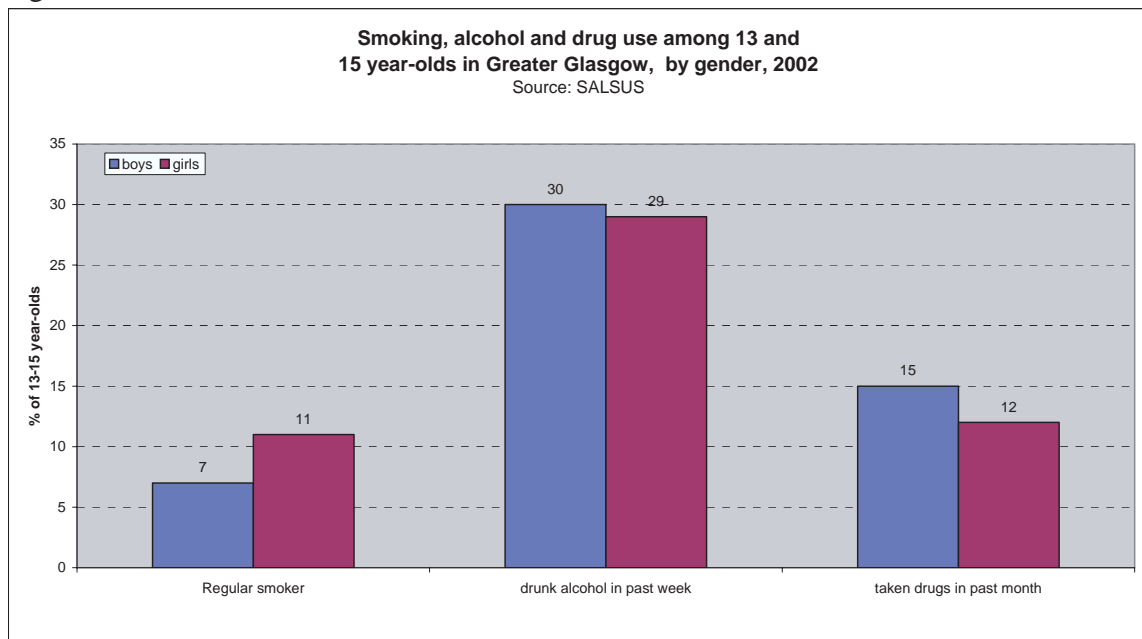


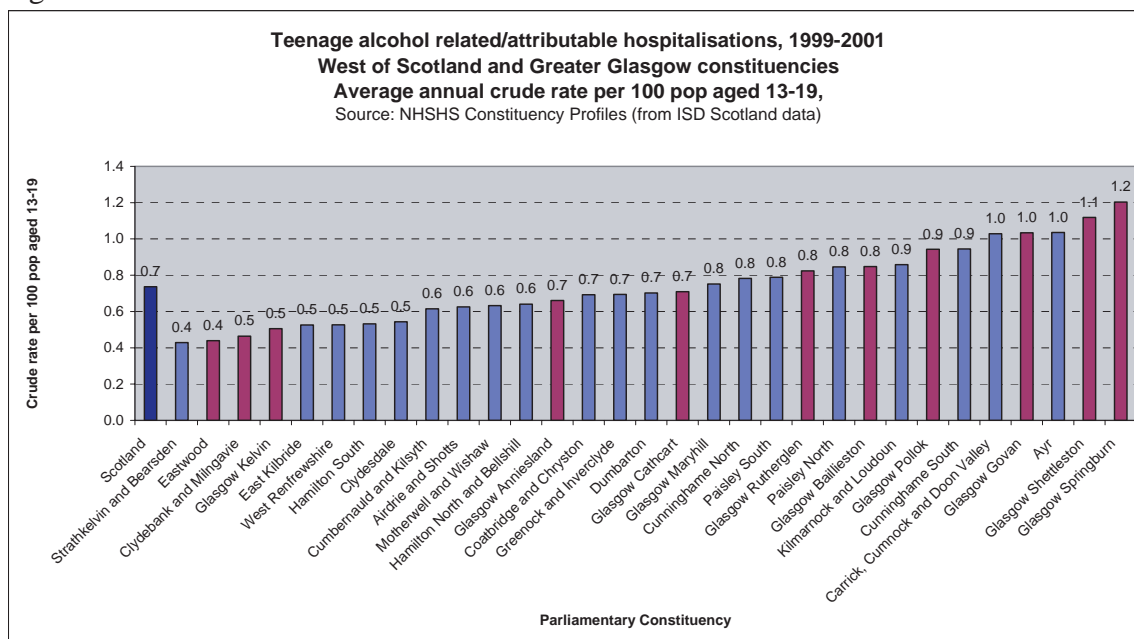
Figure 9.26



Teenage alcohol hospitalisation

Rates of acute hospitalisation among teenagers (ages 13-19) for alcohol related and attributable causes (1999-2001) were included in the 2004 Constituency Health and Well-being Profiles. A summary chart for the West of Scotland parliamentary constituencies is shown in Figure 9.27. The graph shows a three-fold difference between the constituency with the lowest rates, Strathkelvin & Bearsden (0.4 hospital stays per 100 population), and the constituency with the highest, Glasgow Springburn (1.2 per 100). Note that these figures only include teenagers actually admitted to hospital, and do not reflect those attendances at Accident and Emergency which do not result in an inpatient admission.

Figure 9.27



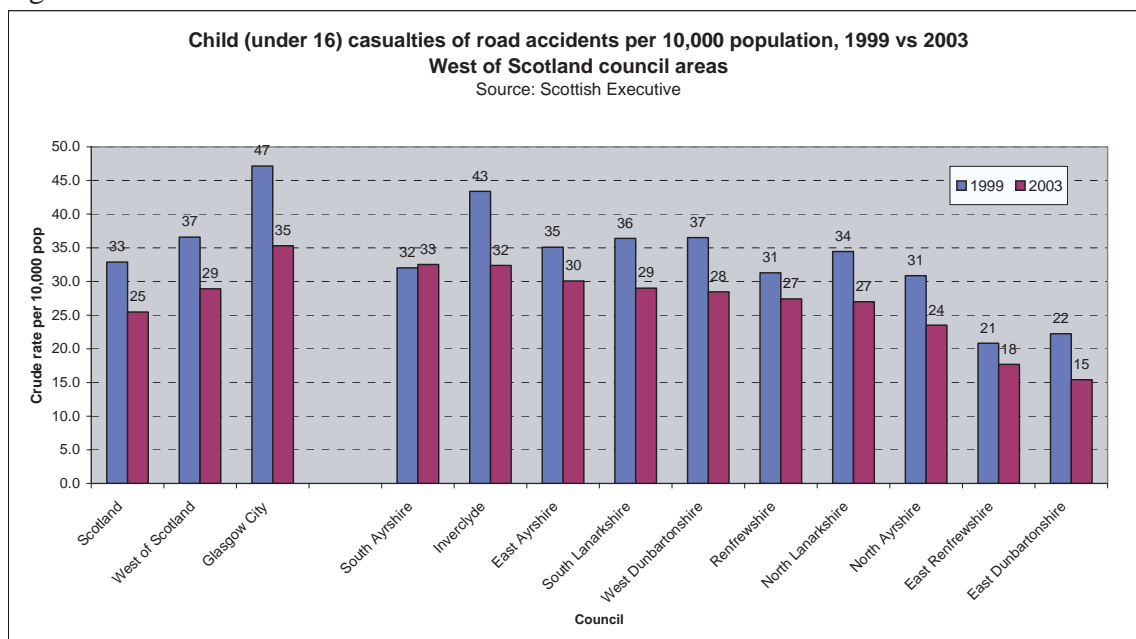
In terms of actual numbers of admissions, the rate in Strathkelvin & Bearsden represents an average of 33 hospital stays per year, while there were an average of 71 in Glasgow Springburn.

There has been a marked increase in admissions over a ten-year period between 1989/91 and 1999/01. For all Scotland, admissions increased by around 22% over the period, with more notable rises evident in some areas of Glasgow and the West of Scotland e.g. Glasgow Rutherglen (60% increase), Carrick, Cumnock & Doon Valley (80% increase).

Road traffic casualties

The final section in this chapter examines briefly road traffic casualties among children. Figure 9.28 shows child road accident casualties by local authority area for the time period 1999-2003. Note, however, that a number of caveats (explained in full in the appendices) around this data should be borne in mind, not least the fact that casualties have been assigned to a council area in which an accident occurred (although clearly not all casualties will have necessarily come from that area).

Figure 9.28



This Figure shows that over the period there was a reduction in the rate of child road accident casualties in the majority of the West of Scotland council areas with the exception of South Ayrshire where the rate rose slightly. The rate of child road accident casualties in the West of Scotland as a whole (29 per 10,000 in 2003, representing a total of 1,194 casualties) is slightly higher than the Scottish average (25.5 per 10,000). However, great variations in rates are evident across the different council areas. Glasgow had the highest rate of child casualties in both 1999 and 2003, although the rate decreased by 25% over this period to 35.3 per 10,000 (representing 376 casualties). Despite this drop, the rate of child casualties in Glasgow was still double that in East Renfrewshire and East Dunbartonshire.

Summary

- We know that the circumstances in which children are raised can have a major bearing on their future health and well-being. Recent studies have shown, for example, that children in care are more likely to go on to experience considerable problems and challenges in later life⁷. Given that, this chapter highlights areas of considerable concern, such as:
 - The estimated 6,000+ children in Glasgow living with a parent with a substance misuse problem.
 - In Glasgow, 2,500 children are looked after by the local authority – and twice that number are looked after across all the West of Scotland council areas.
 - Almost 1,000 children in the West of Scotland are on a child protection register.
 - There is a significant number of children living in households where neither parent is in employment: in 2001, well over 100,000 West of Scotland children fell into this category.
- These are big numbers for only one part of a small country. Furthermore, the proportions of children who are looked after and who are on child protection registers are increasing, and while we have no trend data on the estimated numbers affected by parental substance problems, the fact that levels of drug and (especially) alcohol related harm are rising, means that it is unlikely that the proportion of children affected by these problems will diminish in the near future.
- Further bad news in terms of children's health is provided by the trend in teenage alcohol related hospitalisation, and in the levels of alcohol consumption, and drug-taking, by adolescents.
- The rising level of adult obesity was highlighted as a major concern in Chapter 7: Behaviour. To add to this, the fact that an estimated one fifth of pre-school children (i.e. three to four year olds) are either overweight or obese should clearly have important policy implications. Indeed, although no Glasgow/West of Scotland specific data are available, recently released, national figures estimate that over one third of primary seven pupils are overweight, one in five are obese and more than one in ten are classed as 'severely obese'.
- However, some more positive evidence around the health of children can be glimpsed in the national decrease in rates of smoking among adolescents (especially among boys), as it is likely that this decline is also true of the West of Scotland.
- Better news is also provided by evidence that the dental health of children is slowly improving – although the fact that even in the more affluent parts of Greater Glasgow almost four out of ten children have 'obvious or advanced decay' suggests there is no room for complacency.

- The decrease in road traffic casualties among children is also welcome. Although casualty rates in Glasgow remain the highest in the West of Scotland, the 33% decrease in the five-year period between 1999 and 2003 can be seen as a success story.

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\[http://www.isdscotland.org/isd/info3.jsp?pContentID=2044&p_applic=CCC&p_service=Content.show&\]\(http://www.isdscotland.org/isd/info3.jsp?pContentID=2044&p_applic=CCC&p_service=Content.show&\)](http://www.isdscotland.org/isd/info3.jsp?pContentID=1781&p_applic=CCC&p_service=Content.show&)

⁶ Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) National Report. 2004
<http://www.drugmisuse.isdscotland.org/publications/abstracts/salsus.htm>

⁷ Scottish Executive. The Report from the Working Group on the Throughcare and Aftercare of Looked After Children in Scotland. Edinburgh: The Stationery Office, 2002

Summary

At the 2001 census, almost one in four residents of Greater Glasgow reported that they suffered from a limiting long-term illness, health problem or disability. About 15% of Glaswegians stated that their health was "not good".

Across Glasgow and the West of Scotland, huge variation in the recorded rates of such self assessed measures can be seen. The same is also true of a number of different indicators of health, function and disability which are derived from government benefits systems.

The boundaries of Greater Glasgow incorporate both the 'unhealthiest', and 'healthiest', areas within Scotland, as measured by such indicators.

In the year 2000, almost one fifth of the working age population of Greater Glasgow (more than 85,000 adults) were classified as being unable to work due to illness or disability. Since then the rate has fallen, but only slightly. Effective solutions to reduce the high numbers of people not in the employment market due to disability could be one of the key drivers for health improvement in Glasgow.

"Glasgow communities appear to be at either end of the spectrum of prevalence of limiting long-term illness."

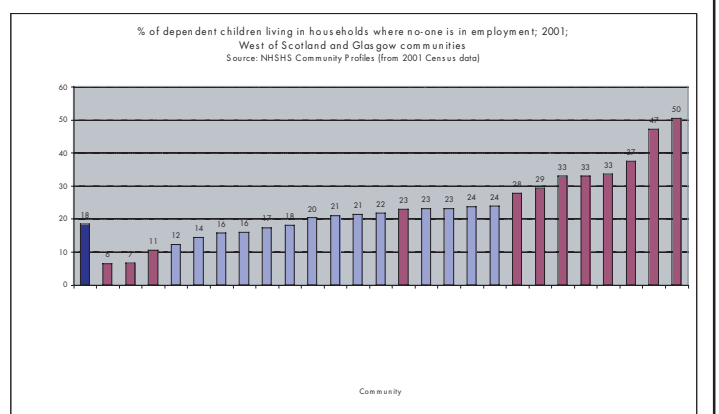
"In the ten areas with the lowest rate of adults claiming Incapacity Benefit or Severe Disability Allowance only 2% to 4% of adults were claiming these benefits in 2000, while in the highest rate areas – all in Glasgow – the rates of adults claiming these benefits ranged from 31% to 49% of the working age population."

"Some of the communities in and around Glasgow are the 'healthiest' in Scotland."

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 10: Health and function

This chapter examines a selection of indicators grouped under the broad heading of 'health and function'. This concept is included in many current models of health and is defined in terms of issues such as disability, the need for care/support, and the ability to carry out activities of daily living.

Two sets of indicators are presented in an attempt to describe the varying patterns of health and function across Glasgow and the West of Scotland. These are: self-assessed measures from the Census, and data derived from government benefits systems. The latter are slightly problematic because of changes in eligibility criteria over time. However, although individual indicators may suffer from specific weaknesses and caveats, the presentation of all these data together provides a reasonable insight into the overall patterns of health and function across the West of Scotland.

10.1 Self assessed measures

Limiting long-term illness

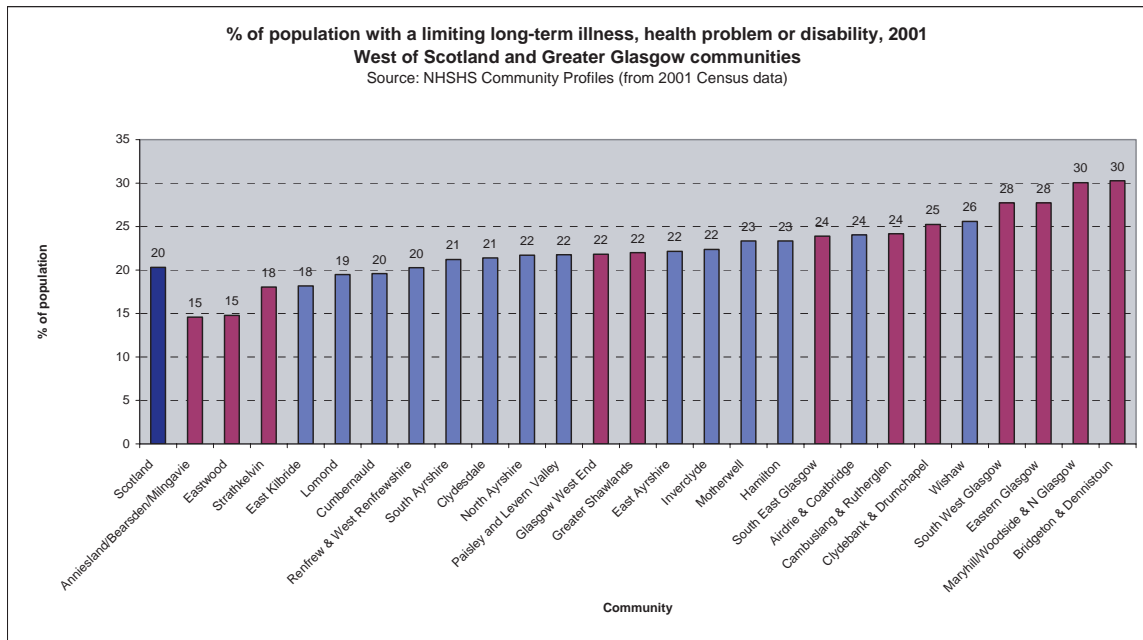
According to the 2001 Census, 20% of the population in Scotland stated that they suffered from a 'limiting long-term illness, health problem or disability which limits their daily activities or the work they can do'ⁱ. This represented a considerable rise from the figure of 15% reported in the 1991 Census. Whether there has been a real change in the number of people suffering such problems, or whether the rise is in part because the public is more willing to 'admit' to such problems, has been subject to debate. Nevertheless, this is an important indicator of overall and relative health status.

At 24%, the 2001 figure for the Greater Glasgow area was higher than that of Scotland as a whole. Figure 10.1 shows the variation in levels of limiting long-term illness (LLI) across the West of Scotland 'communities'ⁱⁱ. This shows that Greater Glasgow communities appear at either end of the spectrum of prevalence: the lowest rates occur in Anniesland, Bearsden & Milngavie (15%), Eastwood (15%) and Strathkelvin (18%), while the highest rates occur in South West Glasgow (28%), Eastern Glasgow (28%), Maryhill, Woodside & North Glasgow (30%) and Bridgeton & Dennistoun (30%).

ⁱ This definition includes problems due to old age. Full definition of this, and other indicators presented in this chapter, are included in Appendix 1.

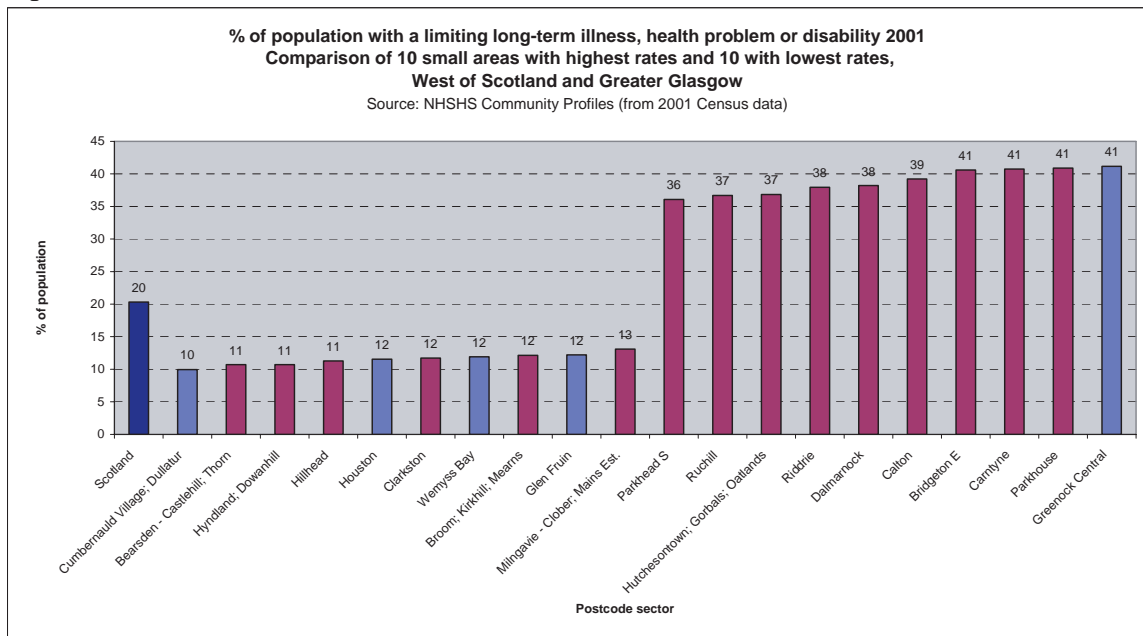
ⁱⁱ These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see 'Preface to Chapters 2-12'.

Figure 10.1



At a postcode sector level, differences in LLI between areas are more marked. In the ten areas with the lowest levels, the rates range from 10% to 13% of the population, while in the ten highest rate areas the figures range from 36% to 41%. As can be seen in Figure 10.2, the latter are all areas of known deprivation and multiple social and health problems.

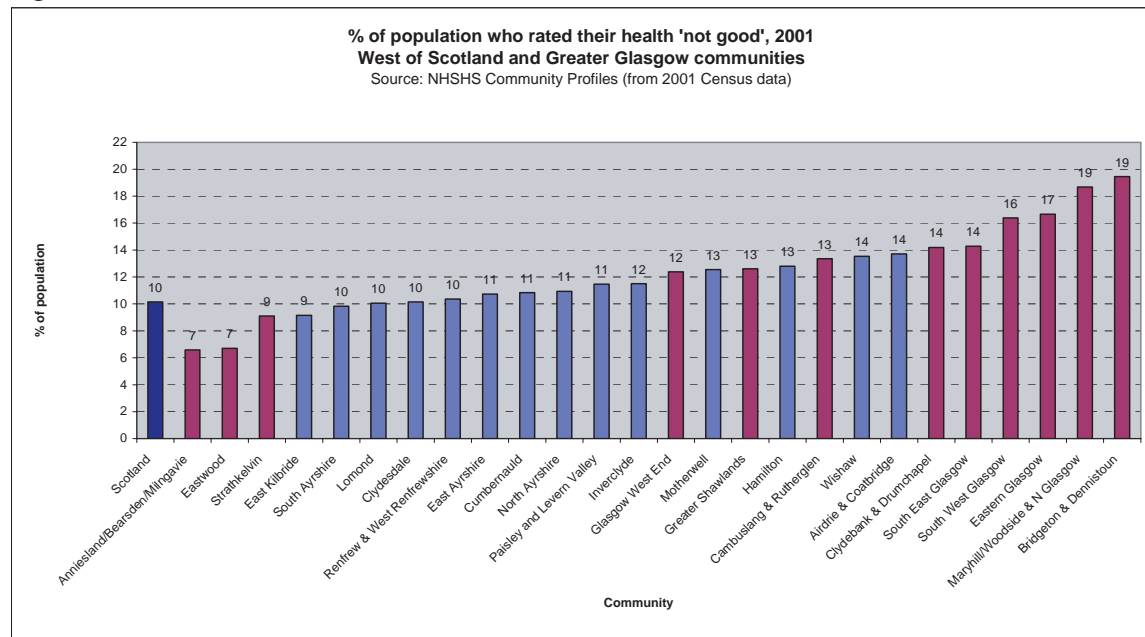
Figure 10.2



Self-assessed health

Self-assessed health – also collected in the 2001 Census – is a similar indicator of general health status. The pattern of people stating that their health was ‘not good’ across the West of Scotland communities is comparable to that just shown for limiting long-term illness. The lowest rates of people describing their health as poor were in Anniesland, Bearsden & Milngavie (7%), Eastwood (7%), and Strathkelvin (9%), while the highest rates occurred in South West Glasgow (16%), Eastern Glasgow (17%), Maryhill, Woodside & North Glasgow (19%) and Bridgeton & Dennistoun (20%). The figure for all Scotland was 10%. These are shown in Figure 10.3.

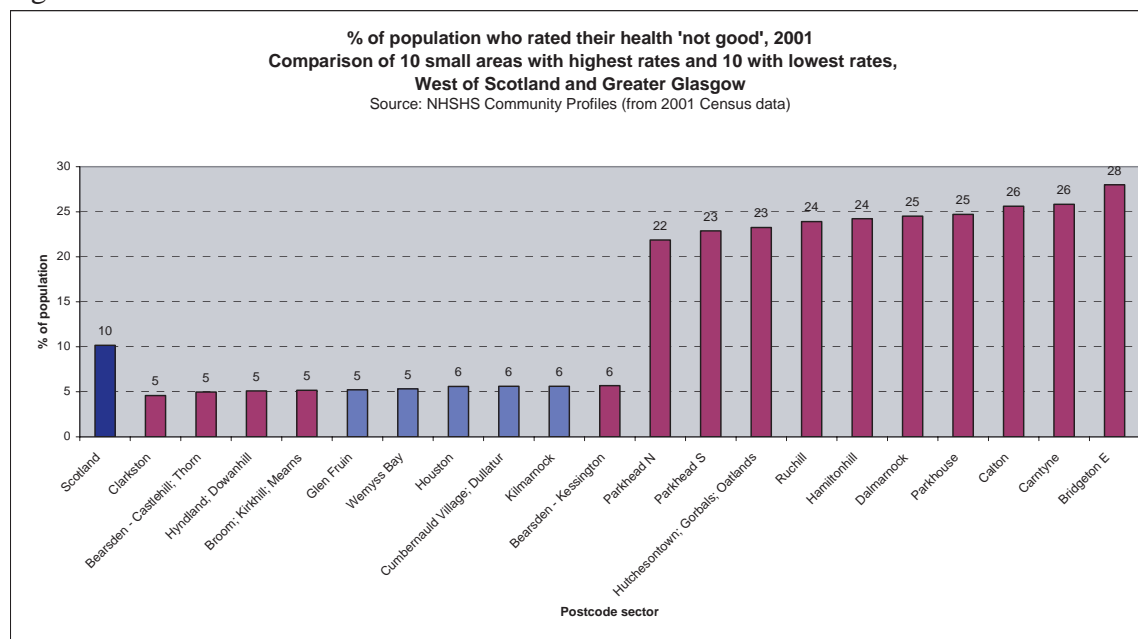
Figure 10.3



Note that no comparable question was asked in the 1991 census.

At a postcode sector level (Figure 10.4), the contrast between areas is more pronounced. In the ten areas in which the population assessed its health most positively in 2001, only 5% to 6% of people claimed that their health was ‘not good’. In the areas with poorest self-assessed health, the rates of poor self-assessed health ranged from 20% to 28% of the population; in other words between one in five people to one in four people in these populations stated their health was ‘not good’. These ten areas are all in Glasgow and in areas of relative deprivation.

Figure 10.4



Note that the overall figure for Greater Glasgow in 2001 was 14% of the total population. At a council level the figure for Glasgow City was 15.6%, almost double the figures for Edinburgh (8.1%) and Aberdeen (8.5%).

10.2 Benefits data

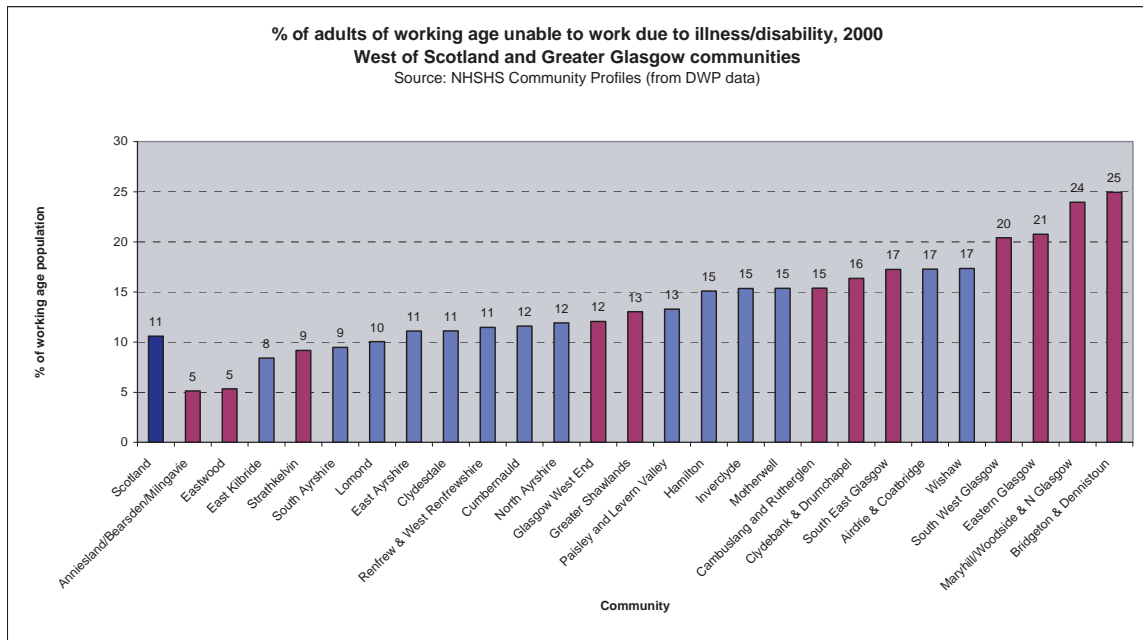
Adults unable to work due to illness/disability

This indicator, based on claimants of Incapacity Benefit or Severe Disability Allowanceⁱⁱⁱ, is important for several reasons. It can be tracked on an annual basis and identifies working age adults who are unable to work for health reasons. In Scotland in 2000, over 320,000 adults (10.6% of the working age population) were claiming Incapacity Benefit or Severe Disability Allowance. This figure was three times that of those claiming unemployment benefit. In Glasgow during the year 2000, almost one in five of the working age population was categorised as unable to work for this reason. This indicator is also important as it shows a strong correlation with other health measures such as life expectancy and mortality.

Across the West of Scotland communities, the pattern in the rates of adults unable to work due to illness or disability in 2000 was very similar to those seen for LLI and poor self assessed health. The lowest rates were observed in Anniesland, Bearsden & Milngavie and Eastwood (both 5%), with the highest rates in South West Glasgow (20%), Eastern Glasgow (21%), Maryhill, Woodside & North Glasgow (24%) and Bridgeton & Dennistoun (25%). These data are shown in Figure 10.5 below.

ⁱⁱⁱ See definition in Appendix 1.

Figure 10.5



At a small area level (Figure 10.6), the contrast between areas with lowest and highest rates of adults on these benefits is striking. In the ten lowest rate areas, only 2% to 4% of adults were claiming these benefits in 2000, while in the highest rate areas – all in Glasgow – the rates of adults claiming these benefits ranged from 31% to 49% of the working age population.

Figure 10.6

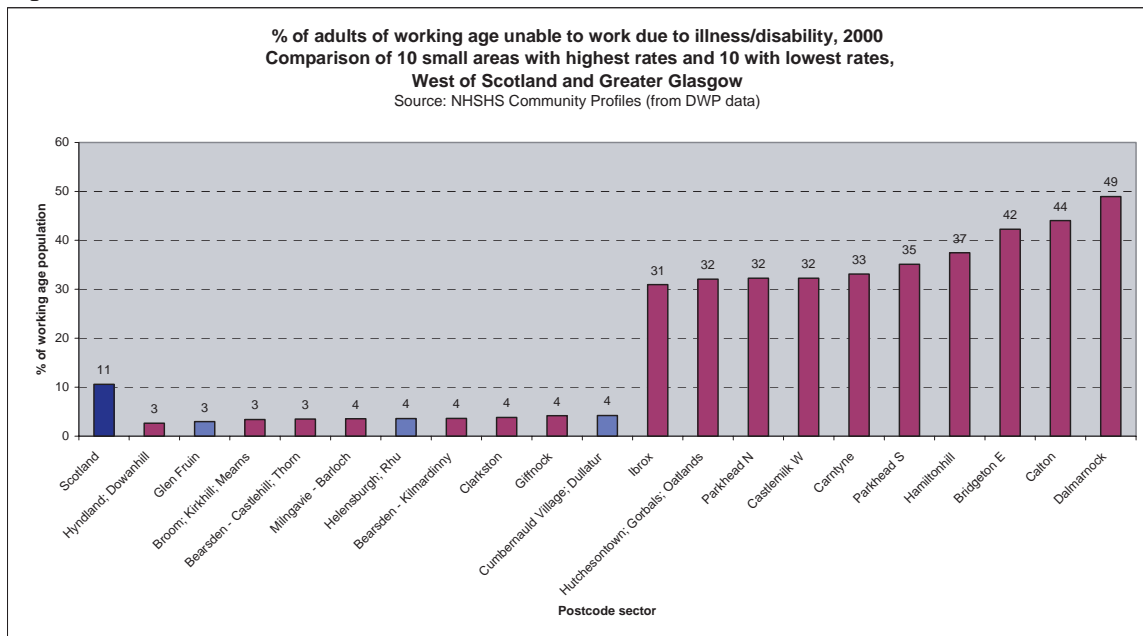
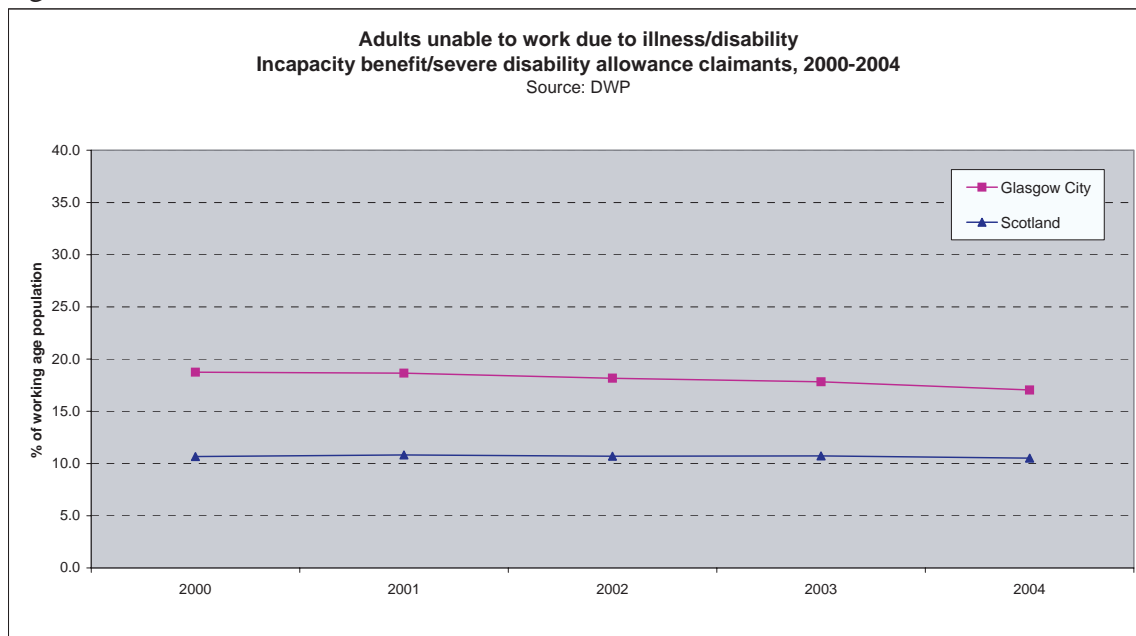


Figure 10.7 shows that since 2000, there has been no change in the national proportion of working age adults unable to work for this reason, while the figure for Glasgow has decreased, but only slightly: from 19% in 2000 to 17% in 2004.

Figure 10.7

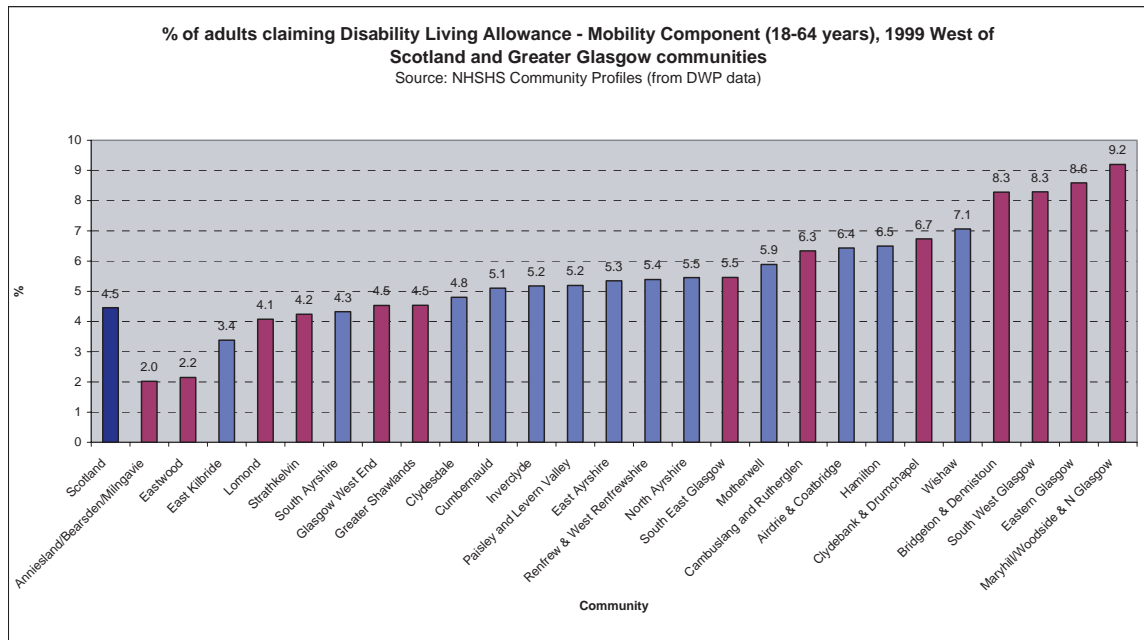


These figures are considered further at the end of the chapter.

Disability Living Allowance – mobility component

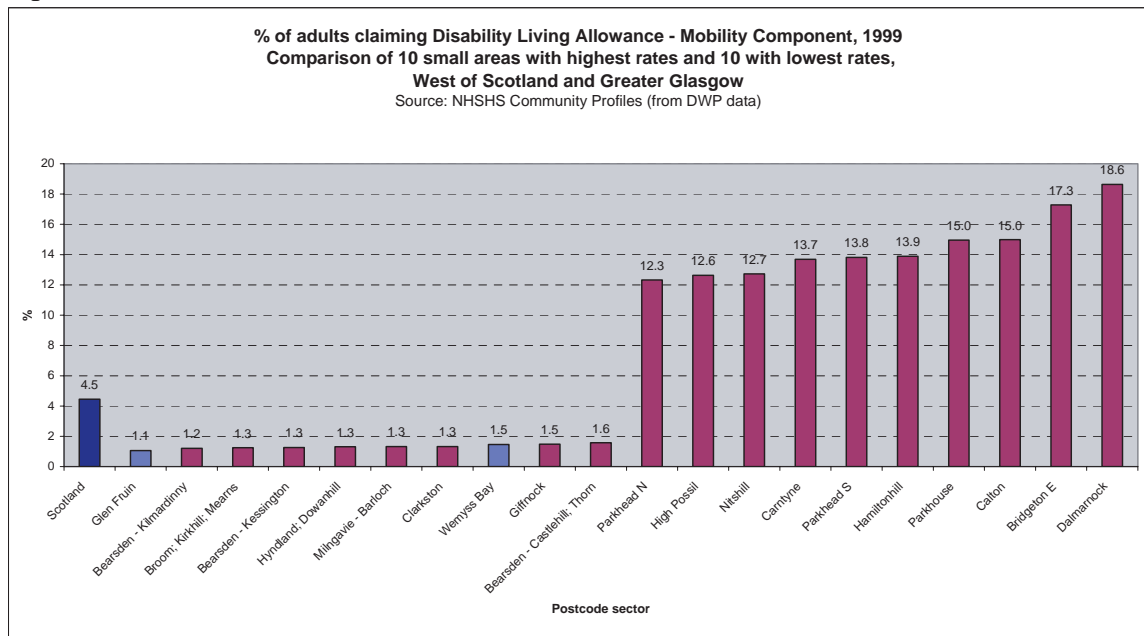
Disability Living Allowance is payable to people who are disabled and who have personal care needs, mobility needs, or both. The pattern in the rates of adults claiming the mobility component of this benefit is similar to the patterns seen for Incapacity Benefit / Severe Disability Allowance, limiting long-term illness and self-assessed health. The lowest rates are observed in Anniesland, Bearsden & Milngavie and Eastwood (both around 2%), while the highest rates are in Bridgeton & Dennistoun, South West Glasgow (both 8%), Eastern Glasgow and Maryhill, Woodside & North Glasgow (all above 8%) (Figure 10.8).

Figure 10.8



At a small area level (Figure 10.9) there is a ten-fold difference in rates between the ten areas with lowest claimant rates (1% to 2% of adults claiming this benefit) and the ten areas with highest claimant rates (12% to 19%). The latter are all areas of known deprivation and multiple social and health problems.

Figure 10.9



Blue badge holders

Blue badge parking permits are issued to recipients of some disability related benefits, and to other 'permanently and substantially disabled' individuals^{iv}. It is thus a useful (if, obviously, not comprehensive) proxy for levels of some forms of disability in the population.

Over 220,000 blue badge parking permits were on issue as at March 2004, of which almost 100,000 had been issued to individuals resident in the West of Scotland, and more than 23,000 to Glasgow inhabitants. The full breakdown for each West of Scotland local authority area is shown in Figure 10.10. Note, however, that it is unclear to what extent the variation in rates across the country is attributable to need, greater uptake, different council practices or just to differences in age structure.

Figure 10.10

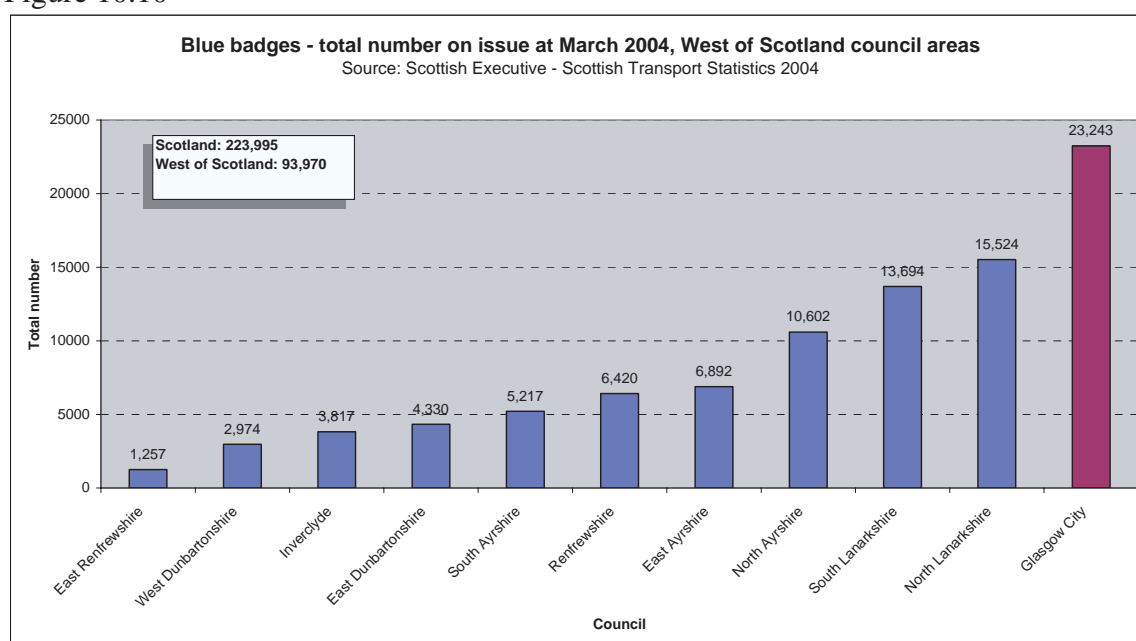
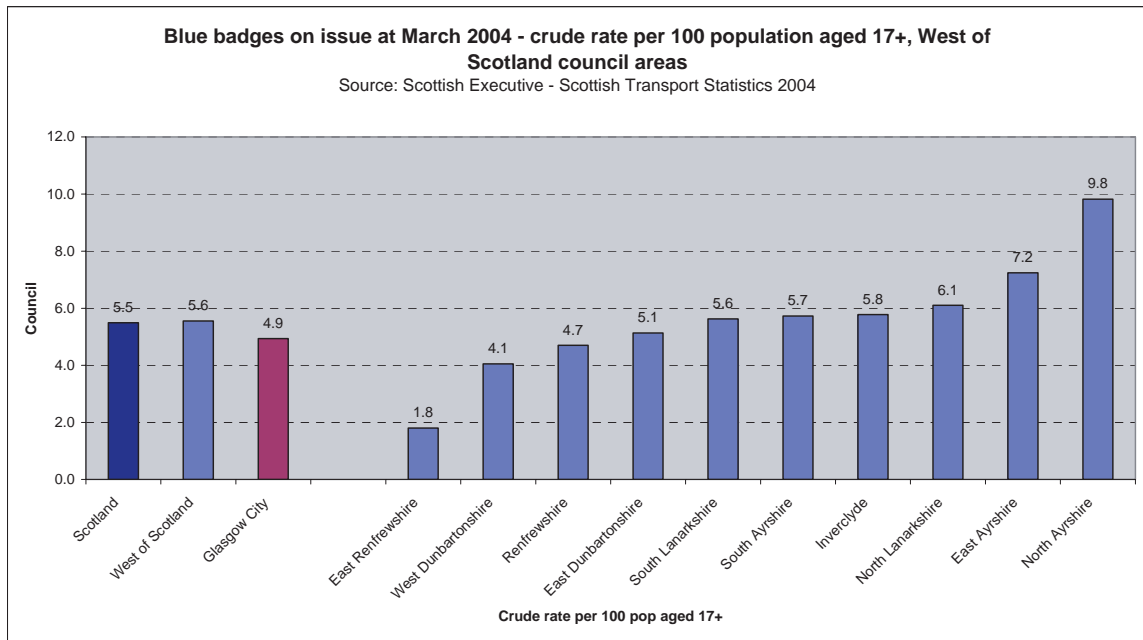


Figure 10.11 shows the total number of blue badges on issue in 2004 expressed as a crude rate per 100 population aged 17 and above. Proportionally, North Ayrshire has the highest figures, with a rate of almost 10 per 100 population, while the area with the lowest rate is East Renfrewshire (1.8 per 100 population). The rate for Glasgow is 4.9 per 100 population.

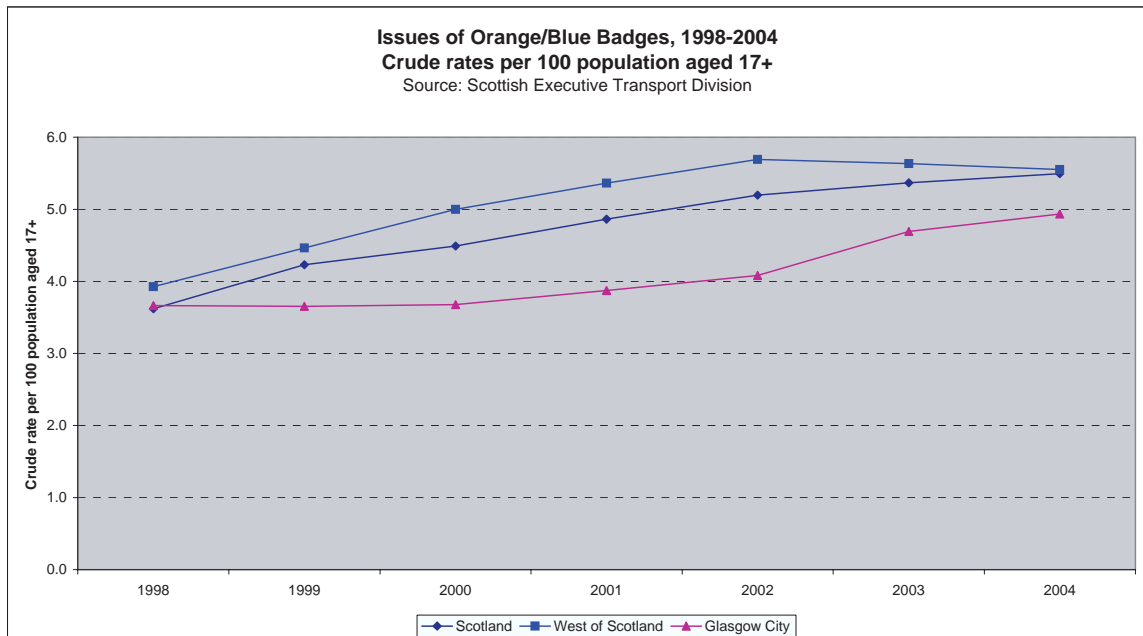
^{iv} Badges are issued automatically to recipients of mobility (and other) allowances and issued on discretionary basis to people with a permanent and substantial disability who are unable or nearly unable to walk. Full definitions are listed in Appendix 1.

Figure 10.11



A clear upward trend for badge issues can be seen between 1998 and 2004 (Figure 10.12), with, for example, the rate for the West of Scotland having increased by approximately 30% over that period.

Figure 10.12

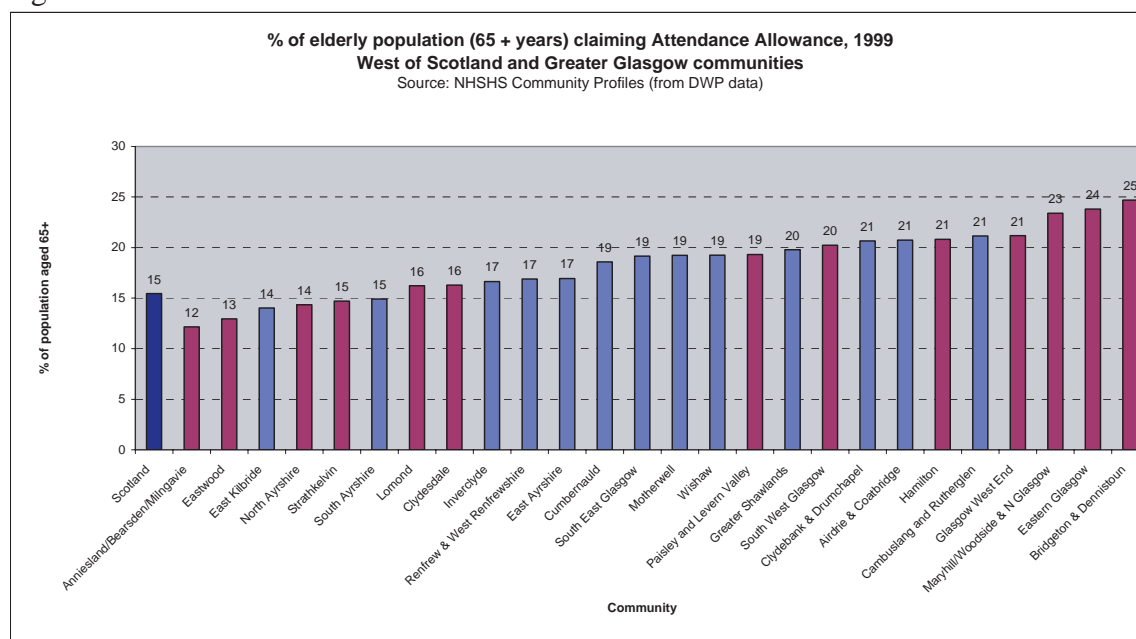


Attendance Allowance

The last indicator considered in this section is Attendance Allowance. This is a benefit for people over the age of 65 who have physical or mental health needs of sufficient severity that they require a great deal of help with personal care or supervision.

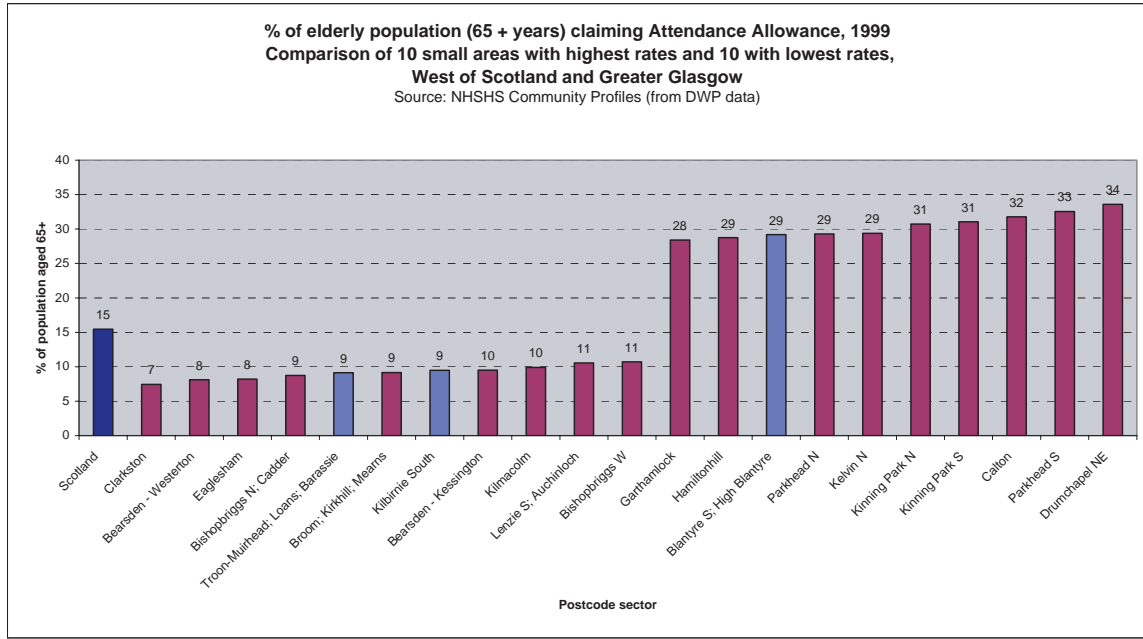
The pattern of rates of claimants of Attendance Allowance across West of Scotland communities is again similar to the patterns seen for other disability related indicators presented in this chapter. Figure 10.13 shows that the lowest rates are observed in Anniesland, Bearsden & Milngavie (12%) and Eastwood (13%), while the highest rates are in Maryhill, Woodside & North Glasgow (23%), Eastern Glasgow (24%) and Bridgeton & Dennistoun (25%).

Figure 10.13



In the ten areas with lowest claimant rates at a postcode sector level, 7-11% of the elderly population were claimants, while in the ten areas with the highest claimant rates, 28-34% of the elderly were claiming Attendance Allowance (Figure 10.14).

Figure 10.14



Summary

- In one sense these indicators merely reinforce what we already know: that the poorer parts of Glasgow have poorer health and higher levels of disability. However, what it again highlights is the fact that Glasgow is not one homogenous population. Just as there are many areas of poor health, there are other areas that are much healthier than the Scottish average and, indeed, some of the communities in and around Glasgow are the ‘healthiest’ in Scotland.
- It is also clear that differences in health between these areas are to a large extent mirrored by differences in health behaviour, educational attainment, employment, income and overall deprivation.
- The extent to which areas have changed over time in terms of their absolute and relative levels of health and disability is difficult to determine from these data but would be worthy of further study. We can be reasonably sure, however, that at least over the last ten to fifteen years many of these areas will have remained in the same relative positions.
- The proportion of the working age population unable to work due to illness and disability is striking. More than 10% of the working age population across Scotland fall into this category, with the proportion in some areas of Glasgow having been more than 40% in 2000. Across the Glasgow communities, more than 85,000 adults fall into this category. Obviously, there are issues to be considered with this indicator. In the past it has suited governments to have people classified as ‘sick’ rather than ‘unemployed’, and there are still suggestions today that some claimants prefer to continue receiving sickness/disability related benefits rather than other unemployment related payments, given eligibility and other criteria associated with the latter. Furthermore, at the time of writing, the UK government is proposing significant changes to the Incapacity Benefit system which will have a major effect on some claimants.
- Nonetheless, and despite these historic and ongoing issues, it is clear that effective solutions to reduce the high numbers of people outwith the employment market due to disability, could be one of the key drivers for health improvement in Glasgow. As discussed in Chapter 3: Population and life expectancy, Glasgow as a whole has a relatively low dependency ratio with a relatively high proportion of working age adults. However, with such a high proportion of this section of the population not in the employment market due to disability, the advantages of this relatively large working aged population are largely lost. There would clearly be economic and health gains from bringing this ‘lost’ sector of the population back into meaningful employment.

Summary

New estimates of primary-care based disease prevalence provide a helpful overview of the total numbers of the Greater Glasgow population affected by particular conditions, and confirm the higher levels evident in more deprived areas.

Important types of hospital admission, such as diabetes, have been increasing significantly. The levels, and variations in levels, of admission to hospital for deliberate self harm are striking, as is the long-term trend in suicides among men.

There have been significant reductions in rates of road accident casualties in recent years.

Deaths from heart disease and stroke have more than halved in Greater Glasgow over the past 25 years. However, Glasgow's rate of decrease has not matched that of the rest of the country. A gap has thus emerged between the rates in Greater Glasgow and Scotland.

Around one fifth of the population of the West of Scotland die before their 65th birthday. In the more deprived areas, figures are much higher (especially among men), and alcohol is one of the main causes of premature death.

"Rates of admission to hospital for diabetes more than doubled in the ten year period analysed (1991/93 – 2000/02) and this increase is mirrored in many parts of Glasgow."

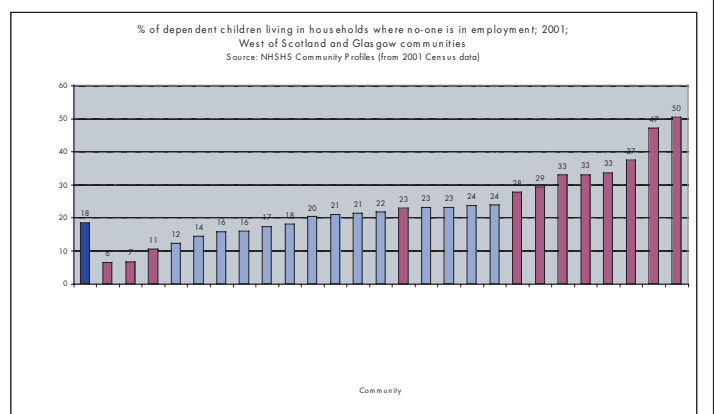
"The trend in cancer deaths is downward: across Scotland between 1990-92 and 2000-02 deaths from all cancers dropped by 10%, and this level of decrease is mirrored in a number of Glasgow communities."

"West Central Scotland's relatively poor levels of life expectancy are reflected in the fact that around one fifth of the population die before their 65th birthday."

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 11: Illness and disease

This chapter highlights a number of key points in relation to patterns and trends in morbidity and mortality in the West of Scotland and, particularly, Glasgow. However, no attempt has been made to present a detailed description of all the main illnesses affecting the population. This information is available elsewhere. Rather, the purpose of this chapter is to highlight some important trends and present some relatively new information on elements of disease prevalence.

The chapter is divided into five sections: an analysis of disease prevalence in Greater Glasgow (as measured at a primary care level); an examination of a handful of relevant hospital admission based indicators; road accident casualties among all ages; trends in a small number of cause-specific mortality rates; and premature mortality.

Note that several of the indicators discussed in other chapters are also relevant here: for example, levels of disability (in Chapter 10: Health and function), child road accident casualties (in Chapter 9: Children and adolescents) and alcohol related deaths (Chapter 7: Behaviour).

11.1 Estimates of disease prevalence at a primary care level

The figures presented in this section are taken from the QOF (Quality and Outcomes Framework) data first published by ISD Scotland in summer 2005. The data – collated as part of the system to remunerate GPs within the new General Medical Service (GMS) contract¹ – include, for each practice, the total number of patients recorded on each of eleven separate disease registers. Participation in the scheme is, however, voluntary, and the data presented here for the NHS Greater Glasgow area covers 210 out of the 215 Greater Glasgow practices¹.

There are two important points to note with regard to these data:

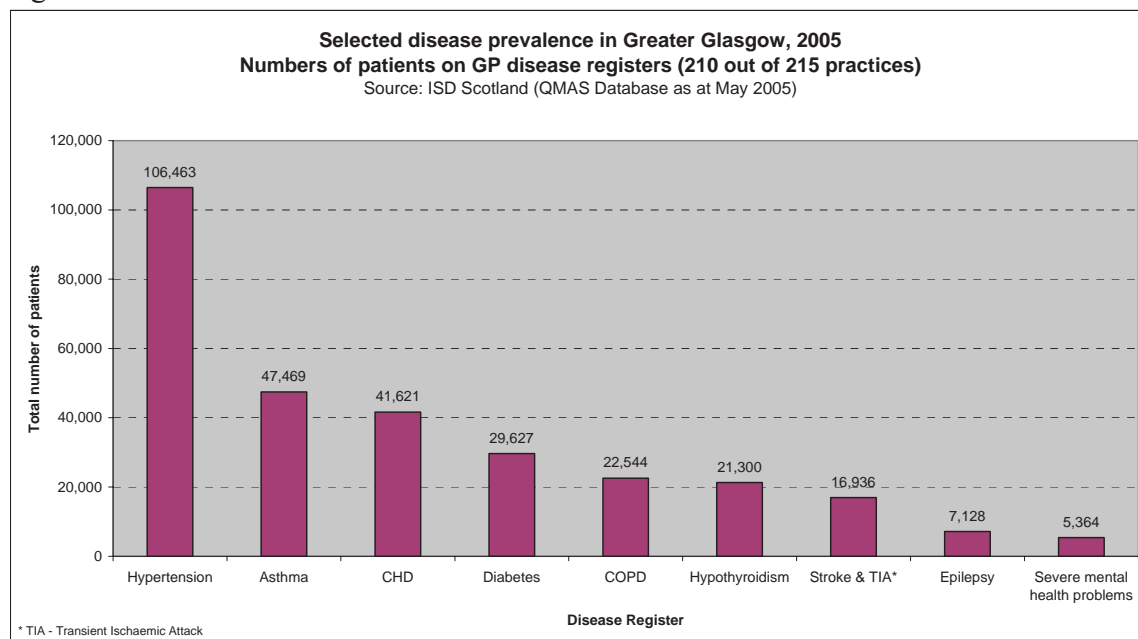
- Given the five missing GP practices, the figures will be an underestimate of the true disease prevalence of each disease category. Other important caveats are listed in Appendix 1.
- The data are currently not available by age or sex. Thus, where crude rates are presented, they do not take into account the age/sex structures of the populations. Variations in rates could, therefore, be a consequence of, for example, larger proportions of elderly patients within a practice population.

All data should, therefore, be interpreted with caution.

¹ Nationally, 99% of practices submitted data – only 14 out of 1038 failing to do so. However, five of those 14 were in the Greater Glasgow area (three within South West Glasgow, one in the West End of Glasgow, and one in the Bridgeton & Dennistoun area).

Figure 11.1 shows the total number of patients recorded on nine of the disease registers in the 210 NHS Greater Glasgow practices. This allows us to see that, for example, more than 105,000 patients in Greater Glasgow have been diagnosed with hypertension, 47,500 patients have been diagnosed with asthma, and around 40,000 with coronary heart disease (CHD). There are also about 30,000 diagnosed diabetics (aged 17+), 22,500 patients with chronic obstructive pulmonary disease (COPD), over 7000 patients with epilepsy (aged 16+), and more than 5,000 patients with severe and long-term mental health problemsⁱⁱ.

Figure 11.1



Figures 11.2 to 11.8 show the breakdown of these figures across different practices within Greater Glasgow. Please note that the data are presented by location of the practice, *not* the location (residence) of the patient. As discussed above, these are crude, unstandardised rates, and should be interpreted with caution.

It can be noted that:

- Despite the many caveats listed above, a familiar pattern is evident in the majority of these graphs in terms of (a) the enormous variation in rates across Greater Glasgow, and (b) the more deprived parts of the city being associated with the highest prevalence rates for many conditions.
- For example, we see that for **asthma** (Figure 11.2), about one in ten patients served by GP practices within parts of Drumchapel have been diagnosed as suffering from this condition, whereas for patients within the more affluent Hillhead area – only two or three miles distance from Drumchapel – the figure is less than two in a hundred.
- In areas with the highest rates of diagnosed **hypertension** (Figure 11.3), almost one in five of the practice population have been diagnosed, compared to just 3.5% in the area with the lowest figure (Hillhead).

ⁱⁱ Patients with severe and long-term mental health problems: numbers are restricted to those undergoing regular follow-up.

- Similar, or greater, variations in rates are seen for all conditions (e.g. **coronary heart disease** (Figure 11.4), **chronic obstructive pulmonary disease** (Figure 11.5), **stroke** (Figure 11.8))
- Although relating to much smaller numbers of patients, the crude rate of diagnosed **epilepsy** (Figure 11.6) among adults is also much higher in practices based within more deprived areas (e.g. Drumchapel, Calton, Hutchesontown), with a ten-fold variation in rates between these areas and those with the lowest rates.
- **Diabetes** (Figure 11.7) among adults shows a different picture, however, with high rates recorded in some affluent, as well as more deprived, areas. This may be affected by, for example, some practice populations having higher proportions of elderly patients and/or members of minority ethnic populations (some of which are known to experience higher levels of diabetes).

Figure 11.2

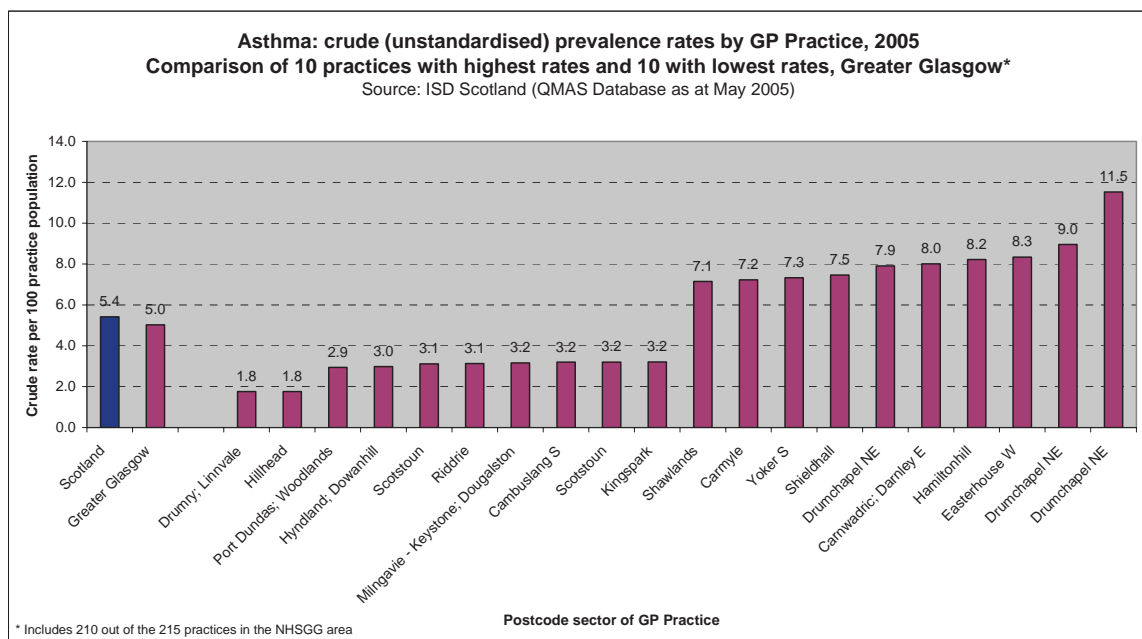


Figure 11.3

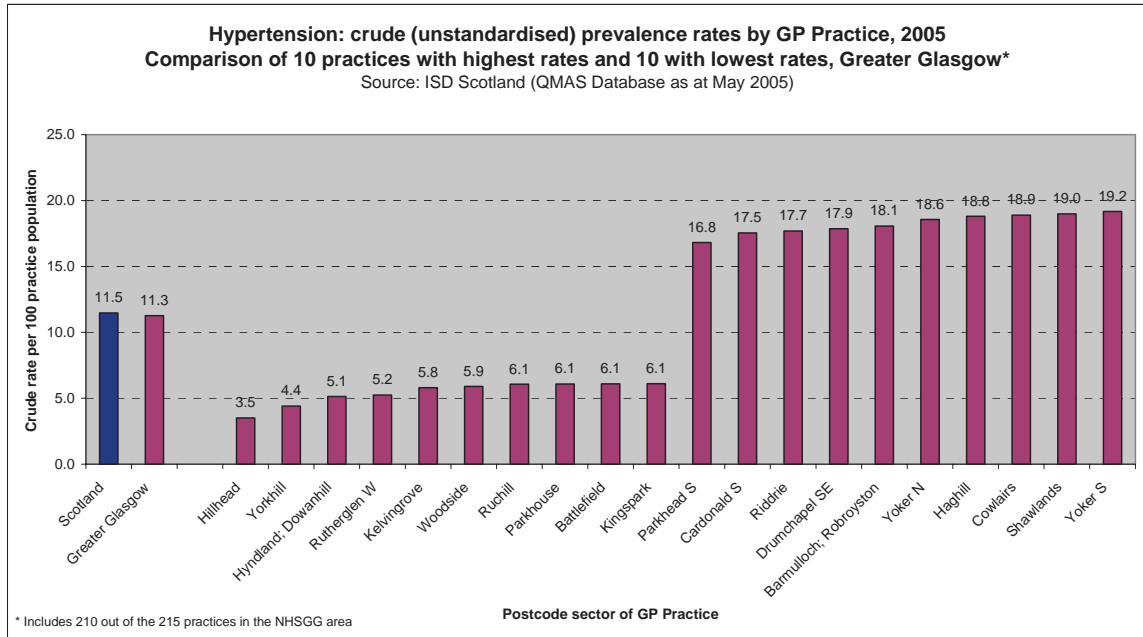


Figure 11.4

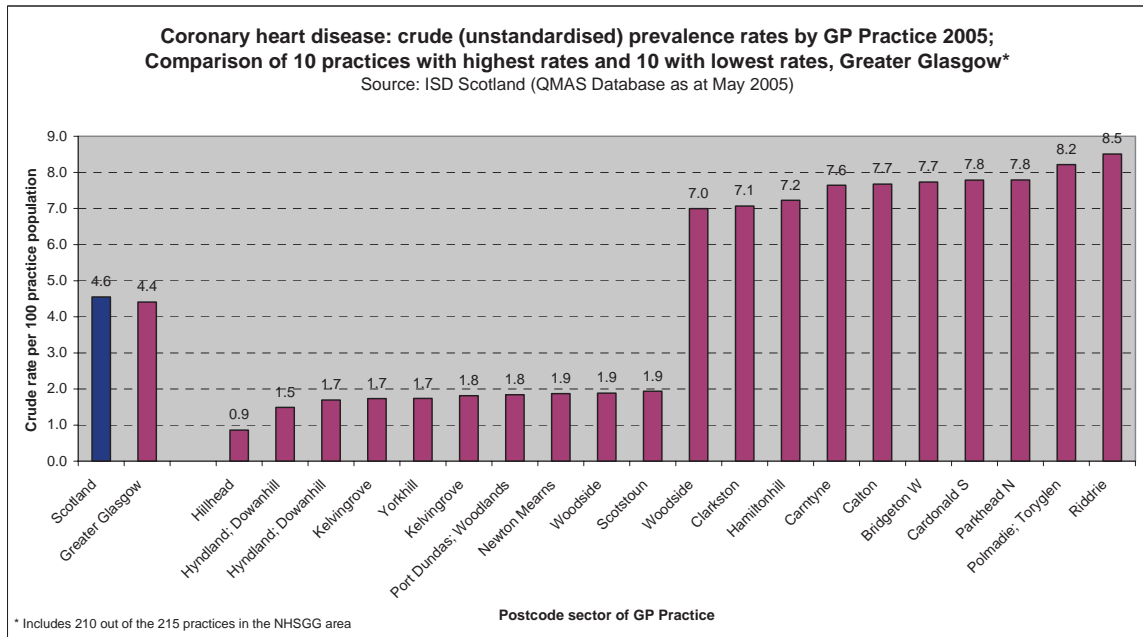


Figure 11.5

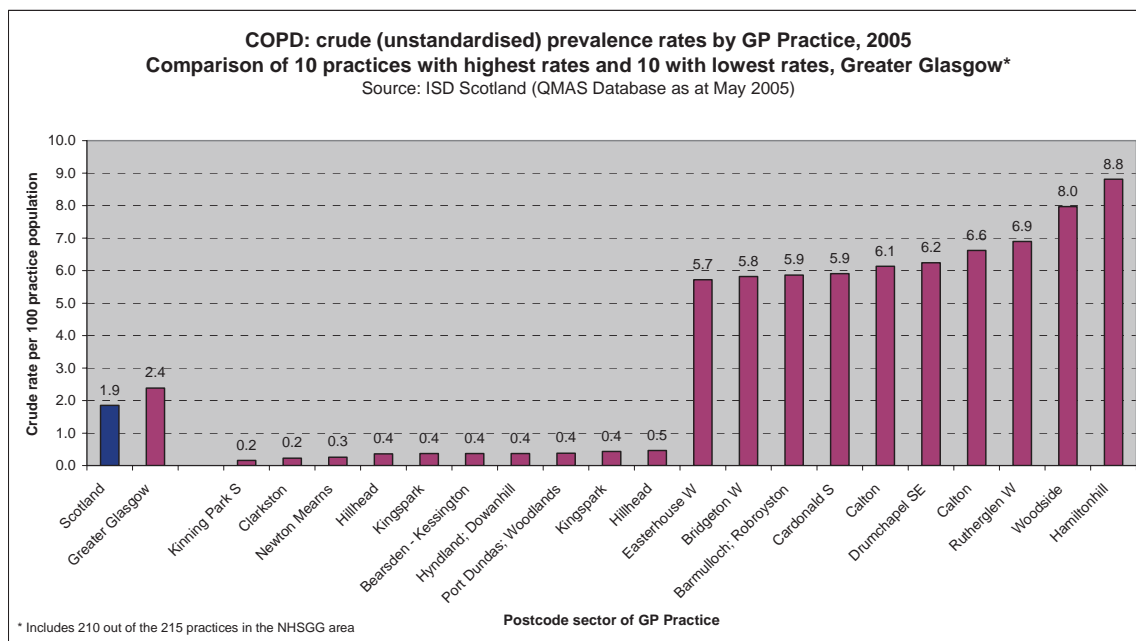


Figure 11.6

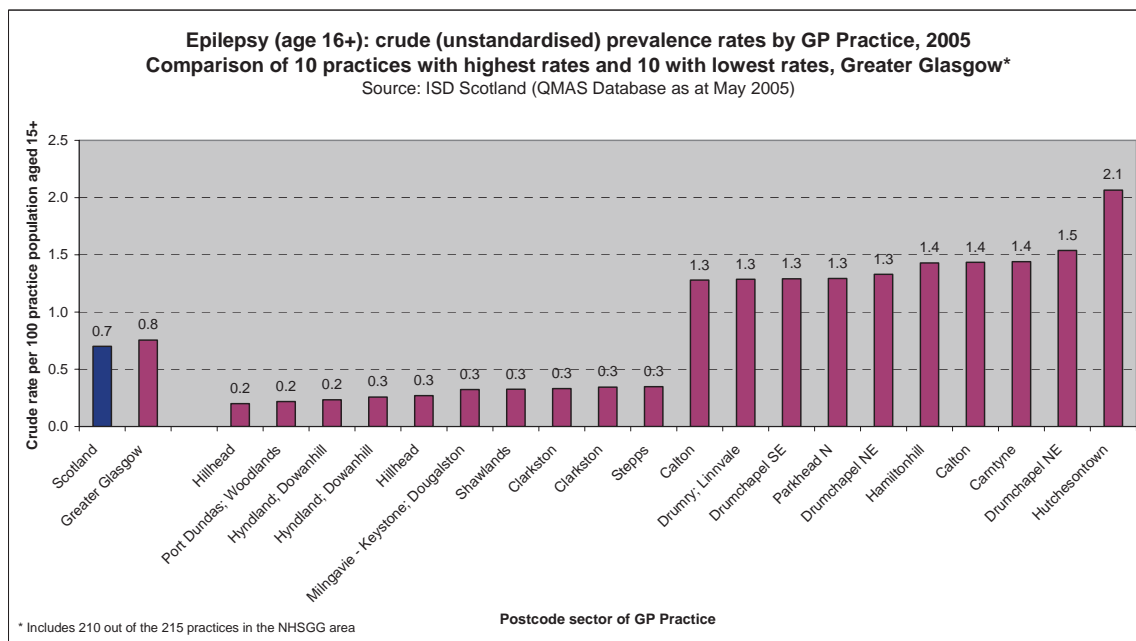


Figure 11.7

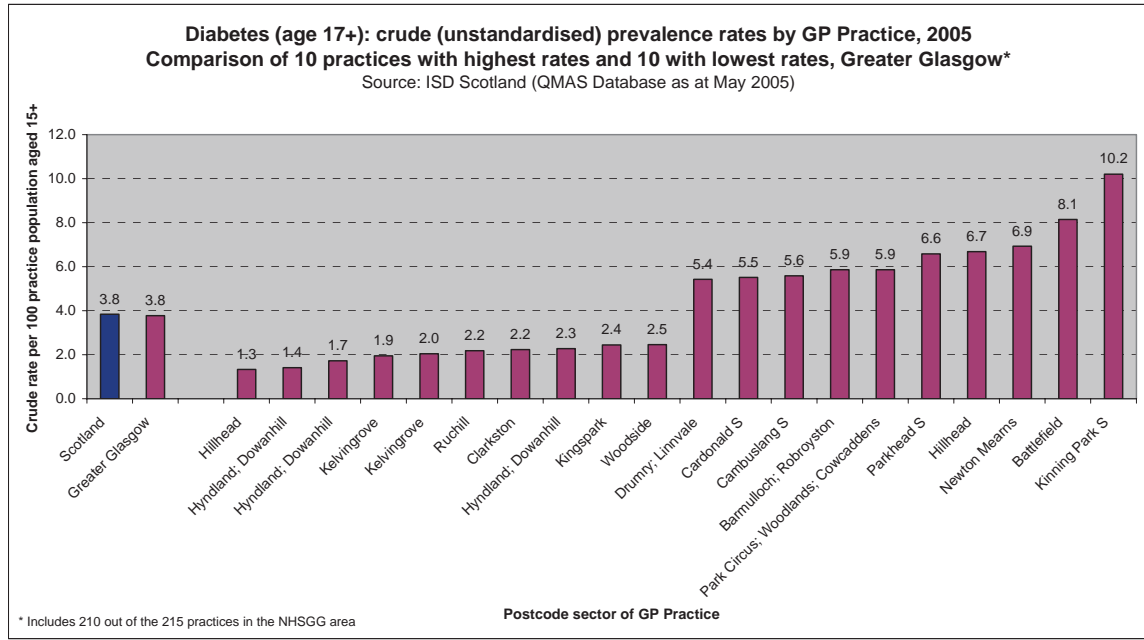
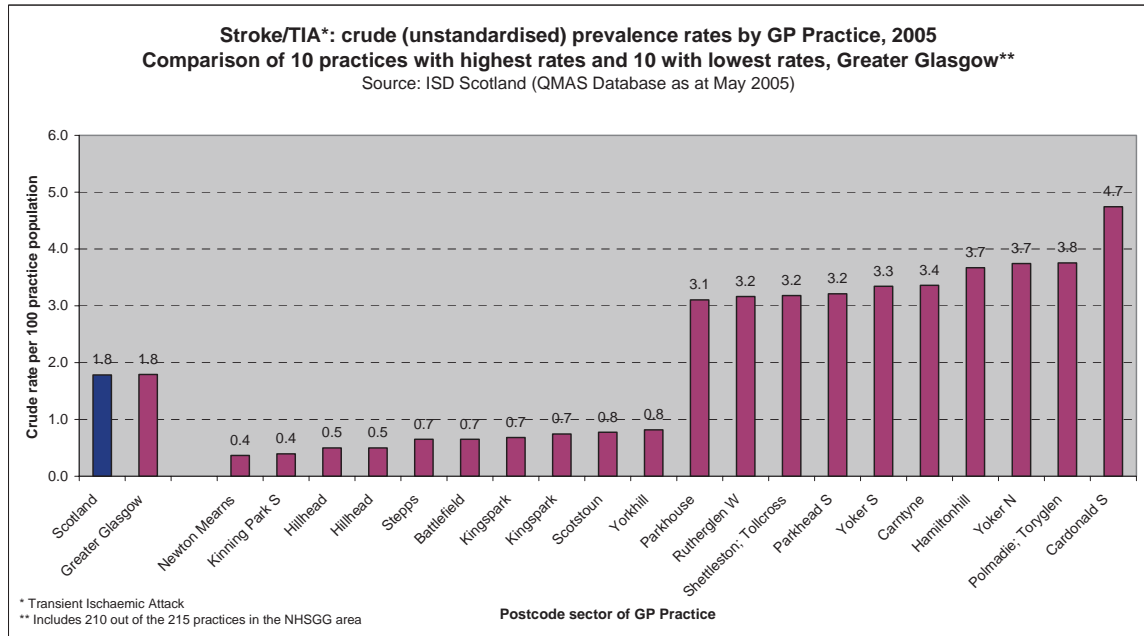


Figure 11.8



The caveats surrounding this information are significant as the data have important limitations. Nevertheless, the data provide us with a useful overview of the extent to which the population of Greater Glasgow is affected by some common conditions.

11.2 Hospital admissions data

Some of the most common reasons for hospital admission (e.g. heart disease, cancer, stroke) are discussed elsewhere in this chapter. Here, four reasons for admission are considered: diabetes, ‘external’ causes, deliberate self harm, and psychiatric admissions. Diabetes is included on account of its increasing prevalence in recent years. The term ‘external causes’ covers a number of reasons for hospital admission including road accidents, assaults, falls, drowning and poisonings. It is important because research has shown that a number of the causes included in this broad grouping are contributing to the rising trend in death rates among young men in Scotland², and because of the association between high rates of admission for these reasons and deprivation. Deliberate self harm is one such ‘external’ cause and, alongside psychiatric admissions, allows us insight (albeit extremely limited) into patterns of mental ill-health in Glasgow and the West of Scotland.

Diabetesⁱⁱⁱ

Figure 11.9 shows the average annual age-standardised rates for admissions to hospital for diabetes in each Greater Glasgow and West of Scotland ‘community’^{iv}. At this community level, there is more than a four-fold variation across the areas. At a small area level (Figure 11.10), the rate in the postcode sector with the highest rates is around twenty five times that of the area with the lowest – although, as always with such small area analysis, one should bear in mind that rates are based on a relatively small number of actual events.

ⁱⁱⁱ As with all data presented in this chapter, a full definition of this indicator is included in Appendix 1.

^{iv} These are primary care-based localities (mainly the old Local Healthcare Cooperative (LHCC) areas or, in some cases, the new Community Health (Care) Partnerships (CH(C)Ps)) with populations ranging from 20,000-140,000 people. For further details see ‘Preface to Chapters 2-12’.

Figure 11.9

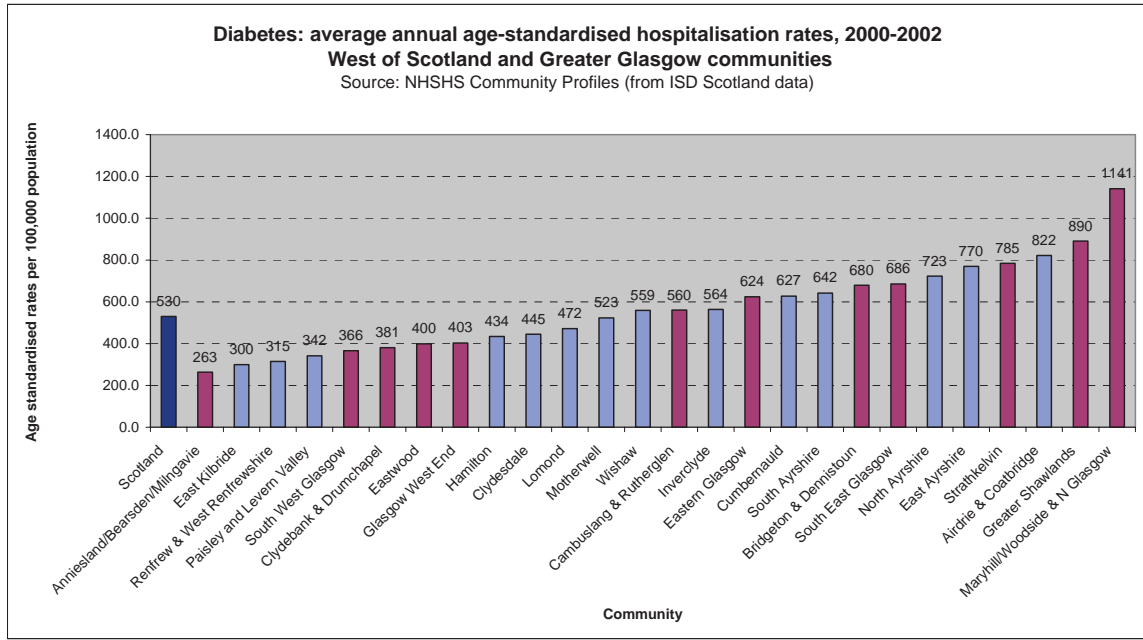
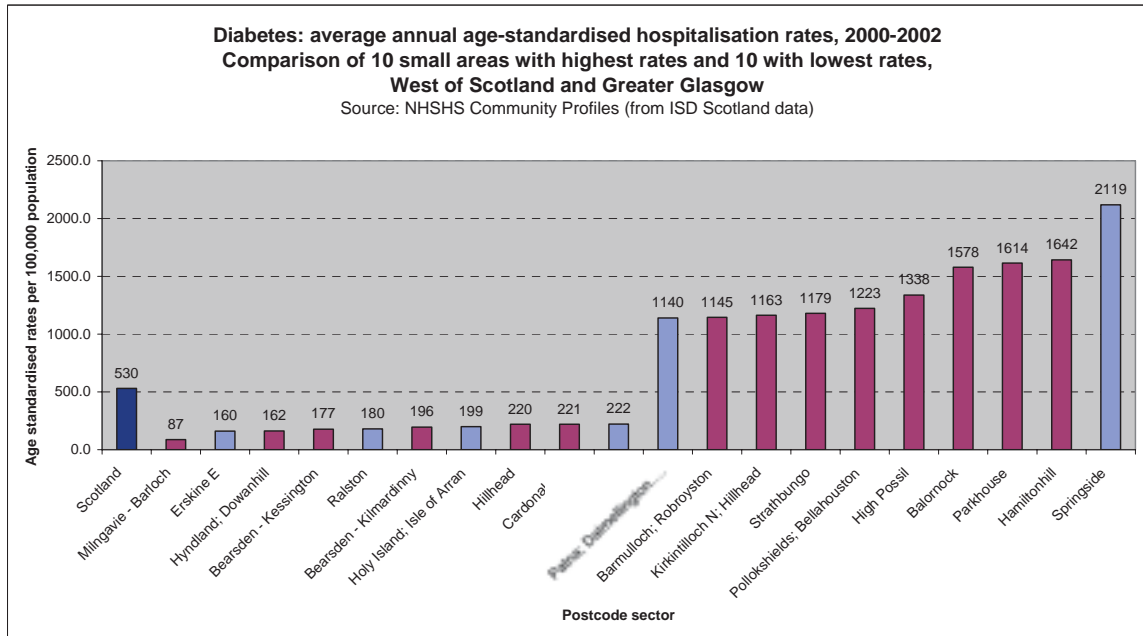


Figure 11.10



More striking still is the trend over ten years in rates of admission to hospital for diabetes. Nationally, rates more than doubled over the ten year period analysed. In terms of actual numbers, this equates to an increase from an average of 17,000 admissions per year at the beginning of the 1990s to around 40,000 admissions per year a decade later. As can be seen from Figure 11.11, this increase is mirrored in many parts of Greater Glasgow including Maryhill, Woodside & North Glasgow (the community with the highest rate of admission in Scotland, and where the rate also increased by almost 100% over the ten years), with some areas experiencing even steeper increases over the period (e.g. Greater Shawlands, where rates rose more than three-fold). Trends for postcode sectors (Figure 11.12) appear to show a widening gap between the small areas with the lowest rates of admission and those with the highest.

Figure 11.11

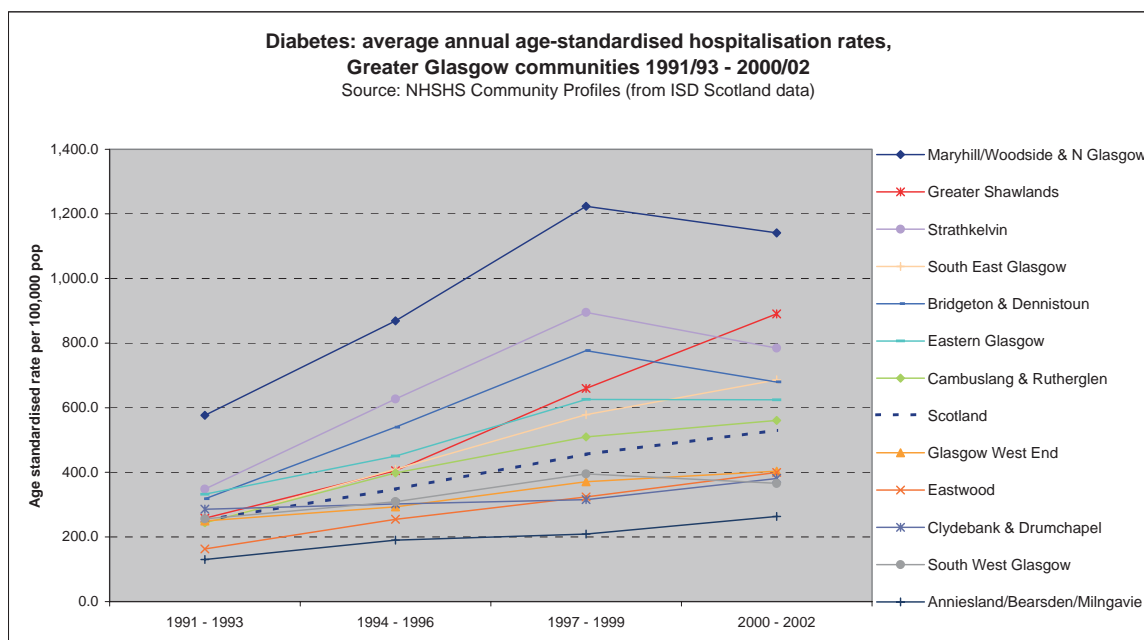
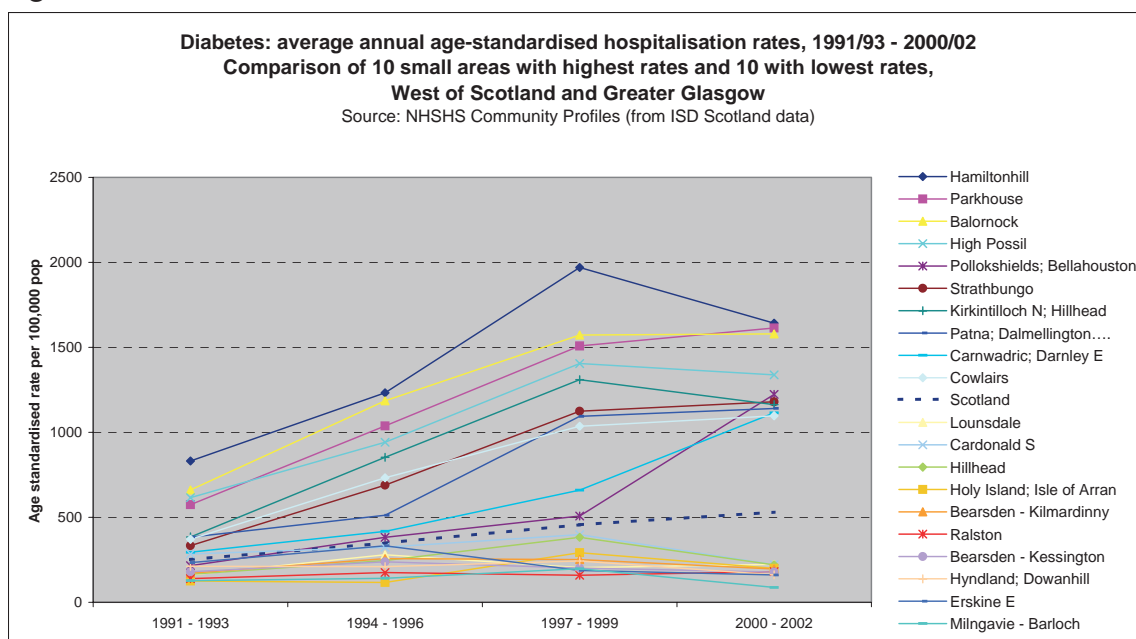


Figure 11.12



‘External’ causes

At a community level (Figure 11.13), a two and a half-fold variation in hospitalisation rates for ‘external’ causes is evident across the West of Scotland, with the rates in Bridgeton & Dennistoun also about 60% higher than the national figure. At a small area level (Figure 11.14), the variation is more extreme: in the period 2000-02, the postcode sector with the highest rates (Calton) experienced admissions to hospital for this reason at around three times the national rate, and about six times the rate of the small area with the lowest figure, (Newton Mearns).

Figure 11.13

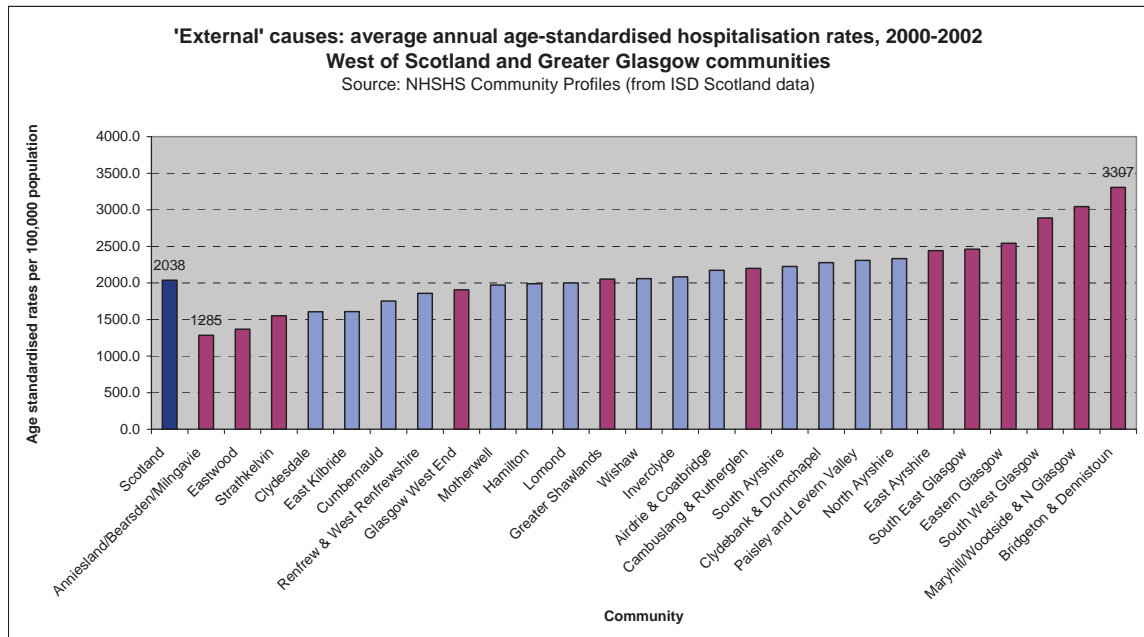
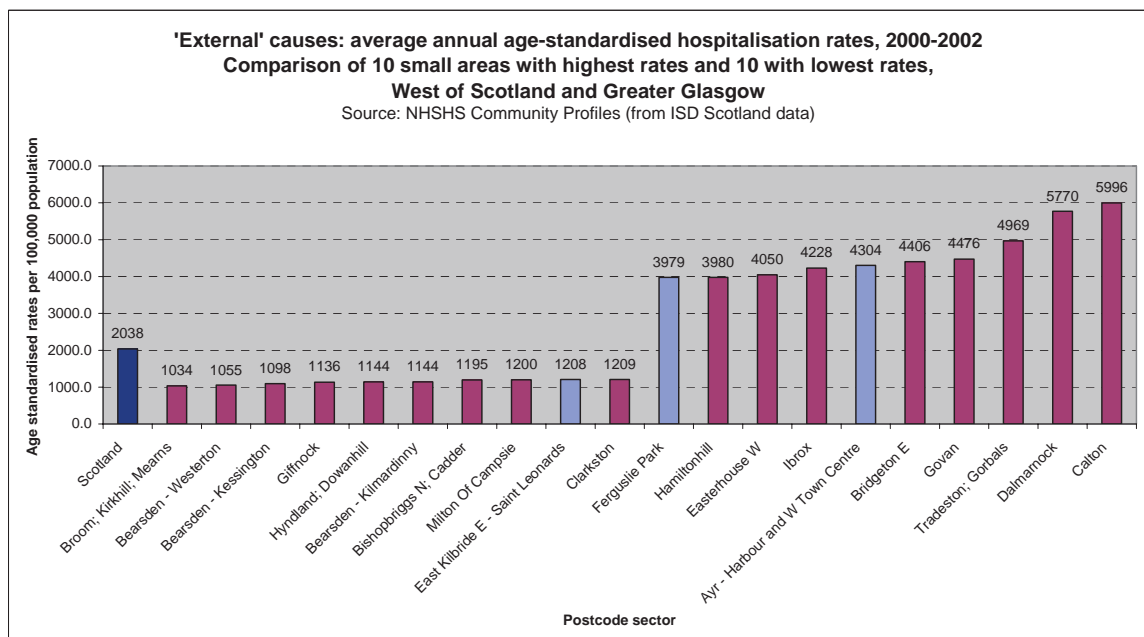


Figure 11.14



Over recent years, there has been a generally upward trend in admissions to hospital for this reason. Nationally, rates increased by around 12% between 1990-92 and 2000-02, and similar (and in some cases, greater) rises were evident within most Greater Glasgow communities (Figure 11.15). Interestingly, one of the few areas to buck this trend and show a decrease in rates for admission to hospital for this reason over the period was Bridgeton & Dennistoun, the community with the highest admission rate in Scotland.

At a small area level, however, Figure 11.16 shows the gap between the sectors with the highest rates, and those with the lowest rates, to be widening.

Figure 11.15

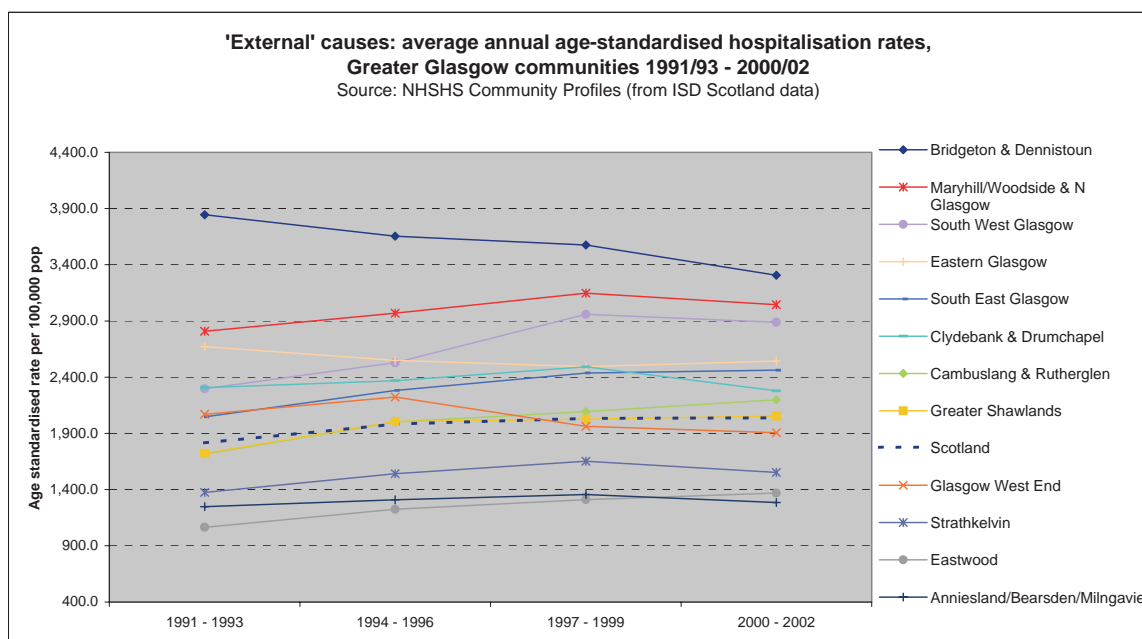
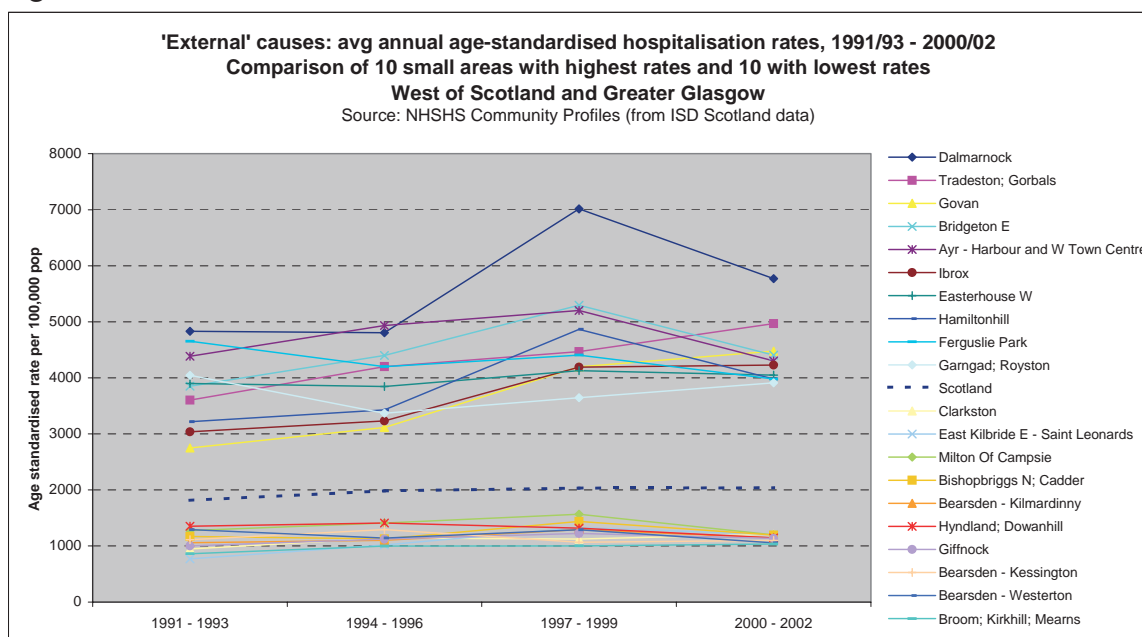


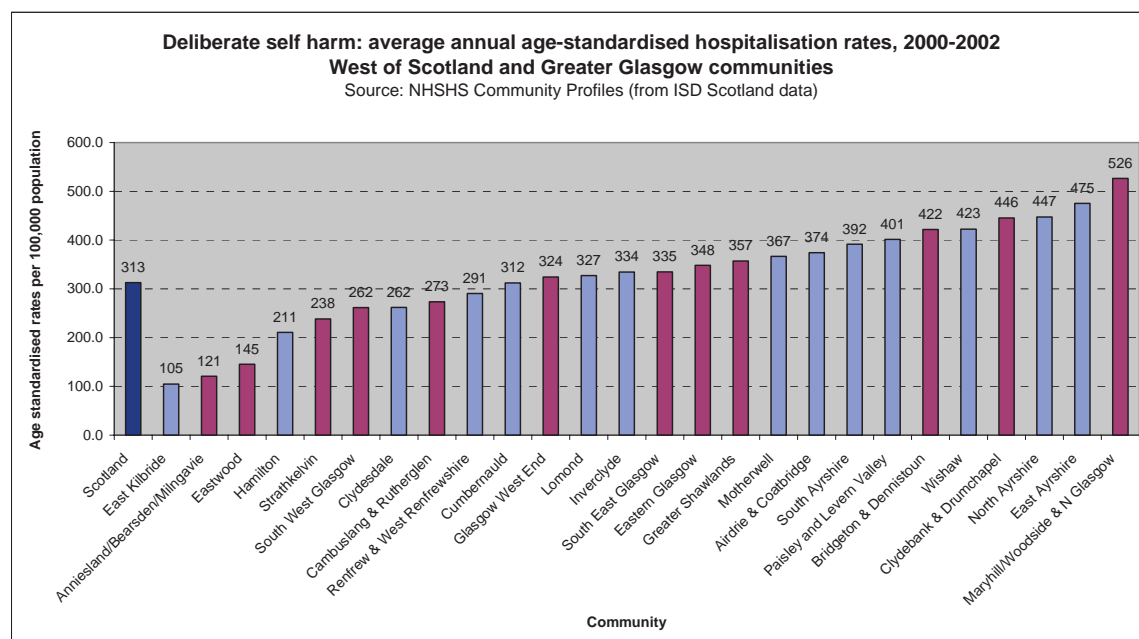
Figure 11.16



Deliberate self harm

Deliberate self harm is another indicator which must be interpreted cautiously. As with all hospital based data, rates of admission to hospital for this reason can be affected by proximity to hospital services. Also, there have been inconsistencies, historically, in the manner in which some of these admissions have been coded in hospitals. Despite these caveats, it is a valuable measure of this type of morbidity, and Figure 11.17 shows huge variation in hospitalisation rates for deliberate self harm across the West of Scotland: a five-fold difference between East Kilbride (the community with the lowest rates) and Maryhill, Woodside & North Glasgow (the highest).

Figure 11.17



Note that the rates presented in Figure 11.17 equate to more than 6,700 hospital stays on average per year across the West of Scotland.

Variation at the small area level is even more marked. However, given the relatively small number of events at this level, it is not shown here. Trends cannot be shown due to coding discrepancies prior to the mid 1990s^v.

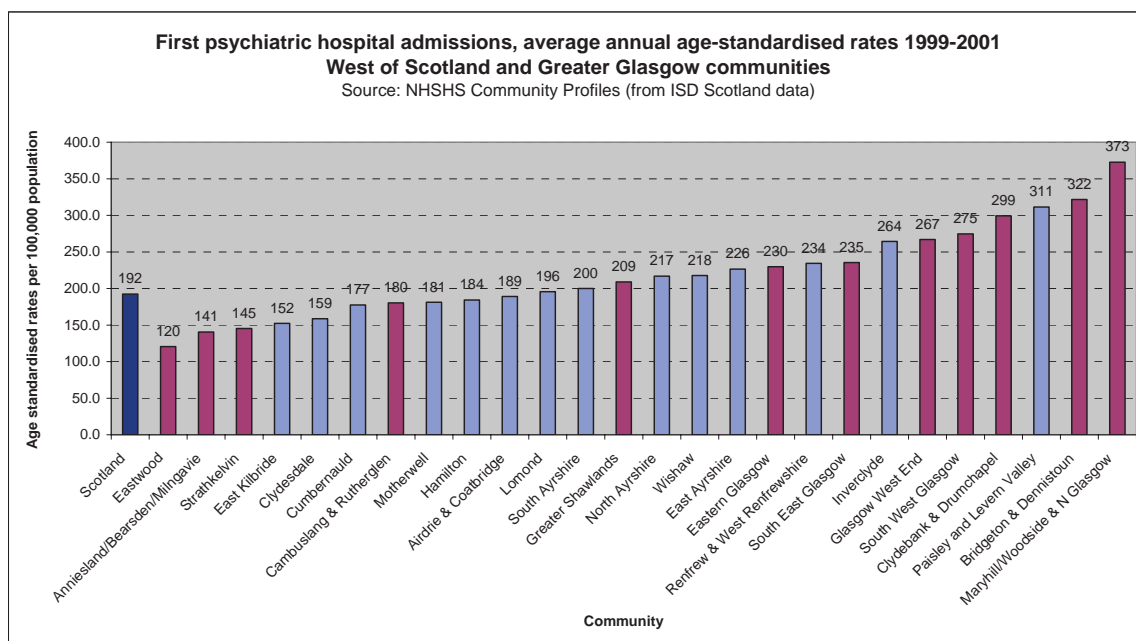
Trends in rates of suicide for the Greater Glasgow area are discussed in section 11.4 (mortality).

^v See Appendix 1 for more details.

Psychiatric hospital admissions

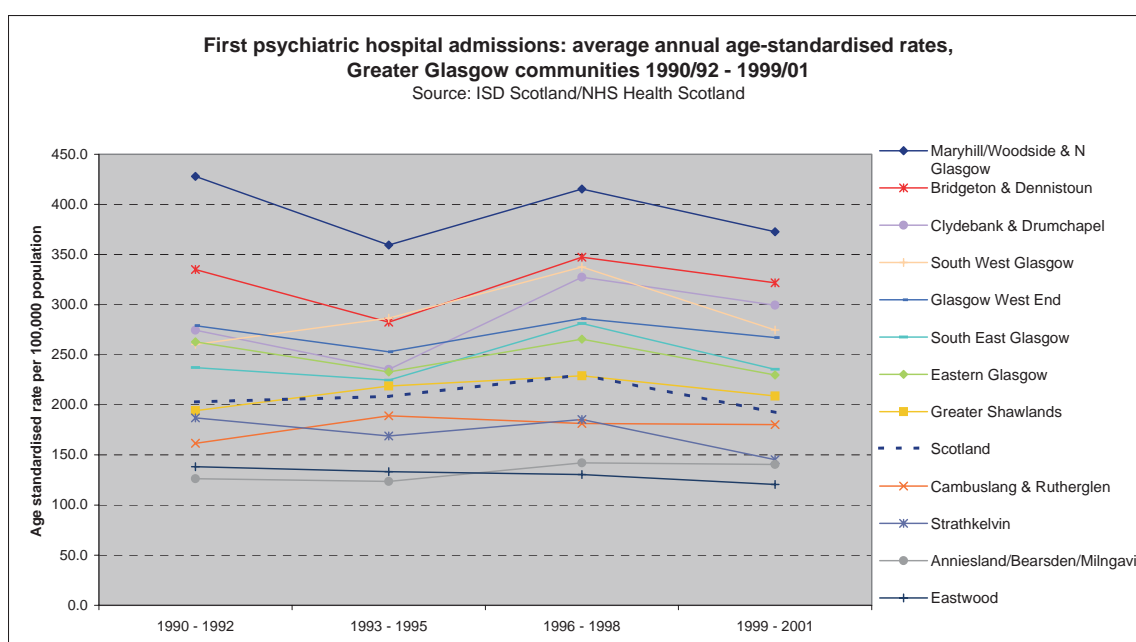
Figure 11.18 shows, by West of Scotland community, age-standardised rates for first admissions to hospital as a psychiatric inpatient. The highest rates of admission were recorded within the Maryhill, Woodside & North Glasgow community: between 2000 and 2002 the average annual hospitalisation rate within that community was twice that of the country as a whole, and three times the rate of the community with the lowest rate of admission, Eastwood. Note that the relatively high rates within the Paisley & Levern Valley community are probably influenced by the proximity of Dykebar Hospital in Paisley. Other areas may be similarly affected.

Figure 11.18



Trends at a community level are relatively flat but with no sign of the gap between 'high' and 'low' areas being narrowed (Figure 11.19).

Figure 11.19



Given the relatively small number of events recorded at a postcode sector level, this particular indicator is not presented here at a small area level.

11.3 Road accident casualties

Road accident casualties among children were discussed in Chapter 9: Children and adolescents. This section briefly considers trends in adult road accident casualty rates, taken from the 2004 constituency profiles³.

Figure 11.20 shows, by West of Scotland parliamentary constituency, road accident casualty rates (for all ages) per 10,000 population for 1991 compared to 2002. Nationally, rates fell by 25% over this ten year period. A similar decrease was evident across the West of Scotland constituencies, with the 1991 figure of almost 11,000 casualties falling to around 8,100 in 2002. As Figure 11.20 shows, this decrease was matched, and in some cases bettered, by the majority of the West of Scotland constituency areas, with notable falls in rates visible in Eastwood (50%), Paisley South (41%) and West Renfrewshire (39%), while rates in five of the Glasgow constituencies fell by more than 30%.

Figure 11.20

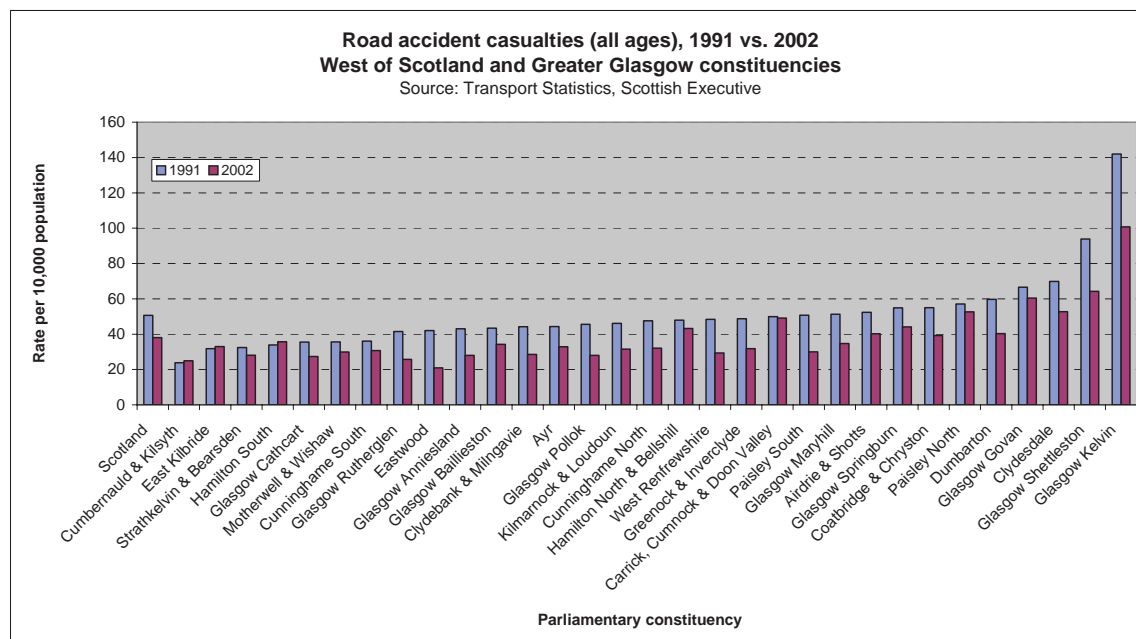


Figure 11.20 also shows that in 2002 the highest rates of road accident casualty were in the Glasgow Kelvin constituency, with a rate almost three times the national average. However it should be borne in mind that the Glasgow Kelvin constituency boundaries include the city centre and, given its high traffic volumes, this is likely to distort the residence-based rate presented. The rates of casualties for other constituencies with extensive road networks and/or above average traffic volumes may be similarly inflated for these reasons.

Despite these caveats it is noticeable that the casualty rates in a number of the more deprived constituencies (e.g. Glasgow Shettleston, Glasgow Springburn and Glasgow Maryhill) are above average, while rates are much lower than the national average in the affluent suburbs of West Renfrewshire and Eastwood. Interestingly, some of these deprived constituencies with high casualty rates also tend to have the *lowest* rates of car ownership, while the opposite is true of the more affluent constituencies: for example, while 68% of households do not have access to a car or a van in Glasgow Shettleston, the figure in Eastwood is only 20%.

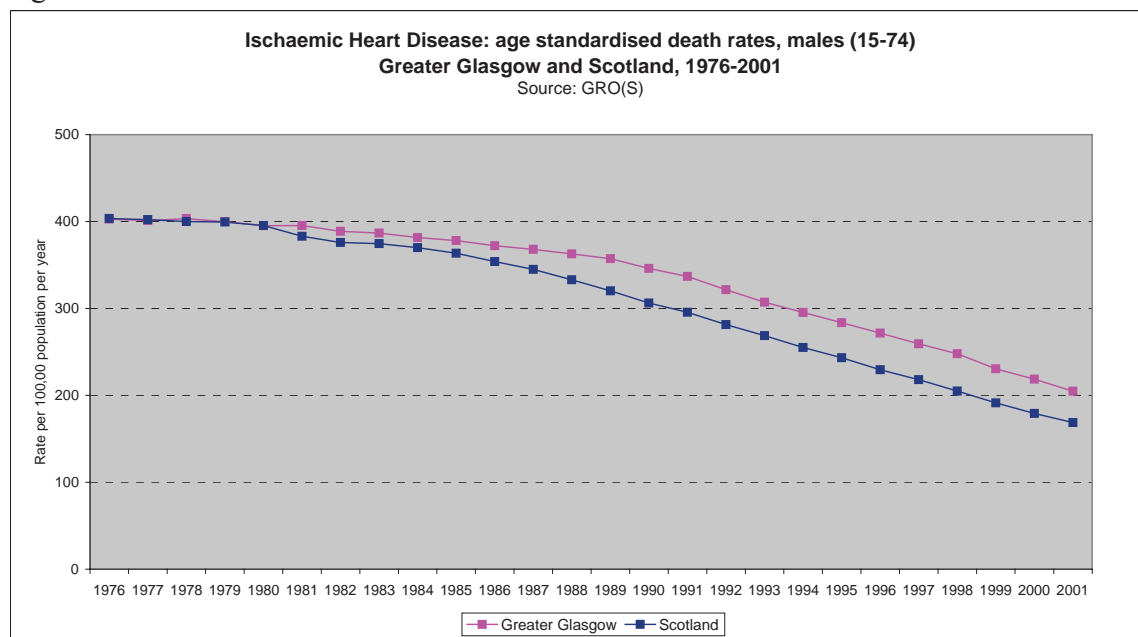
11.4 Mortality

This section briefly considers trends in mortality for the three leading causes – heart disease, stroke and cancer – as well as suicide. Note that deaths due to liver cirrhosis and, more broadly, all alcohol related mortality, are discussed in Chapter 7: Behaviour.

Heart disease

As is well known, heart disease is one of the three main causes of death in Scotland. Figure 11.21 shows, for Scotland and Greater Glasgow, age-standardised rates in ischemic heart disease for males aged 15 to 74 between 1976 and 2001.

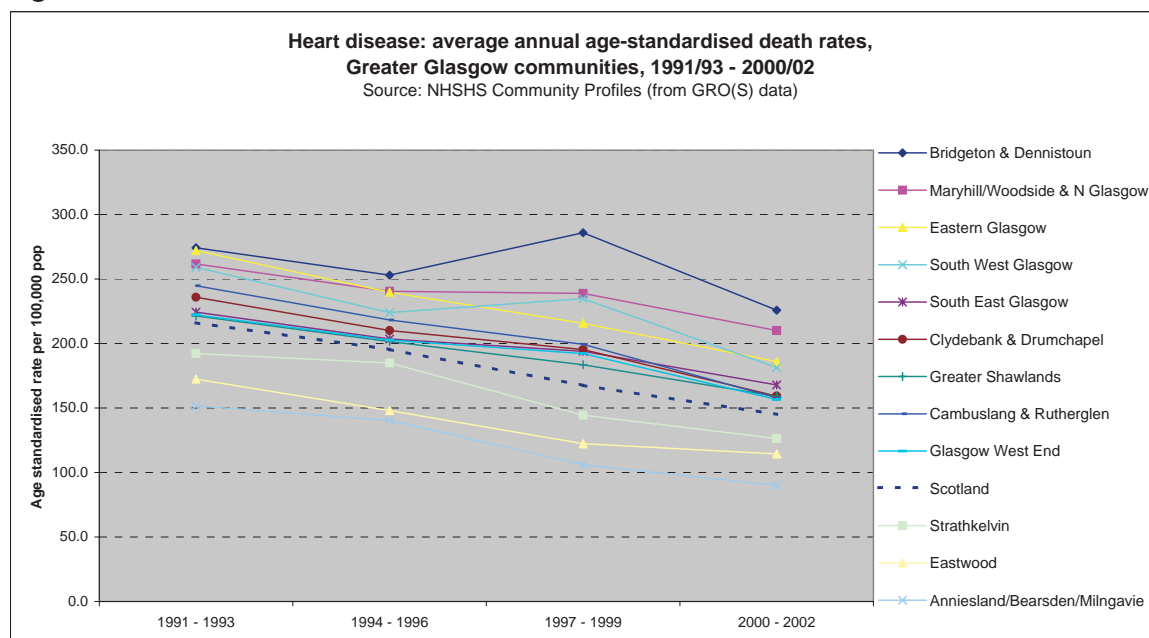
Figure 11.21



This shows that rates in Scotland, and in Greater Glasgow, have more than halved since the mid 1970s. Despite this good news, however, Figure 11.21 also shows that at the beginning of the period the rates for Greater Glasgow were identical to those of the country as a whole, but since then a gap between the two sets of rates has emerged. A similar picture can be seen for females.

Figure 11.22 shows that rates in heart disease mortality have also decreased across all the Greater Glasgow communities^{vi}. Across the ten year period presented, rates in Scotland fell by about one third, and a similar level of reduction is visible across most Greater Glasgow communities. This chart also shows that, as with so many other indicators, considerable variations in rates persist across these different areas.

Figure 11.22

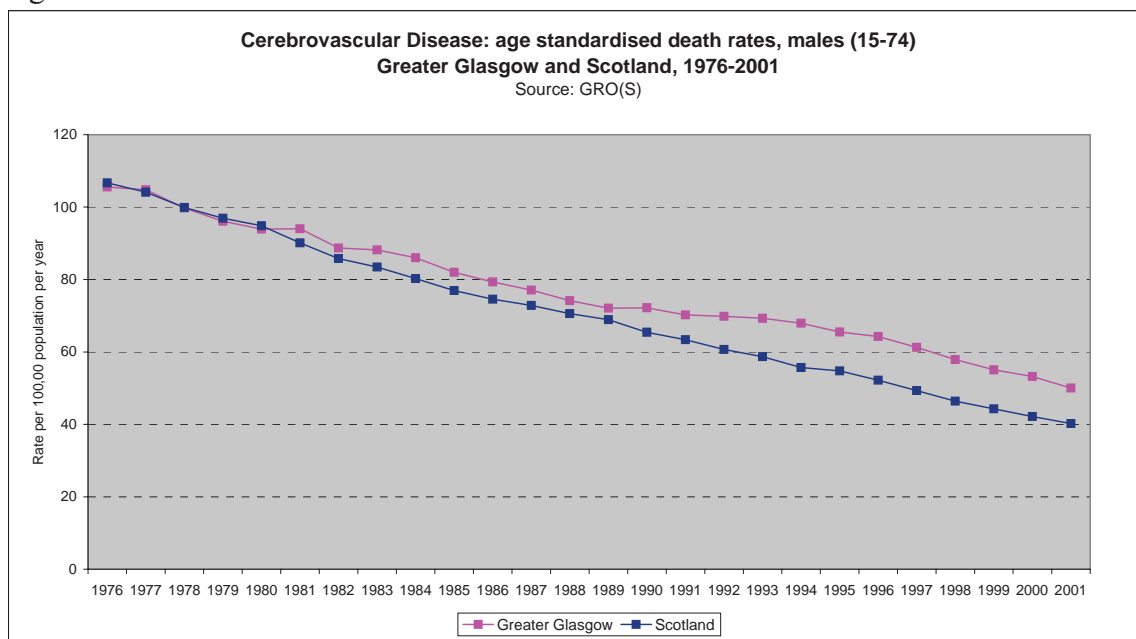


Cerebrovascular disease

Deaths from strokes (cerebrovascular disease) in Greater Glasgow show a similar long term trend to ischemic heart disease. Figure 11.23 shows, again for males aged 15 to 74 and again for Greater Glasgow and Scotland, mortality rates from stroke over a 25-year period. Although mortality rates have fallen dramatically over the period, a widening gap between the rates in Greater Glasgow and Scotland is again visible. A similar, though slightly less pronounced, gap is also seen in the equivalent trend for female deaths.

^{vi} Note that there are major differences in the definitions and calculation methods relating to the figures presented in Figures 11.21 and 11.22 and thus the rates in the two sets of graphs are not directly comparable. All definitions are included in Appendix 1.

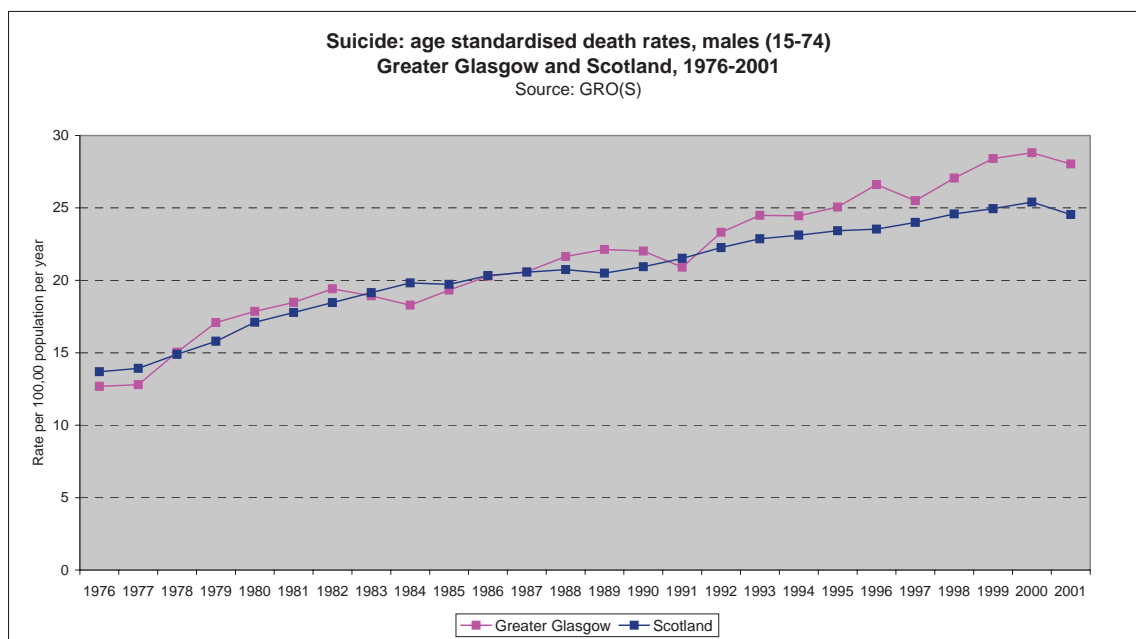
Figure 11.23



Suicide

Suicide remains the leading cause of death among young men in Scotland⁴. Figure 11.24 shows a 25-year trend in age-standardised rates of suicide among men in Greater Glasgow and Scotland. As can be seen, rates have more than doubled in Greater Glasgow over the period, and as with stroke and heart disease, there is evidence of a widening gap between the Greater Glasgow rates and those of Scotland, particularly in the last decade.

Figure 11.24



Cancer

The final cause of death discussed here is cancer. Figure 11.25 shows the average annual age-standardised cancer mortality rate across the various Greater Glasgow and West of Scotland communities in the period 2000-02. A similar, and predictable, pattern of variation is evident (lower rates in the more affluent communities, higher rates in the more deprived), although there is slightly less variation than in the equivalent data for heart disease mortality. The trend in cancer deaths is also downward: across Scotland between 1990-92 and 2000-02 deaths from all cancers dropped by 10%, and this level of decrease is mirrored in a number of Greater Glasgow communities (Figure 11.26).

Figure 11.25

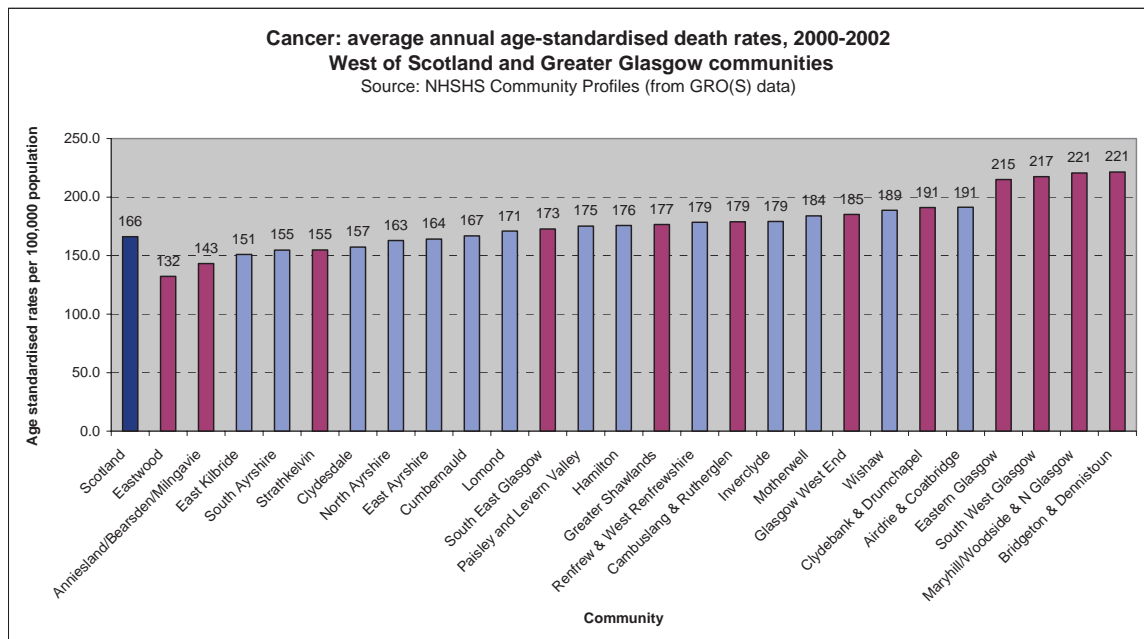
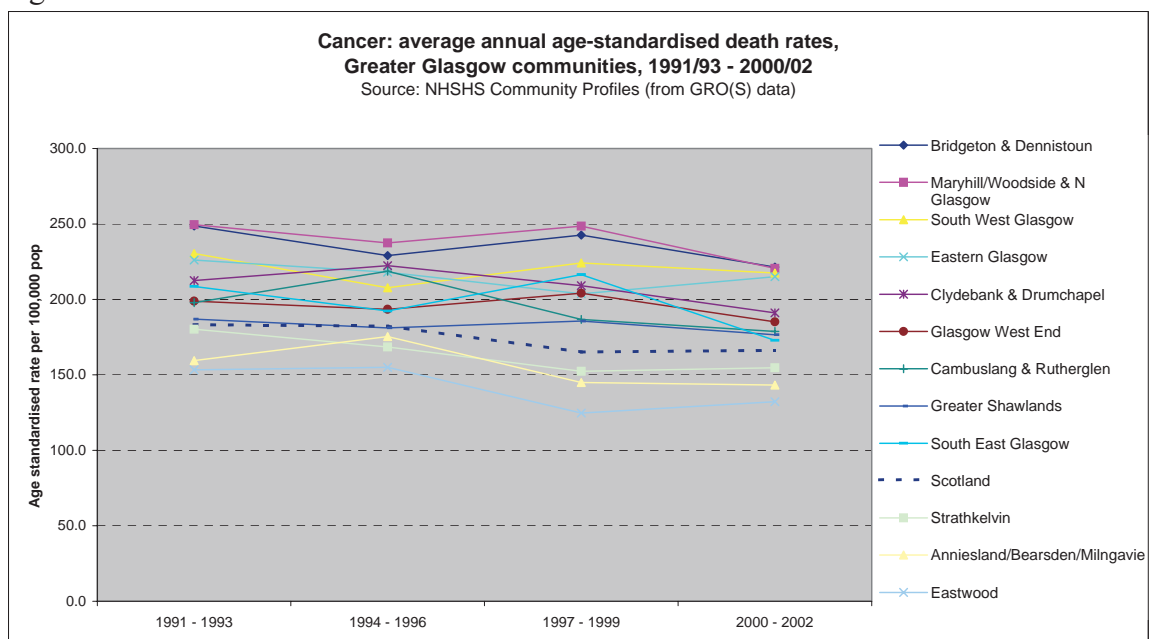


Figure 11.26



Focussing on one of the most common forms of cancer, the final two Figures in this section show long-term trends in lung cancer mortality. Figure 11.27 presents age-standardised rates for males aged 15-74, and Figure 11.28 presents the equivalent figure for females.

Figure 11.27

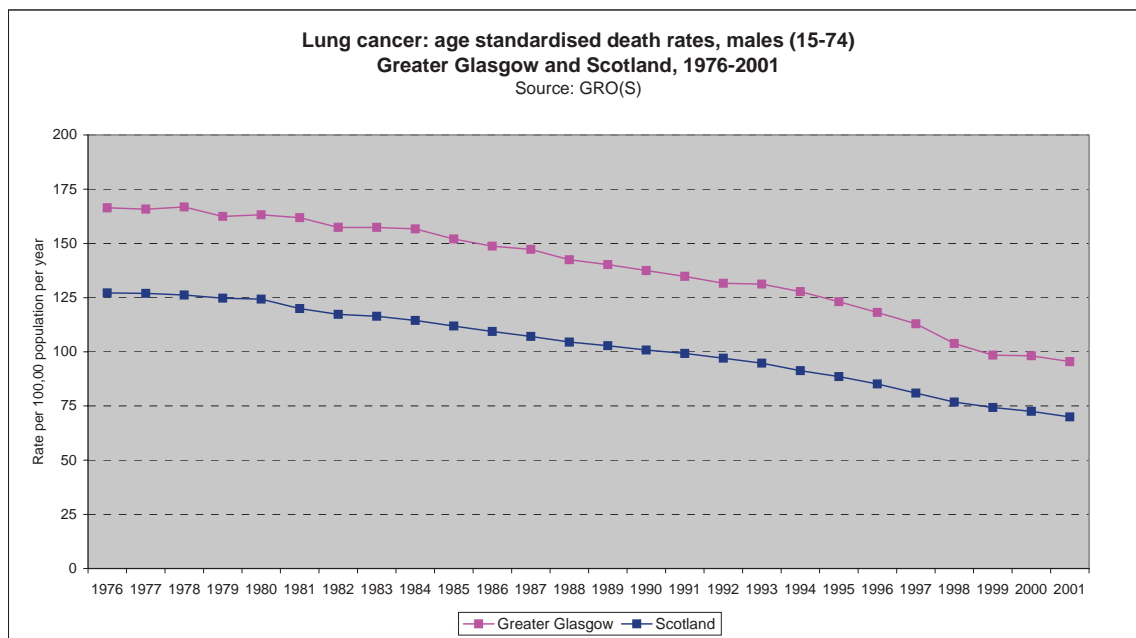
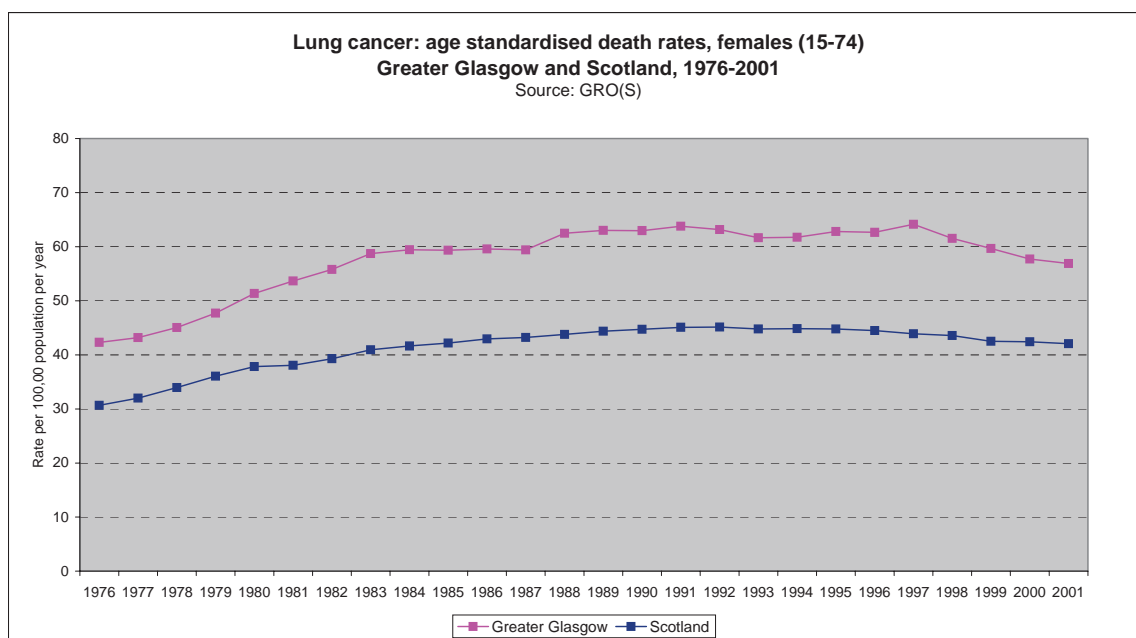


Figure 11.28



These Figures show two contrasting patterns. Although in both cases the rates for Greater Glasgow are well in excess of the national figures (and in fact are the highest of all the health board areas) the rates for males have been falling over the whole period, whereas the trend for females has seen a consistent rise, with a fall in rates only visible over the last four years. This reflects the fact that, historically, women in Scotland started smoking later than men, and it is hoped that this decline in mortality rates will now continue, and a similar pattern to that seen for males will emerge.

11.5 Premature mortality

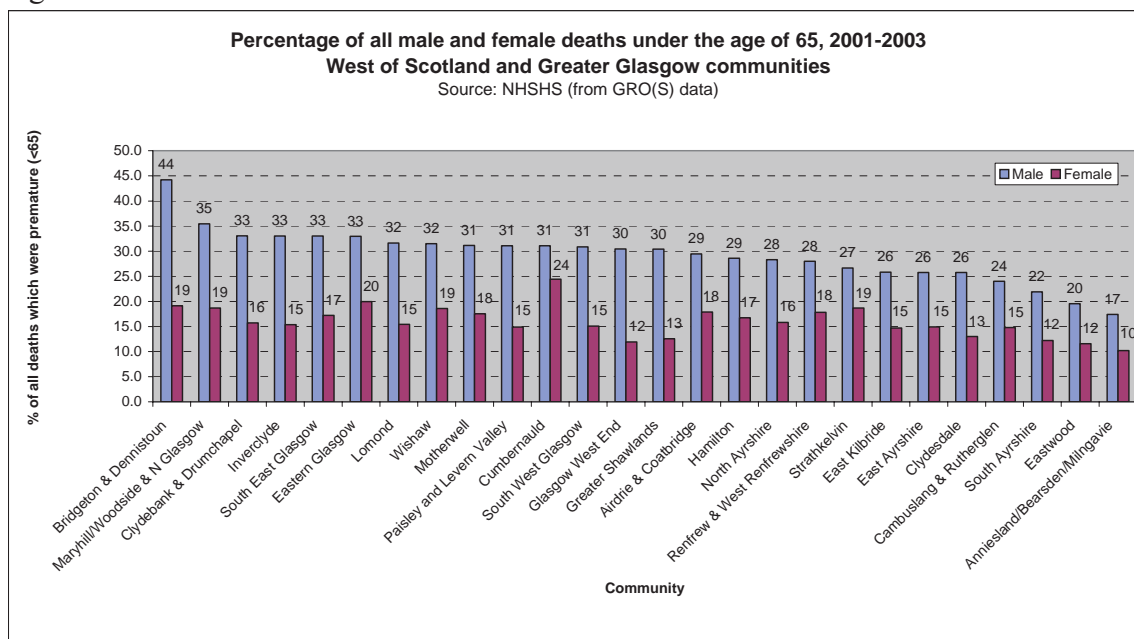
This final section of the chapter looks briefly at premature mortality in Scotland and some of the West of Scotland communities. For the purposes of simplicity, premature mortality is defined simply as deaths under the age of 65. Clearly, to examine this issue in more detail, a more sophisticated definition would be required. However, for the overview presented here, our simpler definition suffices.

Examination of premature mortality for the years 2001-2003 shows that:

- More than one fifth (21%) of all deaths in Scotland occur under the age of 65.
- For males the figure is yet more striking: more than a quarter of males die before their 65th birthday (27%). For females the figure is 15%.
- Across Greater Glasgow and the West of Scotland, the overall figures are very similar to those for the country as a whole. However, this masks considerable variation across the communities of the West of Scotland. For example, in Bridgeton & Dennistoun one third of all deaths occur in people under-65, and for males that figure rises to 42% (the figure for females is 20%). In contrast, only 15% of all deaths in the more affluent Eastwood community were in people under 65 (19.5% of male deaths, 12% of females). This is illustrated in Figure 11.29^{vii}.

^{vii} Note that these proportions do not take account of the age structure of the population, and thus could be influenced by higher than average under-65 populations in any of the communities.

Figure 11.29



This begs the question as to whether the causes of premature death are different from the causes of death for all ages. An analysis of the ten most commonly occurring single causes of death between 2001 and 2003 shows the following:

- In Scotland, the ten most common causes of death for the total population all relate to the three main ‘killers’ (heart disease, cancer, stroke) as well as diseases such as chronic obstructive pulmonary disease (not shown). In Greater Glasgow, the picture is similar, but with one important difference: the seventh most commonly recorded principal cause of death in the period was alcoholic liver disease (2.7% of all deaths, numbering 860 over four years).
- However, the picture for the ten most common reasons for *premature mortality* (<65) is different. Figure 11.30 shows this for all Scotland (note that alcohol related conditions are now more prominent), while Figure 11.31 shows the same breakdown for Greater Glasgow: this shows that the single most common reason for premature death between 2001 and 2003 was alcoholic liver disease (9% of all premature deaths; 674 over the four-year period).

Figure 11.30

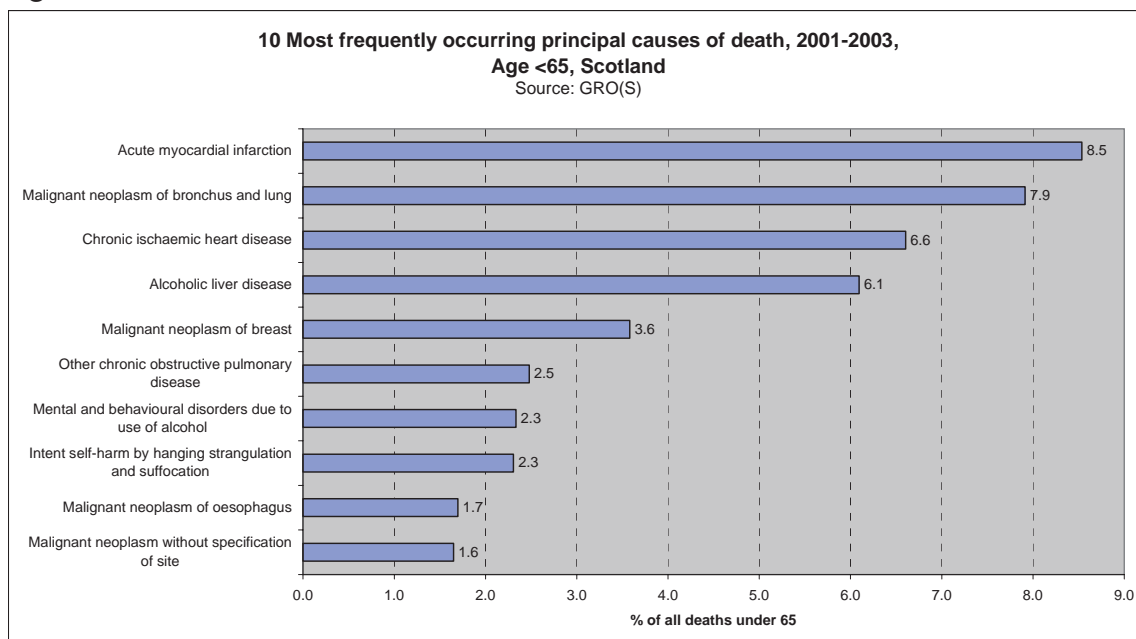
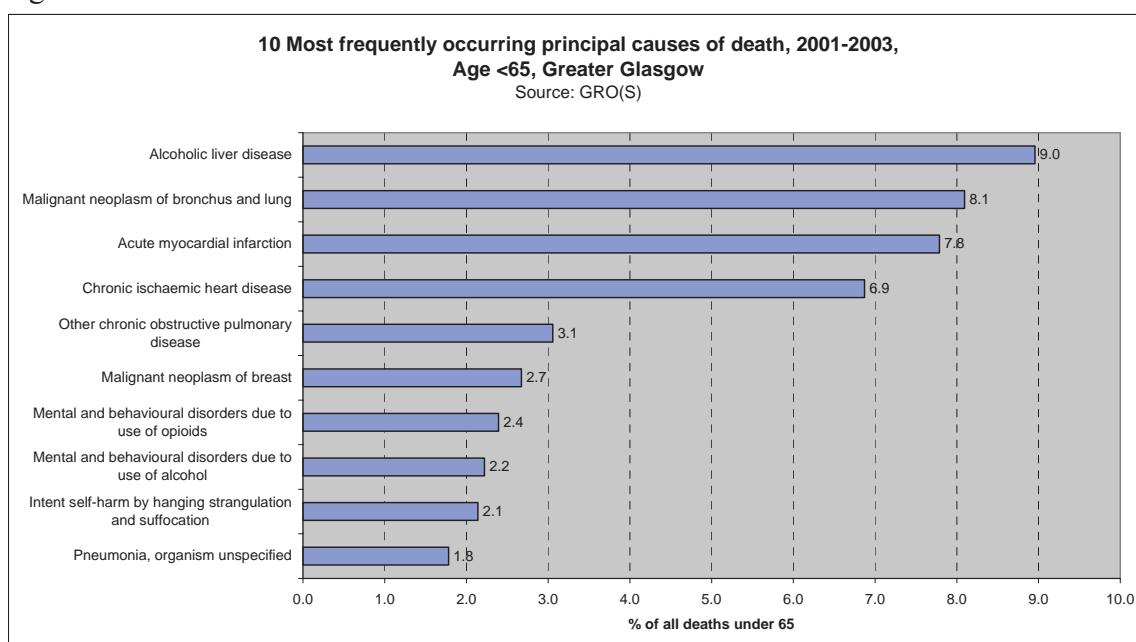
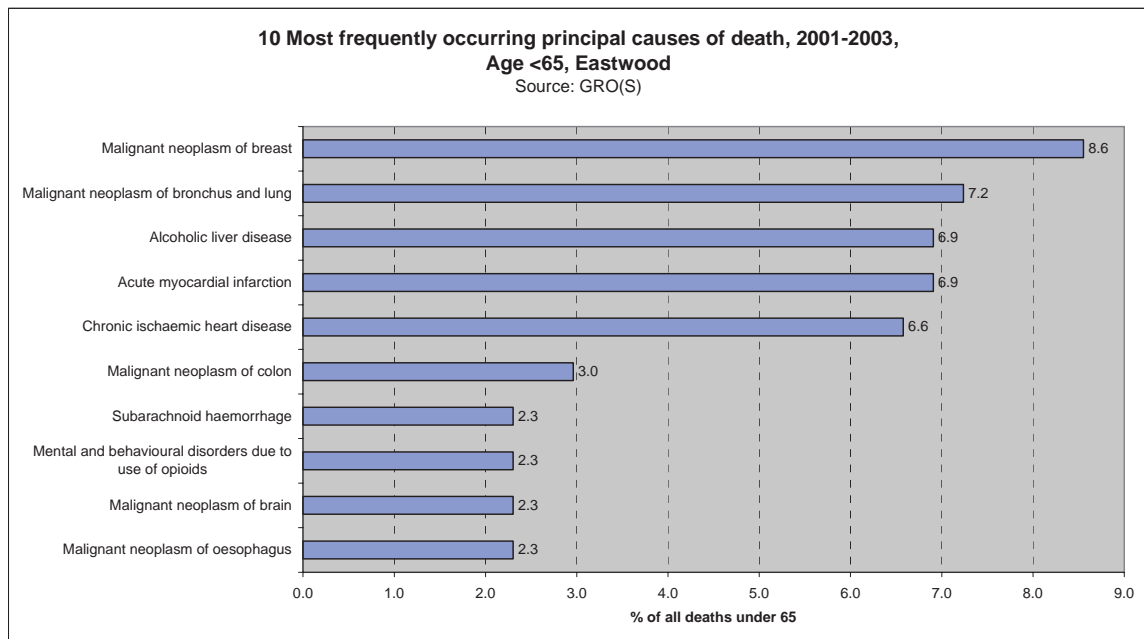


Figure 11.31



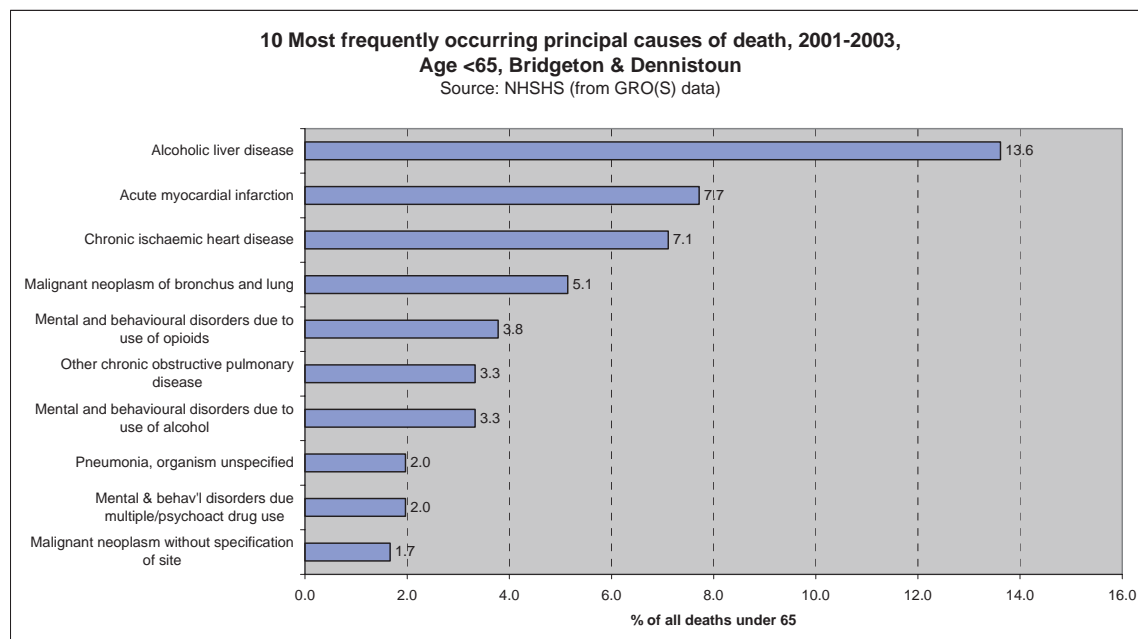
- Considerable differences in causes of premature mortality can be seen across the different West of Scotland communities. Figures 11.32 and 11.33 show the most frequently occurring causes of premature death in Eastwood (an area with one of the lowest proportions of premature deaths) and Bridgeton & Dennistoun (the area with the highest). Although in the former area, alcoholic liver disease does feature, the total number of premature deaths is so small in this area that, in fact, this only equates to around 20 deaths over three years. In contrast, by far the most common cause of premature mortality in Bridgeton & Dennistoun was alcoholic liver disease (14% of all premature deaths, and equating to 90 deaths over the period), while alcohol and drugs also feature prominently.^{viii}

Figure 11.32



^{viii} It should be noted that a number of homeless hostels have operated in the Bridgeton & Dennistoun area in the time period covered. However, a separate analysis was run excluding, where possible, all deaths in known hostels and although this reduced the total number of deaths slightly, it did not alter the overall pattern presented in Figure 11.33.

Figure 11.33



The considered wisdom in relation to mortality and deprivation in Scotland is that people in deprived areas die of the same things as people in more affluent areas, only they do so a number of years earlier⁵. This may be true when looking at very broad categories of disease; however, it is not borne out by examination of individual causes of death. There are important differences in the causes of premature deaths compared to all deaths, with the influence of suicide, drugs and, especially, alcohol much more prominent. Premature mortality, and therefore, these types of cause of death, is much more common in deprived areas.

Summary

This chapter has highlighted a number of important points with regard to illness and disease in the West of Scotland (with a particular emphasis on Greater Glasgow):

- Estimates of primary care-based disease prevalence, although limited and with significant caveats, provide us with an overview of the total numbers of the Greater Glasgow population affected by particular conditions. They also confirm the higher levels of these conditions in more deprived areas.
- Important types of hospital admission, such as diabetes, have been increasing significantly. The levels, and variations in levels, of admission to hospital as a result of deliberate self harm are also striking, as is the long term trend in suicides among men.
- Better news is provided by the decrease in road accident casualties and, particularly, the decline in rates of death from heart disease and stroke. However, the gaps that have emerged between Greater Glasgow and the rest of the country in mortality rates for the latter two causes, and for suicides, are of concern.
- The West of Scotland's relatively poor levels of life expectancy are reflected in the fact that around one fifth of the population die before their 65th birthday. The figures for male deaths are of greatest concern: a quarter of male deaths are premature, rising to over 40% in Bridgeton & Dennistoun, and over a third in other deprived areas.
- Finally, the influence of alcohol as a cause of premature mortality is further evidence of the worrying trend in alcohol related harm discussed in Chapter 7: Behaviour.

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- ² McLoone P. Increasing mortality among adults in Scotland 1981 to 1999. *European Journal Of Public Health* 2003; 13: 230-234
- ³ NHS Health Scotland. Constituency Health and Well-being Profiles 2004
<http://www.scotpho.org.uk/constituencyprofiles>
- ⁴ Scottish Executive. Health in Scotland 2002. Edinburgh: The Stationery Office, 2003
<http://www.scotland.gov.uk/Publications/2003/06/17181/22128>
- ⁵ Chalmers J, Capewell S. Deprivation, disease and death in Scotland: graphical display of survival of a cohort. *BMJ* 2001; 323: 967-968

“While parts of Glasgow have prospered with greater employment and better paid middle-class jobs, in other parts ‘worklessness’ and low income are commonplace.”

“The issue for Glasgow is that greater reductions in disease have been achieved elsewhere and so Glasgow’s health has become worse relatively in comparison to other UK cities.”

“Estimates of life expectancy suggest that Glaswegians not only live shorter lives, but succumb to disease and illness earlier in life.”

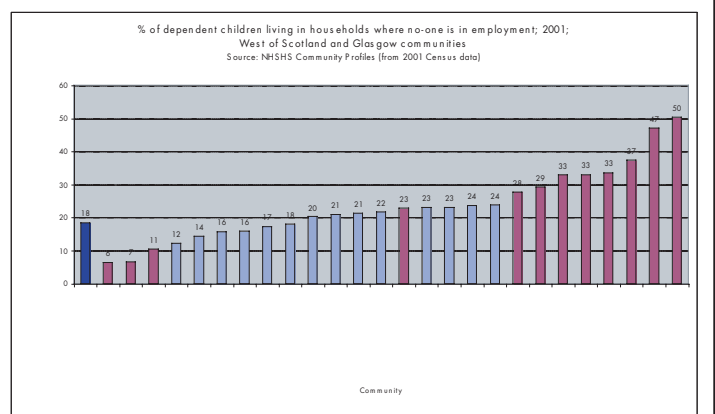
“The increasing impact of alcohol is undeniable: simple projections of alcohol related deaths based on recent trends suggest that the number of alcohol related deaths in Greater Glasgow could double in the next twenty years.”

“Addressing and reducing health-damaging behaviours will remain a major challenge.”

Guide to data presented in this chapter

All the charts which present data at a 'community', or postcode sector level, employ the following colour scheme: communities/sectors within Greater Glasgow are shaded dark red; other West of Scotland areas are shaded light blue. Where possible, the same colour scheme has been incorporated into other charts employing different geographical breakdowns (e.g. in charts by council area, Glasgow City is shaded dark red; the other West of Scotland council areas are coloured light blue).

See Preface to Chapters 2-12 for more details.



Chapter 12: Past and future trends

In preceding chapters, past and future trends for a number of demographic, economic and health indicators have been described. In this chapter, we aim to synthesise these observations in order to demonstrate important linkages, for instance between the economy and health, to show where current trends may lead and to highlight major issues requiring action.

In terms of **population** changes there are a number of trends which have exerted important influences on the city and surrounding areas:

- Since the mid-1970s the death rate in the city has exceeded the birth rate. Without a rise in the birth rate or inward migration, Glasgow's population is likely to drop further;
- Glasgow's ethnic minority population has risen in recent years (to 5.5% in 2001) and looks set to increase further, particularly taking into account the recent rise in the asylum seeker and refugee population;
- Glasgow has a low dependency ratio – the ratio of the young and old to the working age population – in comparison to other West of Scotland councils and to Scotland and is predicted to retain this relatively low ratio until at least 2024. In comparison, the dependency ratio for every other West of Scotland council is predicted to rise as populations grow older;
- While populations in most areas will fall, household numbers are predicted to rise. In Glasgow, it is predicted single adults will account for 49% of all households in the next ten years, while lone parent households may rise to make up almost one in two of households with children.

Demographic changes have already driven service changes. For example, the drop in the school age population has led to amalgamations of schools across Glasgow. However, it is in the working age population that the health of Glasgow as a city and the overall health of its population will be determined. Glasgow's current low dependency ratio gives the city, theoretically, a healthy economic employment base. However, this does not take account of people of working age who are not working or are unable to work due to incapacity, of which Glasgow has a high proportion.

A number of trends related to the **economy** are also notable:

- There are now more women than men in employment in Glasgow and part-time work has grown to represent more than a quarter of all jobs;
- The service sector has grown to become the most important sector of Glasgow's economy, while manufacturing employment has shrunk;
- One of the results of these changes is that the proportion of middle class jobs in Glasgow has doubled over a twenty year period;
- Income for those in work has risen in recent years, both nationally and in Glasgow;
- There has been an overall trend towards greater numbers of households with access to a car.

However these overall changes do not tell the whole story. Among those in employment, income inequalities have widened in recent years with those in the best paid occupations having gained more, relatively, and far more, absolutely, in terms of pay. In Glasgow, 85,000 people (19% of the Scottish total) are without work due to unemployment, illness or disability and 28% of the city's population (over 160,000 people) is defined as living in income deprivation. Although there are no trends for these measures, it seems unlikely that either of these figures has changed significantly in recent years.

In addition, house prices have risen hugely in the last ten years, and in Glasgow average house prices have caught up with the Scottish average. However, prices have now reached a level in many areas where affordability has become a very real issue, especially for those on lower incomes.

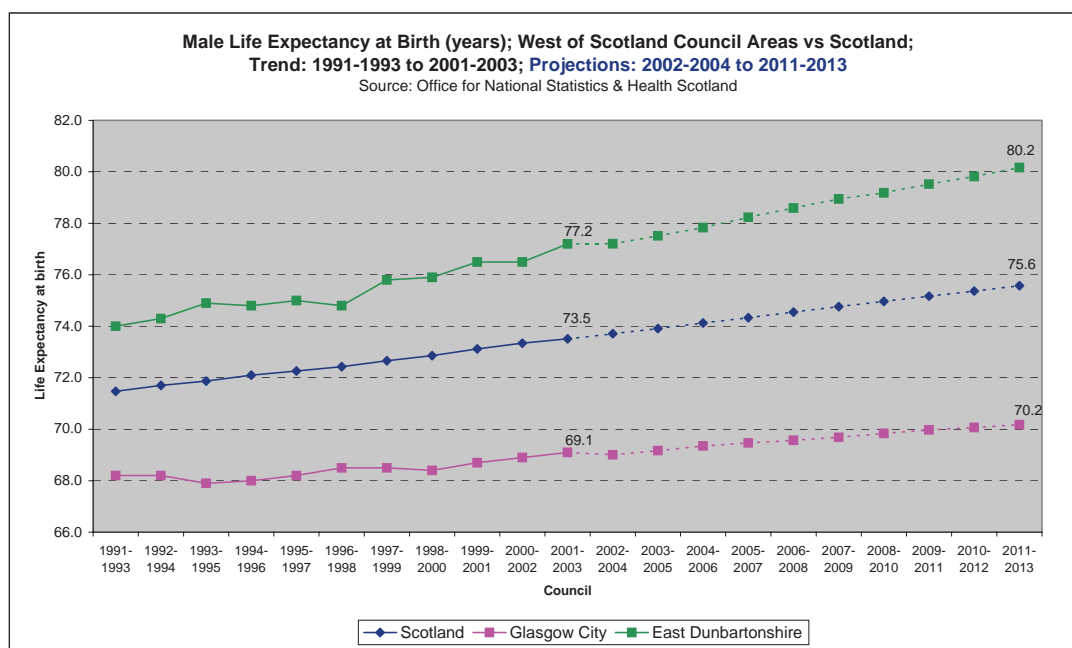
Participation in higher **education**, a marker for future employability in the knowledge economy, has risen, but only modestly in recent years. The proportions of young people from deprived areas reaching university has increased, but there has not been an appreciable narrowing of the gap in participation rates between affluent and deprived communities.

In summary, while parts of Glasgow have prospered with greater employment and better-paid middle-class jobs, in other parts 'worklessness' and low income are commonplace.

Turning to **health**, despite Glasgow's current poor position relative to other parts of Scotland and the UK, there have been successes. Infant mortality has reduced dramatically – perhaps to a level where further significant reductions may be much harder to achieve – and overall mortality, and that related to specific chronic diseases (heart disease, stroke and cancer), has fallen. The issue for Glasgow is that greater reductions have been achieved elsewhere and so Glasgow's health has become relatively worse in comparison to other UK cities.

Estimates of life expectancy suggest that Glaswegians not only live shorter lives, but also succumb to disease and illness earlier in life. Future trends are difficult to predict. However, a simple linear extrapolation of current life expectancy trends in the West of Scotland suggests that, while life expectancy for both men and women will increase, the increases will be greater in the more affluent areas of East Dunbartonshire and East Renfrewshire compared to Glasgow. Figure 12.1 shows that the gap in male life expectancy across West of Scotland councils, which was eight years in 2001-03, is forecast to widen to ten years by 2011-13.

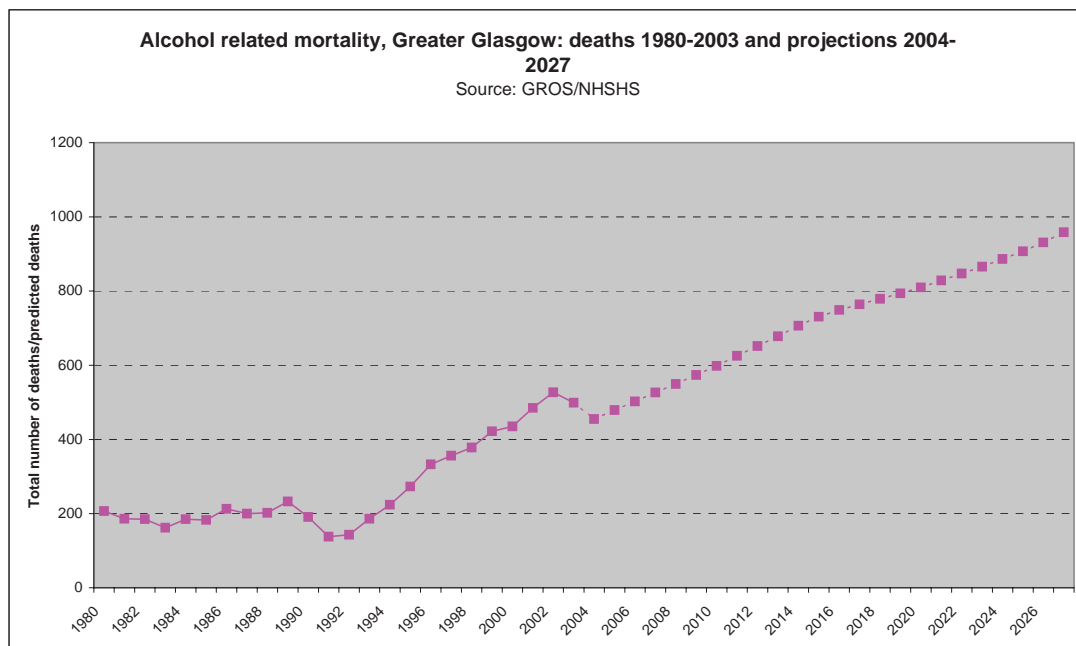
Figure 12.1



Trends in **health behaviour** will have an impact on future disease and mortality levels. Smoking levels, while still high, have reduced in recent years and may drop further depending on the success of the imminent legislation to control smoking in public places together with other local strategies. However, other behavioural trends are less promising. Obesity levels have risen to the extent that in Greater Glasgow a fifth of males and almost a quarter of females are now estimated to be obese, with well over half classified as overweight. Trends in hospitalisation for diabetes, much of which is associated with obesity, have risen dramatically in recent years.

Another major concern relates to alcohol. While accurate information on consumption is difficult to obtain, the increasing impact of alcohol is undeniable. There are estimated to be more than 13,500 ‘problem alcohol users’ resident within Glasgow City, and since the beginning of the 1990s, there has been a striking increase in numbers of alcohol related deaths and hospitalisations within both Scotland and the Greater Glasgow area. Simple projections of alcohol related deaths based on recent trends suggest that the number of alcohol related deaths in Greater Glasgow could double in the next twenty years (Figure 12.2).

Figure 12.2



The impact of illicit drugs should not be overlooked either. Between 1996 and 2004, drug related deaths in Greater Glasgow rose by a third. There are estimated to be around 25,000 problem drug users in the West of Scotland, of whom more than 11,000 live in Glasgow.

Two other sets of trends are also worthy of consideration. The **physical environment** chapter showed that despite improvements in overall house conditions and dramatic decreases in levels of overcrowding, housing-related problems persist for considerable numbers of residents of Greater Glasgow and the West of Scotland. Furthermore, the arguably unsustainable predicted rise in traffic volume clearly merits consideration in any future plan for the city.

Finally, **children** are the future of any city. Thus, the relatively high number of children being brought up in potentially problematic environments (e.g. as children of substance misusers, in care, in workless households) is a concern, as are the worrying levels of childhood obesity, poor dental health and potentially harmful behaviours (smoking, drinking, drug taking) that have also been presented in this report.

The evidence from this overview is that future demographic and health-related trends for Glasgow are likely to be challenging. Also, the health of Glasgow's economy is vital to the health of Glasgow. Efforts to raise income levels among those on the lowest incomes, to reduce the city's 'workless' population and to improve skills and education levels could be protective for health, and help prevent further widening of health inequalities. Addressing and reducing health-damaging behaviours will remain a major challenge.

Chapter 13: Summary and discussion



Chapter 13: Summary

This final section of the report summarises the main themes that have emerged from the preceding chapters. An accompanying discussion paper will be published to encourage consideration of the implications of these findings for national and local policy and practice. The key question in this regard is whether current approaches will manage to address the challenges highlighted and sustain the improvements achieved. If not, what other approaches need to be considered?

13.1 Summary of report

Summary of Chapters 2-12

The **historical** analysis of Glasgow highlighted the extraordinary growth, and recent decline, in the size of the city's population; the declining birth and death rates; the huge advances in public health (illustrated by the fall in infant mortality and improvements in life expectancy); and the persistence of health inequalities across the city.

Glasgow's current **population** is characterised by a comparatively high proportion of working age adults, and much higher levels of pensionable women compared to men. Future trends show a further decline in the population as a whole but increases in the overall numbers of households, and especially single adult and lone parent households. For example, in ten years' time the latter are expected to make up half of all the households with children in Glasgow.

Life expectancy in Glasgow currently stands at 69 years for males and 76 for females, but huge variation exists across different areas (e.g. for males, a fifteen year gap between communities in Greater Glasgow). The gap in life expectancy between the least and most affluent parts of Glasgow has widened noticeably over the last 20 years.

The **economy** of Glasgow has changed considerably in recent times. It is now one dominated by the service sector, employing more women than men, and where the proportion of 'middle class' jobs has doubled in 20 years. Although unemployment levels have decreased, 30% of the working age population are economically inactive, and almost the same proportion of the total population lives in 'income deprivation'. Income inequalities are increasing.

The analysis of issues relating to the **social environment** has shown that Glasgow is a city where deprivation/affluence clearly matters, whether it is in relation to educational attainment, the chances of being a lone parent, or likelihood of being affected by crime. And, while for some measures of social capital Glasgow's profile is quite positive (e.g. in terms of trust, low levels of isolation, high levels of satisfaction with the local area), other measures, particularly levels of violent crime, domestic abuse and imprisonment, highlight issues of major concern that require concerted attention.

Examination of the **physical environment** of Greater Glasgow and the West of Scotland has shown that despite improvements in overall housing conditions and dramatic decreases in levels of overcrowding, housing-related problems persist for many people. Other environmental concerns include the arguably unsustainable predicted rise in traffic volume, and a number of issues around ‘environmental justice’.

Behavioural factors of concern include the worrying rise in levels of alcohol related harm, obesity, sexually transmitted infections, and drug related deaths. In contrast, the prevalence of cigarette smoking is falling, although inequalities in prevalence persist and are a major cause of the inequalities in life expectancy seen across Greater Glasgow.

An examination of issues around **pregnancy and childbirth** shows that despite recent improvements, Glasgow still has relatively high rates of teenage pregnancies and of smoking in pregnancy, and low rates of breastfeeding. Deprivation has a notable negative impact on all of the above, and is also associated with much younger ages of first-time mothers.

The relatively high number of **children** being brought up in potentially problematic environments (e.g. as children of substance misusers, in care, in workless households) is a concern. Worrying levels of childhood obesity, poor dental health and potentially harmful behaviours are also issues that require a clear strategic response.

Analysis of indicators relevant to **health and function** emphasises the high levels of ill-health and disability in Glasgow and the West of Scotland. For example, one in four of the population of Greater Glasgow suffers from a long-term limiting illness. This clearly has a major impact on the area’s economy: just under one fifth of the working age population of Greater Glasgow are classified as unable to work due to illness or disability. The relationships between health and employment are increasingly being recognised: health improvement will be an important cornerstone for future economic development.

Finally, an analysis of some specific aspects of **illness and disease** highlights further areas of concern: for example, upward trends in diabetes and suicide; levels of deliberate self-harm; the impact of alcohol on premature mortality. Better news is evident in the decrease in road accident casualties and falling rates of deaths from heart disease and stroke – although the latter is tempered by the fact that in Greater Glasgow the rates of decrease in both have not matched those of the rest of the country, resulting in an emergent gap between Glasgow and elsewhere.

Overall, what does this report tell us?

The data presented in this report confirm that Glasgow has undergone significant change over the last 20-30 years. As recently as the 1970s Glasgow was an industrial and manufacturing city. The economic depression of that period destroyed many of these jobs and it has taken time for the city's economy to recover. The social class and employment profiles of the city's population have changed significantly since then. Economic regeneration has been accompanied by physical regeneration, at least for many parts of the city. Glasgow is now a predominantly 'middle class' city with a strong emphasis on service industries and consumerism. While all this has been happening, improvements have been seen in overall life expectancy and in falling death rates from major diseases like heart disease and cancer. This transformation has not happened by accident. Much of it reflects the successful policy initiatives implemented by the city's leaders over these decades.

Yet, despite this progress many intractable problems remain and some new problems have arisen. Chief amongst these are:

1. marked inequalities between the most advantaged and least advantaged areas;
2. high levels of worklessness caused in no small measure by high levels of invalidity;
3. rising epidemics of obesity, alcohol related harm, health problems related to drug addiction, some mental health problems and sexually transmitted infections.

This is the central paradox. Glasgow is a city that has undergone profound change and considerable regeneration – but commensurate improvements in its health have not yet followed. And although these health problems are not unique to Glasgow, this report has shown that they are particularly profound and seemingly resistant to change in this part of the country, especially in less affluent communities.

There will be no simple solutions to the problems faced by Glasgow. Certainly, there will be no single initiative that will turn round such a complex set of problems with such deep roots in history. One of the key messages of this report is that for health to improve a large number of the determinants of health will have to be changed. Our response to Glasgow's health problems needs to take account of all the data in this report and the many insights yielded. The response will have to come from individuals, organisations, communities and government. It will require a willingness to learn from past approaches, to reflect honestly on the implications of current trends, and to be open to different ways forward. An initial discussion of the range of possible approaches to addressing the issues highlighted in this report is being prepared as an accompanying discussion document to be published by the Glasgow Centre for Population Health.

In moving from analysis to action, the next challenge is to engage as wide a constituency as possible in debating this report and in using these data to inform their work and their lives. If you would like to contribute to this process please visit www.gcph.co.uk/involved.htm. In addition comments may be submitted by email to gcphmail@drs.glasgow.gov.uk or by post to the Glasgow Centre for Population Health, Level 6, 39 St Vincent Place, Glasgow G1 2ER.

Appendix 1: Definitions and sources



Appendix 1: Definitions and sources

This Table includes definitions, notes and sources for each Table and Figure presented in the report. With some exceptions, the Table does not include details of time period, or geography at which the data is presented as these are displayed in each chart's title.

In some cases 'source' indicates the source of original raw data sets, which were then manipulated by NHS Health Scotland to provide required measures (e.g. standardised rates).

Figure No.	Description/Notes	Source
2.1	Glasgow's population, 1801-2004. It is worth noting that the boundaries of Glasgow were extended on numerous occasions over the period covered. From 1996 onward, the population figures are for Glasgow City Council.	Reports of Medical Officer of Health, Glasgow (1898, 1925,1926,1972); Registrar General of Scotland's Annual Reports (1973-2004)
2.2	Births and births per 1,000 population in Glasgow; 1855-2004.	“ ”
2.3	Deaths and deaths per 1,000 population in Glasgow; 1855-2004.	“ ”
2.4	Infant deaths (under one year) per 1,000 live births in Glasgow; 1855-2004.	“ ”
Table 2.1	Infant mortality and mortality from all causes for Glasgow and four other UK cities, 1901.	Report of Medical Officer of Health, Glasgow (1901)
2.5	Death and birth rates per 1,000 population in Glasgow; 1855-2004.	Reports of Medical Officer of Health, Glasgow (1898, 1925,1926,1972); Registrar General of Scotland's Annual Reports (1973-2004)
2.6	Population density in Glasgow's Sanitary Districts, 1901.	Report of Medical Officer of Health, Glasgow (1901)
2.7	Birth rates in Glasgow's Sanitary Districts, 1901.	“ ”
2.8	Infant death rates in Glasgow's Sanitary Districts, 1901.	“ ”
2.9	Death rates in Glasgow's Sanitary Districts, 1901.	“ ”
2.10	Expected future years of life at ten by size of house and by gender for Glasgow. Calculated on the basis of 1911 Census and deaths between Oct 1909 and Sept 1912.	Report of the Medical Officer of Health, Glasgow, 1925 (p34)
2.11	Overcrowding in Glasgow in 1921 - percentage of occupants living more than three per room of all occupants by size of house.	Report of the Medical Officer of Health, Glasgow, 1925 (p190); original source 1921 Census
2.12	Expected future years of life at birth by gender for Glasgow; 1821-27 to 2001-03.	Report of the Medical Officer of Health, Glasgow, 1925; Office for National Statistics, 2004
3.1 – 3.3	Population density (persons per sq. km), male population age structure and female population age structure for West of Scotland council areas. Age categories shown are: 'Under 16': 0-15; 'working age': 16-64 years for men and 16-59 years for women; 'pensionable age': 65 years and older for men and 60 years and older for women.	General Register Office for Scotland (GRO(S))
3.4 – 3.5	Population under 16 years. Includes those resident in communal establishments and asylum seekers.	NHSHS Community Profiles (from 2001 Census data)

Figure No.	Description/Notes	Source
3.6 – 3.7	Population 16-64 years. Includes those resident in communal establishments and asylum seekers.	“ ”
3.8 – 3.9	Population 65 years and over. Includes those resident in communal establishments and asylum seekers.	“ ”
3.10- 3.12	Population dependency ratios. Definition applied: 100 x (‘Population under 16 years’ + ‘Population of 65 years or more’) / ‘Population aged 16-64’.	GRO(S); NHSHS Community Profiles (from 2001 Census data)
<i>Table 3.1</i>	Components of population change (births, deaths, natural change and migration), 1994-2004.	GRO(S)
3.13 – 3.15	2004 based population projections for period 2004-2024.	“ ”
3.16	Projection of dependency ratios for period 2004-2024. Dependency ratios definition (as above). Projections based on 2004 population projections.	“ ”
3.17- 3.20	2002 based household projections for period 2002-2016. Projected trends in overall households and mix of households (one adult; two or more adults; two or more adults and one or more children; one adult with children).	“ ”
3.21 – 3.22	Ethnic Minority: percentage of population from a minority ethnic group - includes Black Caribbean, Black African, Black Other, Indian, Pakistani, Bangladeshi, Chinese, Asian Other, “other” minority ethnic groups.	NHSHS Community Profiles (from 2001 Census data)
3.23 – 3.24	Births: birth rates per 100 females aged 15-44 years.	“ ”
3.25	Infant deaths: deaths within the first year of life shown as number (totalled over five-year period) and rate per 1,000 live births in the period. Data at community level exclude deaths that had been assigned the postcode of a hospital.	“ ”
3.26 – 3.27	Deaths: average annual all-cause deaths expressed as number and directly age-standardised rate per 100,000 population. Deaths at all ages included. Excludes non-Scottish residents. Standardisation carried out using WHO standard world population.	“ ”
3.28 – 3.29	Deaths: age-standardised rates among men and women aged 15-74 years. Standardisation carried out using European standard world population. Definitions (including ICD codes) and methodology match those specified in: Leon, D. Scotland’s health in an international context. Public Health Institute of Scotland, 2003 (http://www.phis.org.uk/projects/network.asp?p=ff).	GRO(S)
3.30	Deaths: average annual all-cause deaths expressed as number and directly age-standardised rate per 100,000 population. Deaths at all ages included. Excludes non-Scottish residents. Standardisation carried out using WHO standard world population.	NHSHS Community Profiles (from 2001 Census data)
3.31 – 3.34	Male and female life expectancy at birth in years.	Office for National Statistics (ONS)
3.35 – 3.36	Male life expectancy at birth in years. Calculated applying Chiang (II) methodology as devised at ONS 2003 (http://www.statistics.gov.uk/statbase/Product.asp?vlnk=10622), using GRO death registrations for 1998-2002 [excluding non-Scottish residents] and 2001 census populations [including those persons living in communal establishments].	NHSHS Community Profiles (from 2001 Census data)
3.37	Proportion of 15 year olds boys surviving to 65 of age. Derived from the life table used for life expectancy calculation (see notes for ‘Life expectancy’ above).	“ ”
3.38 – 3.39	Female life expectancy at birth in years. Calculated applying Chiang (II) methodology as devised at ONS 2003 (http://www.statistics.gov.uk/statbase/Product.asp?vlnk=10622), using GRO death registrations for 1998-2002 [excluding non-Scottish residents] and 2001 census populations [including those persons living in communal establishments].	“ ”

Figure No.	Description/Notes	Source
3.40	Proportion of 15 year olds girls surviving to 65 years of age. Derived from the life table used for life expectancy calculation (see notes for 'Life expectancy' above).	“ ”
3.41 – 3.42	Estimates of male and female life expectancy at birth by deprivation: least and most deprived Carstairs quintiles compared between 1981/85 - 1998/2002 (areas fixed to their deprivation quintile in 1981).	GRO(S); Census (1981, 1991, 2001)
3.43 – 3.44	Estimated healthy life expectancy at birth (for males and females) and years of life with a limiting long-term illness. See ISD web-site (Healthy life expectancy in Scotland: http://www.isdscotland.org/isd/info3.jsp?pContentID=2860&p_applic=CCC&p_) for details of methodology.	ISD (from Census and GROS data)
4.1	Employees by industry. All figures rounded to nearest 100. ABI excludes self-employed, the armed forces and diplomatic and domestic services. Employees assigned to area in which business is based. Further information on ABI data available from NOMIS website: http://www.nomisweb.co.uk .	NHSHS Constituency Profiles (from ABI data)
<i>Table 4.1</i>	Employment in Glasgow by occupation.	SLIMS/RF
4.2	Unemployment 'Claimant count': expressed as a percentage of the working age population.	NOMIS
4.3 – 4.4	Unemployment 'Claimant count': an annual average expressed as a percentage of the working age population.	NHSHS Community Profiles (from NOMIS data)
4.5 – 4.6	Economically inactive: as a percentage of people aged 16-74. Includes: Retired, Student (excludes those students who were working or in some other way were economically active), Looking after family/ home, Permanently sick/ disabled and Other. A person who is looking for work but is not available to start work within two weeks is counted as Economically Inactive.	NHSHS Community Profiles (from Census data)
4.7	Economically inactive: as a percentage of working age people (i.e. males 16-64 years and females 16-59 years).	Annual Scottish Labour Force Survey
4.8 – 4.9	Employment deprivation: percentage of working age population who are employment deprived. Defined as the percentage of the working age population (16-64 for men and 16-59 for women) who are on the unemployment claimant count, are in receipt of Incapacity Benefit or Severe Disablement Allowance or are Compulsory New Deal participants (New Deal for the under 25s and New Deal for the 25+ not included in the unemployment claimant count). The benefits data are provided by the Department for Work and Pensions and the claimant count data are supplied by ONS. For more details please refer to the Scottish Index of Multiple Deprivation (SIMD): http://www.scotland.gov.uk/stats/simd2004/ .	Scottish Neighbourhood Statistics (SNS) (from SIMD)
4.10 – 4.11	Gross Weekly Pay: mean gross weekly pay for all employees. Figure 4.10 shows pay estimates by employees' place of residence, while the pay comparison estimates in Figure 4.11 are based on pay by employees' place of work. The Annual Survey of Hours and Earnings (ASHE) is a new survey developed to replace the New Earnings Survey (NES) from 2004. ONS have suggested that, although small discontinuities in trends may occur because of the change over between the surveys, overall trends are relatively robust. More information available from Annual Survey of Hours and Earnings (ASHE): http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=13101&Pos=4&ColRank=1&Rank=160 .	ONS (from Annual Survey of Hours and Earnings)

Figure No.	Description/Notes	Source
4.12 – 4.13	Average annual gross household income (£). Household income estimates provided to Communities Scotland taken from CACI PayCheck, a commercial dataset to which Communities Scotland subscribe. This is a point-based dataset that uses postcodes as the basis for estimating household incomes. This dataset is derived from a household income model, and provides an estimate of income for every postcode in the UK. PayCheck models gross income before tax and is intended to cover income from every source including income support and welfare. PayCheck is a result of a modelling process that uses lifestyle data (as the main input), 1991 Census data, CACI population estimates, ACORN, and market research data. Lifestyle data is based upon many sources, including questionnaires returned with guarantee cards for electrical goods and direct mailings. Data are collected about the individuals returning the form, about their households, as well as details about purchasing habits, attitudes and behaviour. A high proportion of these records contain a figure for annual household income, which provides the baseline for PayCheck.	Communities Scotland (from CACI)
4.14 – 4.15	Income support claimants. Income Support is a non-contributory, means tested benefit. To be eligible to claim IS, claimants must satisfy several basic conditions of entitlement. They must be age 16 or over and be resident in Great Britain but in some cases, they may be eligible for IS during a temporary stay abroad if: the absence is unlikely to last more than 12 months they were entitled to IS immediately before leaving GB they continue to satisfy the conditions of entitlement while they are abroad, and not be doing paid work of on average 16 hours a week or more, or have a partner who is doing paid work of on average 24 hours a week or more (but there are exceptions to this rule). For more details contact DWP.	NHSHS Community Profiles (from Department for Work and Pensions (DWP) data)
4.16 – 4.17	Income Deprivation: percentage of population who are income deprived. Defined as adults and children living in households in receipt of Income Support, Income Based Job Seekers Allowance, Working Families Tax Credit below a low income threshold or Disability Tax Credit below a low income threshold and is derived from data provided by the Department for Work and Pensions and the Inland Revenue. For more details please refer to the Scottish Index of Multiple Deprivation (SIMD): http://www.scotland.gov.uk/stats/simd2004/ .	Scottish Neighbourhood Statistics (SNS) (from SIMD)
4.18 – 4.19	Eligibility for free school meals: primary school pupils entitled to free school meals as a percentage of all pupils. Data presented at small area level (Figure 4.19) are school-based data, with the postcode sector of the primary school assigned a descriptive name from the list used in the community profiles (see Appendix 2 for full list).	SE Education Department
4.20 – 4.22	Annual average house sale prices. Derived from a point based SASINE dataset of all housing transactions in Scotland. SASINE information is supplied by both the General Register Office for Scotland and the Land Valuation Information Unit at Paisley University. The database contains information concerning house-sales in Scotland. Communities Scotland have cleaned and geo-referenced the data for GIS use.	Communities Scotland (from SASINE data); Scottish Neighbourhood Statistics
4.23 – 4.24	Households without access to a car: percentage of all households who do not have access to a car or van.	NHSHS Community Profiles (from Census data)
4.25	Persons without access to a car: percentage of all persons in private households who do not have access to a car or van.	ISD (from Census data)

Figure No.	Description/Notes	Source
4.26 – 4.29	Social grade: AB - higher and intermediate, managerial/ administrative /professional; Social grade: E - on state benefit, unemployed, lowest grade workers. Social Grade is the socio-economic classification used by the Market Research and Marketing Industries. Although it is not possible to allocate Social Grade precisely from information collected in the Census, the Market Research Society has developed a method for using Census information to provide a good approximation of Social Grade. Most output by Social Grade will be for people aged 16 and over in households. They will be classified by the Social Grade of their Household Reference Person (HRP). For households where the HRP is aged less than 16 or over 74 the Social Grade of people in the household will be determined by the household tenure.	NHSHS Community Profiles (from Census data)
Table 4.2	Social Class I and II: percentage of population from Social Class I (Professional occupations) or II (Intermediate - most managerial and senior administrative occupations).	J Arnott (from Census data)
5.1	Primary and secondary school pupils. All pupil figures quoted relate to pupils in publicly funded schools in Scotland. Pupil figures by council relate to pupils in schools within each council area rather than pupils' council of residence.	Scottish Executive, Pupils in Scotland 2004
5.2	School pupils from ethnic minority groups: percentage. All pupil figures quoted relate to pupils in publicly funded schools in Scotland. Pupil figures by council relate to pupils in schools within each council area rather than pupils' council of residence.	Scottish Executive, Pupils in Scotland 2004
5.3	Educational Qualifications – adults of working age with three or more 'Highers'; a degree; no qualifications.	Scottish Neighbourhood Statistics
5.4 -5.5	Adults with no qualifications: % of people aged 16-74 with no qualifications.	NHSHS Community Profiles (from Census data)
5.6	Participation in Higher Education: % of young (under 21) first-time entrants to full-time first degree courses from state schools or colleges.	HESA, Performance Indicators, 2003/03
5.7	Participation in Higher Education: % of young (under 21) first-time entrants to full-time first degree courses from 'low participation' neighbourhoods. Low-participation neighbourhoods are defined as areas for which the participation rate is less than two-thirds of the UK average rate.	HESA, Performance Indicators, 2003/03
5.8 – 5.10	Participation in Higher Education: estimated new student participation rates in Higher Education. Calculated as young (under 21) first-time entrants to full-time first degree courses divided by 17 year olds in the population in 2001 (from the Census). This is acknowledged to be a relatively imprecise estimate, given that the denominator (numbers of 17 year olds) is not precisely matched with the numerator in terms of time period or age range.	Derived from HESA & Census data
5.11- 5.12	Lone parent households: calculated as lone parent households with dependent children taken as a percentage of all households with dependent children.	Census
5.13- 5.14	Lone pensioner households: as a percentage of all households.	NHSHS Community Profiles (from Census data)
5.15- 5.24	Social Capital: various indicators of social capital measuring <i>civic engagement, reciprocity, trust, social networks, isolation, volunteering and perception of local area</i> derived from NHS Greater Glasgow's Health & Well-being Survey, 1999 & 2002.	NHS Greater Glasgow's Health and Well-being Survey, 1999 & 2002
5.25	Voter turnout: % turnout at 2003 Scottish Parliamentary Election.	NHSHS Constituency Profiles (from Electoral Commission data)

Figure No.	Description/Notes	Source
5.26	Voter turnout and perception of the importance of voting.	SNS (from Scottish Household Survey & Electoral Commission)
5.27	Voter turnout: percentage turnout. Constituency boundaries changed several times over the period analysed, so trends for Glasgow are approximate.	Parliamentary Research Services; BBC website; Political Guide to Modern Scotland
<i>Table 5.1-5.2</i>	Recorded crime levels for a range of crime types including non-sexual crimes of violence, crimes of indecency, crimes of dishonesty, 'fire raising, vandalism, etc', serious assaults, crimes involving offensive weapons and domestic housebreaking, vandalism. Original source: Recorded Crime in Scotland, 2004/05 (http://www.scotland.gov.uk/Publications/2005/10/19155942/59484).	Scottish Executive
5.28	Index of overall crime rate. Original source: Recorded Crime in Scotland, 2004/05 (http://www.scotland.gov.uk/Publications/2005/10/1955942/59484).	Scottish Executive
5.29 – 5.32	Trends in crime: crimes include serious violent crime, domestic housebreaking, 'fire raising, vandalism, etc' and drug related crime.	SNS
5.33 – 5.36	Crime patterns within Glasgow The data used in this analysis were provided from the Strathclyde Police Corporate Database for the fiscal year 2004/05 and only cover the Glasgow City area. The crime types included were disorder, vandalism, vehicle crime and housebreaking.	Strathclyde Police
5.37 – 5.43	<i>Violent crime</i> patterns within Glasgow: distribution of offenders and victims by age, sex and small area shown; violent incidents by small area also. Data supplied by Strathclyde Police's Violence Reduction Unit on the location (by data zone) of incidents of violent crime and the (data zone of) residence of victims and perpetrators of violent crime covering a three-year period from July 2002-June 2005 for Glasgow City. Offences that are classified as 'violent offences' include: murder, attempted murder, serious assault, simple assault and possession of an offensive weapon.	Strathclyde Police
5.44	Incidents of domestic abuse: recorded incidents per 100,000 Original source: Domestic Abuse Recorded by the Police in Scotland, 1 January - 31 December 2004 (http://www.scotland.gov.uk/Publications/2005/09/16120959/10005).	Scottish Executive
5.45-5.46	Hospital discharges after an <i>assault</i> : expressed as a rate per 1,000 population. Assault defined by the ICD10 codes (X85-X99, Y00-Y09) in any position GRO(S) population estimates used for denominator.	ISD Scotland
5.47	Main assault diagnoses on hospital discharge records: four main assault diagnoses as a percentage of all assault discharges. Assault defined by the ICD10 codes (X85-X99, Y00-Y09) in any position. Only the first assault diagnosis code on each record was counted.	ISD Scotland
5.48	Frequency of assault discharges per person. Assault defined by the ICD10 codes (X85-X99, Y00-Y09) in any position. NB Some multiple admissions may be readmissions for treatment of injuries caused in one rather than many assault incidents.	ISD Scotland
5.49	Hospital discharges after an assault: expressed as a rate per 1,000 population Assault defined by the ICD10 codes (X85-X99, Y00-Y09) in any position 2001 Census population used for denominator.	ISD Scotland
5.50	Imprisonment: numbers of prisoners per 100,000 on 30 th June 2003 Original source: Social Exclusion and Imprisonment in Scotland: A report (http://www.sps.gov.uk/Uploads/C1D3FBFB-E123-4643-8D83-AB0F622E7755.pdf).	Social Exclusion and Imprisonment in Scotland

Figure No.	Description/Notes	Source
5.51	Prisoners from type H housing: % imprisoned coming from type H housing on 30th June 2003. ACORN is a housing classification produced by the market research company, CACI. The type H housing classification includes housing areas characterised by high unemployment, overcrowding, council ownership, high proportion of lone parents and poorer families. Original source: Social Exclusion and Imprisonment in Scotland: A report (http://www.sps.gov.uk/Uploads/C1D3FBFB-E123-4643-8D83-AB0F622E7755.pdf).	Social Exclusion and Imprisonment in Scotland
5.52	Fear of crime: responses to a Scottish Household Survey question on whether respondents felt safe walking in their neighbourhood alone after dark.	Scottish Household Survey
5.53-5.54	Homelessness: homeless applications expressed as a rate per 100,000 adults Original source: Operation of the Homeless Persons Legislation in Scotland: National and Local Authority Analyses 2003-04 (http://www.scotland.gov.uk/stats/bulletins/00363-00.asp).	Scottish Executive
6.1 – 6.3	House condition: estimates of numbers and proportions of properties (a) classed as ‘below tolerable standard’; (b) with any urgent disrepair; (c) with rising/penetrating damp; (d) with mould in any room. Full details of all definitions are included within the report of the 2002 Scottish House Condition Survey available from Communities Scotland.	Scottish House Condition Survey (SHCS); Newhaven Research (for additional analysis of the SHCS data for GHA properties)
6.4	Overcrowding: percentage of population living in overcrowded households. The definition of overcrowding relates the actual number of rooms in a property to the number of rooms 'required' by the members of the household (based on the relationships between them and their ages). Note that to show a comparable trend between 1981, and 1991-2001 a correction factor was applied to the 1981 figure. Further details available on request.	1981, 1991 and 2001 Censuses
6.5 – 6.6	Overcrowding: percentages of all households termed overcrowded. See definition of overcrowding above.	NHSHS Community Profiles (from 2001 Census data)
6.7 – 6.8	Owner-occupancy: percentage of all properties that are owned. This includes accommodation that is either owned outright, owned with a mortgage or loan, or shared ownership (paying part rent and part mortgage).	NHSHS Community Profiles (from 2001 Census data)
6.9 – 6.10	Vacant dwellings: percentage of all household spaces which are unoccupied.	NHSHS Community Profiles (from 2001 Census data)
6.11	Cleanliness: % of all sites graded A (no litter or refuse), B (predominantly free of litter and refuse – apart from small items), C (widespread distribution of litter and refuse with minor accumulations) and D (heavily littered with significant accumulations). These are the four levels of cleanliness graded within the Keep Scotland Beautiful recording system. The system grades areas of study (transects) within each council according to the Code of Practice on Litter and Refuse (1999), which relates to Part IV of the Environmental Protection Act 1990 (EPA). The number of sites inspected in each council area varies slightly each year. It is a 2% random sample of streets but the actual number of sites varies slightly depending on length of street selected - the longer the street the more sites inspected. The results are collated annually. Under the grading system in use, sites graded ‘C’ or ‘D’ are unacceptable and must be cleaned. Grade A is the standard that a thorough conventional sweeping/litter-picking should achieve.	Keep Scotland Beautiful

Figure No.	Description/Notes	Source
6.12	Cleanliness index: this is derived from the cleanliness data above, and is calculated thus: points, or weightings, are awarded as follows to each cleanliness grade: A=3; B=2; C=3; D=0. These 'weightings are multiplied by the count of sites in each grade and summed to create an actual score and then divided by the maximum possible score (total count of sites surveyed multiplied by three). The resulting ratio is multiplied by a 100 to give a Cleanliness Index between 0 and 100.	Keep Scotland Beautiful
6.13 – 6.14	Different sources of litter; adverse environmental quality indicators. These data are also made available by the Keep Scotland Beautiful data system outlined above. Further details are available from the Keep Scotland Beautiful LEAMS Benchmarking report referenced in Chapter 6: Physical environment.	Keep Scotland Beautiful
6.15	Perceived problems in local area: % of respondents perceiving the following to be common or very common: young people hanging around, drug activity, excessive drinking, vandalism/graffiti, unemployment, car crime, burglaries, assaults/muggings, domestic violence, bullying in schools.	NHS Greater Glasgow Health and Well-being Survey 2002
6.16	Perception of environmental problems: % of respondents perceiving the following to be common or very common: dog dirt, traffic, rubbish lying about, noise & disturbance, air pollution, contaminated drinking water, vacant/derelict buildings, abandoned cars, poor street lighting.	NHS Greater Glasgow Health and Well-being Survey 2002
6.17	Noise complaints: total number of noise complaints per 10,000 population. Data collected by Environmental Health departments within councils, passed onto Health Protection Scotland. It should be noted, however, that these figures may be misleading in a number of ways. First, an individual could have complained on many occasions (thus inflating the population rate). Second, the system only records complaints made to an Environmental Health department (thus underestimating the real scale of noise problems in a council area). Furthermore, the numbers are clearly dependent on how likely people are to make a complaint in each area. Finally it is more important to note that noise complaints can be subdivided by type (e.g. domestic, industrial, etc.) but this level of detail is not reported here, given these concerns regarding the reliability of the data.	Health Protection Scotland (from council environmental health departments).
6.18	Estimated traffic volume in all roads in Scotland by council area. Further details on calculation, methodology, etc. are available from the Scottish Executive's Scottish Transport Statistics 2004 publication.	Scottish Transport Statistics 2004 (Scottish Executive)
6.19	Projected traffic growth. Background traffic growth by local authority for all traffic originating in that local authority. Full details of methodology used, etc. is available from the relevant part of the Scottish Executive website (http://www.scotland.gov.uk/library3/transport/rfts-05.asp).	Scottish Executive (Review of Local Transport Strategies and RTRA Reports Final Report (October 2001))
6.20	Air pollution: mean NO ₂ readings. Data collected by Environmental Health departments within councils, passed onto Health Protection Scotland. However, there are a number of caveats about the data presented: the number and location (kerbside/roadside; intermediate; background) of recording sites varies substantially between councils. There are also differences in measurement recording relating to the laboratory used, which normally should be corrected for - bias correction. The figures presented have not been bias corrected. The means provided are an average of all results and do not differentiate between roadside or background monitors.	Health Protection Scotland (from council environmental health departments).

Figure No.	Description/Notes	Source
6.21 – 6.26	<p>Access to leisure services in Glasgow for non-car users. Geographical Information System (GIS) based analysis of access to local authority (Glasgow City Council) owned leisure facilities in terms of: walking (based around SE commissioned, and published, research stipulating maximum ‘acceptable’ walking distances for reaching services to be 1600m (distances of 400m-800m are deemed as acceptable short to normal walking distances)); cycling (relating to the similarly deemed acceptable cycling distances of 5km (maximum), and 1km and 2km (acceptable short to normal distances)); public transport (% minutes walking time to a bus stop); car ownership.</p> <p>Analysis carried out for MSc dissertation. Further details of analysis is available on request.</p>	Fiona Marrison, MSc in Geographical Information Systems, University of Edinburgh Institute of Geosciences, 2004
6.27 – 6.28	<p>Access to services: percentage of households within five minutes drive time of a dentist; and within five minutes drive-time of a secondary school. This analysis of access to services was developed for the report, Availability of Rural Services, published by the Scottish Executive in October 2002. Further information is available from: http://www.scotland.gov.uk/library5/rural/asrs-25.asp.</p>	NHSHS Community Profiles (from SNS data); SNS
6.29 – 6.30	<p>Areas of, and proximity to, derelict land. Derelict land (and buildings) is defined as that ‘which has been so damaged by development or use that it is incapable of being developed for beneficial use without rehabilitation, and which is not being used for either the purpose for which it is held, or for a use acceptable in a local plan’. Exceptions, caveats, and full definitions are available from the ‘area data guide’ of the Scottish Neighbourhood Statistics website (http://www.sns.gov.uk).</p>	SNS (from Scottish Vacant and Derelict Land Survey)
6.31	<p>Areas of Urban Vacant Land. Urban Vacant Land (and buildings) is defined as ‘land located in urban settlements (defined here as GRO(S) settlements with a population of 2,000 or more) or within one kilometre of the edge of such settlements which is considered to display the characteristics of urban vacant land; that is, land which is unused or unsightly, or which would benefit from development or improvement’. Exceptions, caveats, and full definitions are available from the ‘area data guide’ of the Scottish Neighbourhood Statistics website (http://www.sns.gov.uk).</p>	SNS (from Scottish Vacant and Derelict Land Survey)
6.32	<p>Proximity to landfill sites: % of population living within 2km of a landfill site. Based on information supplied to SNS by SEPA on the location of licensed landfill sites. Full details of methodology employed are available from the ‘area data guide’ of the Scottish Neighbourhood Statistics website (http://www.sns.gov.uk).</p>	SNS (from SEPA data)
6.33	<p>Proximity to EPER sites (sites on the European Pollutant Emissions Register): % of population living within 2km of a EPER site. Based on information supplied to SNS by SEPA on location of such sites. Full details of methodology employed are available from the ‘area data guide’ of the Scottish Neighbourhood Statistics website (http://www.sns.gov.uk).</p>	SNS (from SEPA data)
6.34	<p>‘Greenspace’ map, categorising land usage across Glasgow. The categorisation includes the following broad groupings (and sub groups of): roads, water courses, railways, paths, buildings, open space (e.g. public parks and gardens, amenity greenspace, sports areas, woodland, other functional greenspace, etc.) and other open space (e.g. farmland, moor land). This is produced using GIS software. The ‘open space’ categories are based on a modified version of the Scottish Executive’s PAN65 open space typology - further details are available from Planning Advice Note: PAN 65 Planning and Open Space (http://www.scotland.gov.uk/library5/planning/pan65-00.asp). Scottish Executive, January 2003.</p>	Forestry Commission Scotland; Glasgow and Clyde Valley Structure Plan Joint Committee; Scottish Natural Heritage

Figure No.	Description/Notes	Source
7.1	Alcohol consumption: percentage of adults (aged 16-64) exceeding weekly recommended units of alcohol. Recommended units: 21 units per week for males, 14 units per week for females.	Scottish Health Survey
7.2	Estimated prevalence of 'problem alcohol use': % of population aged 15-64 estimated to be 'problem alcohol users'. Data taken from a report by University of Glasgow Centre for Drug Misuse Research for Glasgow City Council Addiction Services (see references section of Chapter 7: Behaviour). Figures were derived from two sources: Glasgow City Council social enquiry reports and data from a national drugs misuse prevalence report (produced by the same authors): the former allowed calculation of the ratio of problem drug users to problem alcohol users, which was then applied to the latter. Please note, therefore, these are statistically modelled estimates and, given the lack of any accurate data on prevalence of problem alcohol use in Glasgow (as acknowledged by the authors of the report) it is extremely difficult to gauge the accuracy of these findings.	University of Glasgow Centre for Drugs Misuse Research
7.3 – 7.4	Drunk-driving offences: total number, and rate per 1,000 population aged 17+. Population data taken from GRO(S).	Scottish Executive Justice Department
7.5 – 7.7	Alcohol attributable and related hospitalisations: average annual acute hospital inpatient stays in the period for directly alcohol related and alcohol attributable conditions expressed as a directly age-standardised rate per 100,000 population. Admissions for all ages included. Diagnostic codes included within alcohol-related category were defined by ISD and are available on request or from ISD Scotland (see www.alcoholinformation.isdscotland.org). List of conditions (and weights) included within the broader alcohol-attributable category is available on request. Relevant conditions were sought in all primary and secondary admission diagnosis positions. Standardisation carried out using WHO standard world population.	NHS Community Profiles (from ISD Scotland SMR1 and SMR4 data)
7.8	Alcohol related deaths. Total deaths, based on selection of ICD9/ICD10 codes used by ISD Scotland – see www.alcoholinformation.isdscotland.org for more details. Note this definition differs from that used historically by GRO(S) in two ways: first, it is slightly more comprehensive in terms of the number of ICD codes used, and second, it includes not only principal (or 'underlying') alcohol related causes of death, but also secondary (or 'contributing') causes as well. Note also, however, that despite this slightly more comprehensive definition, the results will unquestionably still underestimate the true number of alcohol related deaths, given (a) its reliance on the accuracy of cause of death recording by practitioners and (b) the fact that this definition excludes conditions such as alcohol attributable cancers. Note also that secondary causes of death have been limited to three in number: from 1996, up to nine secondary causes can be recorded on the GRO death record. At a national level, limiting the number of secondary causes to three results in a 2% reduction in total numbers compared with published ISD figures.	GRO(S)
7.9	Liver cirrhosis mortality: age-standardised rates among men aged 15-74 years. Data for Scotland and Greater Glasgow presented in the context of maximum, minimum, and mean rates for 16 Western European countries (Austria, Denmark, Finland, France, Germany, Ireland, Italy, N. Ireland, Netherlands, Norway, Portugal, Scotland, Spain, Sweden, Switzerland, England & Wales). Standardisation carried out using European standard world population. Definitions (including ICD codes) and methodology match those specified in: Leon, D. Scotland's health in an international context. Public Health Institute of Scotland, 2003 (http://www.phis.org.uk/projects/network.asp?p=ff).	WHOSIS

Figure No.	Description/Notes	Source
7.10 – 7.12	Drugs misuse: number, location and proportion (% of population aged 15-54) of problem drug users (individuals misusing opiates or benzodiazepines). Figures are statistically modelled estimates. Full details of methodology, definitions etc. are available from the report by Glasgow University Centre for Drugs Misuse Research and the Scottish Centre for Infection & Environmental Health – see references section of Chapter 7: Behaviour.	University of Glasgow Centre for Drugs Misuse Research; SCIEH (now renamed Health Protection Scotland)
7.13	Drugs misuse: proportion (% of population aged 15-54) of problem drug users (individuals misusing opiates or benzodiazepines) by LHCC area. Data taken from same report from which data in Figure 7.2 (see above) was taken. Figures are statistically modelled estimates and should be interpreted with caution. The report authors note that the prevalence estimate for Glasgow is “more reliable and robust than the estimates for the smaller LHCC areas”. It should also be noted that the estimates at LHCC level were based on aggregations of data at the postcode district level (e.g. G31) - thus the definition of an LHCC area may differ considerably from recognised LHCC boundaries.	University of Glasgow Centre for Drugs Misuse Research; SCIEH (now renamed Health Protection Scotland)
7.14	Drug related deaths: total number of drug related deaths over a five year period. The precise definition used in determining drug related deaths is complex, combining information on causes – and underlying causes – of death in terms of ICD codes, with other, specific information on the type of drug known to be present in the body at the time of death. Further information is available on the GRO(S) website (http://www.gro-scotland.gov.uk).	NHS Community Profiles (from GRO(S) data)
7.15	Drug related deaths: total number of drug related deaths per year. See notes above (7.14) for more detail.	GRO(S)
7.16	Percentage of adults (16+) who smoke.	Scottish Household Survey
7.17 – 7.18	Estimated smokers: estimated percentages of current smokers (aged 16-74). NHS commissioned Professor Graham Moon and colleagues at the University of Portsmouth to develop estimates of smoking prevalence across Scotland. Estimates of smoking prevalence were created using multi-level modelling techniques applied to data from the Scottish Health Survey (1995, 1998) and the 2001 census. Further details of the method used are available on request.	NHS Community Profiles (from data from Portsmouth University)
7.19 – 7.20	Smoking attributable deaths: average annual deaths due to smoking related causes (aged 35 and over) expressed as a crude rate per 100,000 population. Created using a formula (Callum, C. (1998). The UK Smoking Epidemic: Deaths in 1995, Health Education Authority: London.) that links smoking status (current smokers and ex-smokers, obtained from the smoking estimates calculation described above) with attributable risks for specific causes of death known to be linked to smoking. These estimated proportions were themselves then applied to data on seven years’ (1995-2001) of actual deaths from the selected attributable causes. Further details of the method used are available on request.	NHS Community Profiles (from data from Portsmouth University)
7.21	% of overweight & obese adults (aged 16+). Based on calculation of Body Mass Index (BMI) (weight (in kg) divided by height (in metres) squared), with ‘overweight’ classed as BMI greater than 25, and obese classed as BMI greater than 30.	Scottish Health Survey
7.22	% of obese adults (16-64). See note above for definition of obese.	Scottish Health Survey
7.23 – 7.25	Diet: % of respondents who on average eat no portions of fruit per day; % of respondents who on average eat no portions of vegetables (excl. potatoes) or salad per day; % of respondents who on average eat five or more portions of fruit and vegetables each day.	NHS Greater Glasgow Health and Well-being Survey 2002

Figure No.	Description/Notes	Source
7.26 – 7.27	Oral health: % of respondents who had not been to the dentist in over 15 months; % of respondents who brush their teeth less than twice a day.	NHS Greater Glasgow Health and Well-being Survey 2002
7.28	Acute sexually transmitted infections (STIs): all acute STI diagnoses per 100,000 population aged 15-64. Acute STIs include the following: infectious syphilis, gonorrhoea, chlamydia, genital herpes (first episode only), genital warts (first episode only), non-specific genital infections (non-chlamydial), trichomoniasis, HIV infection (newly diagnosed only), “other acute STI”. They do not include: other acquired syphilis, congenital syphilis, genital herpes recurrence, genital warts recurrence/reregistered. Note that these figures may be influenced by proximity to genito-urinary medicine services, and higher levels of screening particular areas.	ISD Scotland
7.29 – 7.30	Exercise: survey respondents taking at least 20 minutes of vigorous exercise 3 or more times per week; survey respondents taking at least 20 minutes of vigorous exercise three or more times per week or 30 minutes moderate exercise five or more times per week	NHS Greater Glasgow Health and Well-being Survey 2002
7.31	Travel: percentage of the population who travel to their place of work/study by bicycle, foot and car. Excludes people not working or studying, or who work or study mainly at or from home.	2001 Census
8.1 – 8.3	Teenage pregnancies: teenage (13-19) pregnancies averaged over three years expressed as a crude rate per 100 females aged 13-19. <i>NB Rates are based on annual averages rather than three year totals, as used in the NHS Community Profiles.</i>	NHS Community Profiles (from ISD Scotland data); ISD Scotland
8.4	Teenage abortions: average annual teenage (13-19) abortions expressed as a rate per 100 females.	NHS Constituency Profiles (from ISD Scotland data)
8.5 – 8.6	Age of first-time mothers: average age in years of first time mothers.	NHS Community Profiles (from ISD Scotland data)
8.7	Older mothers: births to mothers aged 30 or older as a percentage of all births.	ISD Scotland
8.8	Age of mother at birth of first child. Presented by Carstairs deprivation quintile. Excludes home births and births at non-NHS hospitals.	ISD Scotland
8.9 – 8.12	Smoking in pregnancy: maternal smoking recorded at booking expressed as a percentage of all admissions.	NHS Community Profiles (from ISD Scotland data)
8.13	Smoking in pregnancy: maternal smoking recorded at booking by deprivation quintile.	ISD Scotland
8.14 – 8.17	Low birthweight babies: live births of low birthweight (<2500g) (totalled over three years) expressed as a percentage of all live singleton births.	NHS Community Profiles (from ISD Scotland data); ISD Scotland
8.18 – 8.19	Breastfeeding: average percentage of children born in 2000-2002 who were being breast-fed at 6-8 week review. Includes exclusively breast fed or fed mixed breast and bottle. NB Scottish figure is based on data for ten NHS Boards.	NHS Community Profiles (from ISD Scotland data)
8.20	Breastfeeding: breastfeeding rates recorded at the 6-8 week review for children born in 2004. Includes exclusively breast fed or fed mixed breast and bottle.	ISD Scotland
8.21	Breastfeeding: breastfeeding rates recorded at the 6-8 week review for period between 1998-2004. Includes exclusively breast fed or fed mixed breast and bottle. NB Scottish figure is based on data for ten NHS boards.	ISD Scotland
8.22 – 8.26	Primary immunisation uptake rate at 24 months for: (1) all immunisations excluding MMR (mumps, measles, rubella) i.e. Diphtheria, Pertussis, Tetanus, Polio, Hib; and (2) MMR only.	NHS Community Profiles (from ISD Scotland data)

Figure No.	Description/Notes	Source
9.1 – 9.4	Children of substance misusers: estimated numbers (and percentages) of children (age 0-15) with (and living with) ‘problem drug use’ and/or ‘problem alcohol use’ parents. Data taken from a report by University of Glasgow Centre for Drug Misuse Research for Glasgow City Council Addiction Services (see references section of Chapter 9: Children and adolescents). The figures are statistically modelled estimates derived from a number of different data sources. It is extremely difficult to gauge the accuracy of the findings and, as with any modelled estimates, the information should be interpreted with caution. Drugs misuse figures were calculated through combining data from a national drugs misuse prevalence report (published in 2005 and referenced in the ‘Behaviour’ chapter of this report), and the Drug Outcomes Research in Scotland (DORIS) study (see: www.gla.ac.uk/centres/drugmisuse/DORIS.html). The sample size for Glasgow in the latter study was only 240. Alcohol figures were derived from Glasgow City Council social enquiry reports and the same national drugs misuse report: the former allowed calculation of the ratio of problem drug users to problem alcohol users, which was then applied to the latter. Information on the numbers of children was again derived from the fairly small DORIS cohort.	University of Glasgow Centre for Drugs Misuse Research
9.5 – 9.7	Number and proportion (rate per 1,000) of children (aged 0-17) ‘looked after’ by a local authority. A child is defined as ‘looked after’ by a local authority: for whom they are providing accommodation under section 25 of the Children (Scotland) Act 1975; who is subject to a supervision requirement; who is subject to an order made, or authorisation or warrant granted, by virtue of Ch.2, 3 or 4 of the aforementioned act, being an order, authorisation or warrant in accordance with which they (the local authority) have responsibilities as respects the child; who is subject to an order in accordance with which, by virtue of regulations made under section 33(1) of the aforementioned act, they have such responsibilities (Norrie K, (1995) Children (Scotland) Act 1995. Edinburgh: W. Green/Sweet & Maxwell).	Care Scotland (from Scottish Executive CLA Returns)
9.8	Children looked after: reason for children being looked after by Glasgow City Council, as recorded on the council’s CareFirst system. Due to recording issues, it is difficult to obtain an accurate breakdown of the most common reasons for children being looked after, as a significant percentage are recorded as being in care as a result of ‘child protection orders’ – and these may have been issued for a variety of different reasons which cannot be extracted from the system.	Glasgow City Council Social Work Department (CareFirst system)
9.9 – 9.10	Child protection register: number and proportion (rate per 1,000) of children (0-15) placed on child protection register. Children are referred to the register in response to allegations of child neglect or physical, sexual, or emotional abuse. Not all referrals will result in the child’s name being added to the register, an action which reflects suspected or actual risk to the child. Data presented here are for placements on the register, not referrals.	Care Scotland (from Scottish Executive Children Statistics)
9.11 – 9.12	Children in workless households: percentage of dependent children living in households where no-one is in employment.	NHS Community Profiles (from 2001 Census data)
9.13	Pre-school overweight and obese children: children born in 1998 whose BMI (body mass index) – derived from height and weight measured at the 39-42 month review - is greater than the 85th centile. Data for Scotland exclude Grampian, Highland, Orkney, Shetland and Western Isles NHS Board areas.	NHS Community Profiles (from ISD Scotland data)
9.14	Dental health: percentage of five year old children with zero caries (no decayed, missing or filled teeth).	NDIP; SHBDEP
9.15	Dental health: percentage of five year old children with ‘obvious or advanced decay’ (as defined by NDIP risk levels 2 or 3: risk level 2 – ‘obvious evidence of decay experience and/or poor oral hygiene’; risk level 3 – ‘obvious advanced and/or widespread current decay’).	NDIP

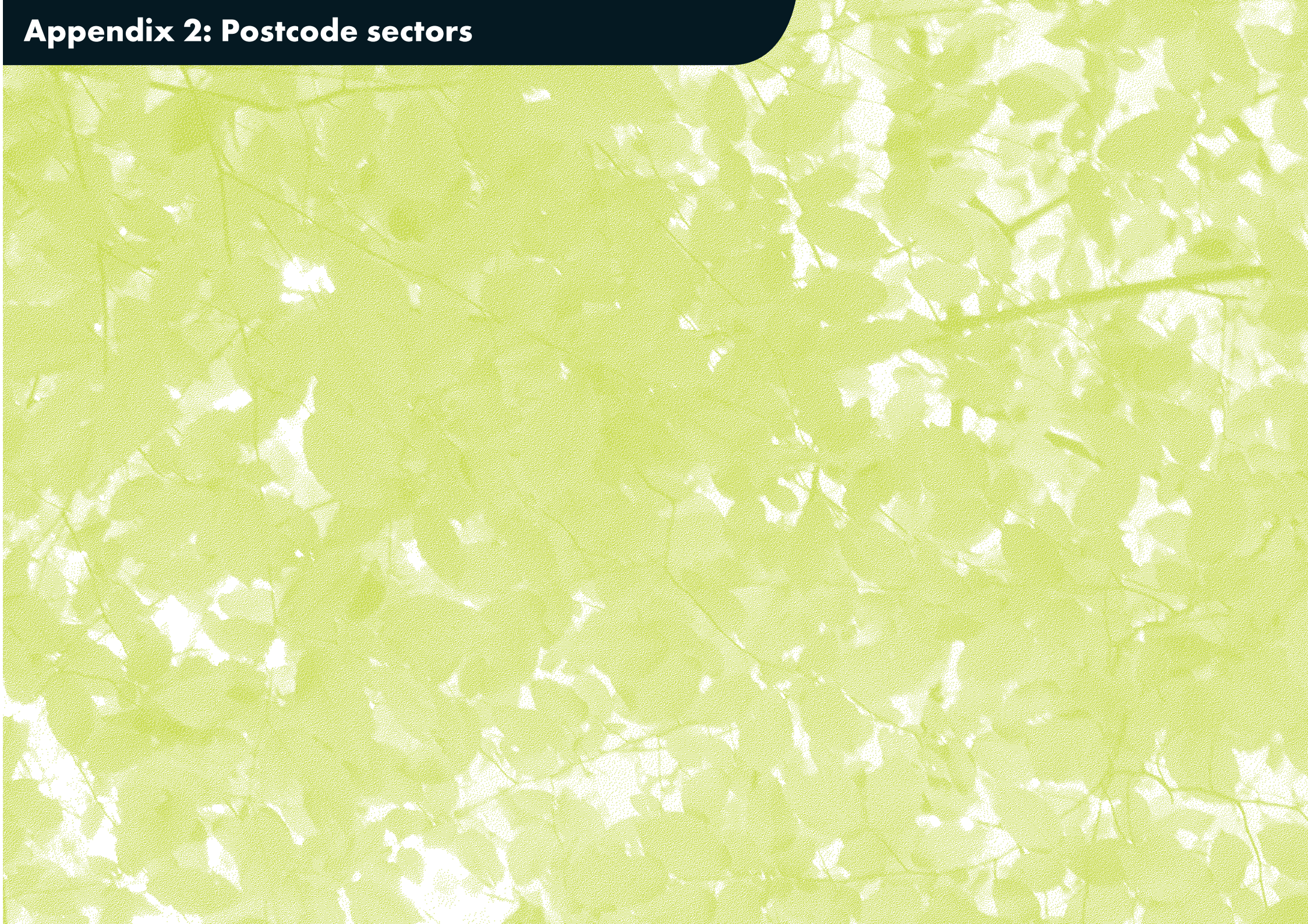
Figure No.	Description/Notes	Source
9.16 – 9.17	Dental hospital admissions among children: total (over four years) hospital inpatient stays among children (0-15) for dental related conditions. Expressed as crude rate per 100 children. Dental-related admissions defined by following ICD codes: ICD9 520-528 (except 520.3, .5, .7, 523.0, .3, 528.5-528.9), ICD10 K00-K12 (except K00.3, .5, .7, K05.0, .2, K100) (principal diagnosis only). For calculation of rates, 2001 populations were used for 1999-2002.	NHSHS Community Profiles (from ISD Scotland data)
9.18 – 9.26	Adolescent smoking, drinking and drug-taking: rates of smoking (pupils classifying themselves as 'regular smokers'); alcohol consumption (whether pupils had ever had an alcoholic drink; whether pupils had drunk alcohol in the previous week); and drug-taking (whether pupils had taken drugs in the past month) among 13 and 15 year olds.	SALSUS
9.27	Teenage alcohol attributable/related hospitalisations: average annual acute hospital inpatient stays for 13-19 year olds for directly alcohol related and alcohol attributable conditions expressed as a crude rate per 100 population aged 13-19. Diagnostic codes included within alcohol-related category were defined by ISD and are available on request or from ISD Scotland (see http://www.alcoholinformation.isdscotland.org). List of conditions (and weights) included within the broader alcohol-attributable category is available on request. Relevant conditions were sought in all primary and secondary admission diagnosis positions.	NHSHS Community Profiles (from ISD Scotland SMR1 and SMR4 data)
9.28	Child road accident casualties: total number of child (0-15) casualties expressed as a crude rate per 10,000 population aged 0-15. Note that casualties data were obtained from the Scottish Executive with rates then calculated based on the resident population of each council area. It is worth noting that casualties are assigned to a council area in which an accident occurred. However, clearly not all casualties necessarily come from the area where the accident occurred and, where traffic volumes are high and the road systems are most developed, there is a likelihood of higher numbers of casualties occurring. These caveats should be borne in mind when interpreting the rates presented.	Scottish Executive
10.1 – 10.2	Limiting long-term illness: percentage of individuals perceiving that they have a limiting long-term illness, health problem or disability which limits their daily activities or the work they can do, including problems that are due to old age.	NHSHS Community Profiles (from 2001 Census data)
10.3 – 10.4	Self assessed health: percentage of individuals classifying their health as 'not good'. This is derived from the census question on self-assessment of each person's general health over the last year. Three options are included on the census form: 'Good', 'Fairly Good', 'Not Good'.	NHSHS Community Profiles (from 2001 Census data)
10.5 – 10.7	Unable to work due to disability: percentage of working age population (women 16-59; men 16-64) claiming Incapacity Benefit (IB) or Severe Disablement Allowance (SDA). Incapacity Benefit is a contributory, non-means tested benefit. It is paid to people who are assessed as being incapable of work and who meet the appropriate contribution conditions. Severe Disablement Allowance is non-contributory, non-means tested benefit. People who are incapable of work and do not satisfy the contribution conditions for Incapacity Benefit (IB) may get SDA.	NHSHS Community Profiles (from DWP data); DWP
10.8 – 10.9	Disability Living Allowance claimants: percentage of population aged 18-64 claiming Disability Living Allowance (Mobility Component). DLA is payable to people who are disabled and who have personal care needs, mobility needs or both. The mobility component is for people who need help with getting around (it is not available for children under three).	NHSHS Community Profiles (from DWP data)

Figure No.	Description/Notes	Source
10.10 – 10.12	<p>Blue badge holders: total number (and rate per 100 population aged 17+) of blue (and orange (pre-April 2003)) badges issued. Includes badges issued on automatic and discretionary basis. Badges issued in the automatic categories are to recipients of: mobility allowances; the higher rate of mobility component of Disability Living Allowance; Government issued cars or grants towards their own cars; War Pensioners' Mobility Supplement; or to registered blind people. Badges granted in the discretionary category to people with a permanent and substantial disability who are unable or nearly unable to walk.</p> <p>Note, however, that it is unclear to what extent the variation in rates across the country is attributable to need, to different council practices or just to differences in age structure.</p>	Scottish Executive's Scottish Transport Statistics
10.13 – 10.14	Attendance Allowance claimants: percentage of population aged 65+ claiming Attendance Allowance benefit. Attendance Allowance is a benefit for people over the age of 65 who are so severely disabled, physically or mentally, that they need a great deal of help with personal care or supervision.	NHS Community Profiles (from DWP data)
11.1 – 11.8	<p>Estimates of disease prevalence at primary care level. The figures presented in this section are taken from the QOF (Quality and Outcomes Framework) data first published by ISD Scotland in summer 2005. The data – collated as part of the system to remunerate GPs within the agreed new General Medical Service (GMS) contract – include, for each practice, the total number of patients recorded on each of eleven separate disease registers. Participation in the scheme is, however, voluntary, and the data presented in Chapter 11: Illness and disease, for the NHS Greater Glasgow area, covers 210 out of the 215 Greater Glasgow practices. Two important points to note with regard to these data are highlighted in Chapter 11: (1) given the five missing GP practices, the figures will be an underestimate of the true disease prevalence of each disease category; (2) the data are currently not available by age or sex: thus, where crude rates are presented, they do not take into account the age/sex structures of the populations. Variations in rates could thus be a consequence of, for example, larger proportions of elderly patients within a practice population.</p> <p>Data presented at small area level (Figures 11.2-11.8) are GP Practice level data, with postcode sector of the GP Practice assigned a descriptive name from the list used in the community profiles (see Appendix 2 for full list).</p> <p>The total numbers of patients on disease registers (Figure 11.1) differ very slightly from figures published by ISD Scotland, due to differences in the total number of practices included in the analyses.</p> <p>Prevalence rates for diabetes and epilepsy at GP Practice level differ slightly from figures published by ISD Scotland as rates have been calculated per 100 practice population aged 15+, whereas data published by ISD data used the <i>total</i> practice population as denominator.</p> <p>Further information, data and definitions are available from: http://www.isdscotland.org/qof.</p>	ISD Scotland (QMAS Database as at May 2005)
11.9 – 11.12	Hospital admissions – diabetes: average annual numbers and directly age-standardised rates per 100,000 population of acute hospital continuous inpatient stays for particular diagnoses (ICD9 250; ICD10 E10-E14 (all diagnostic positions)). Standardisation carried out using WHO standard world population.	NHS Community Profiles (from ISD Scotland SMR1 data)

Figure No.	Description/Notes	Source
11.13 – 11.16	Hospital admissions – external causes: average annual numbers and directly age-standardised rates per 100,000 population of acute hospital continuous inpatient stays for particular diagnoses (ICD9 E800-E999; ICD10 V01-Y98 (all secondary diagnoses)). Standardisation carried out using WHO standard world population.	NHSHS Community Profiles (from ISD Scotland SMR1 data)
11.17	Hospital admissions – deliberate self harm: average annual numbers and directly age-standardised rates per 100,000 population of acute hospital continuous inpatient stays for particular diagnoses (ICD9 E950-E959; ICD10 X60-X84 (all secondary diagnoses)). Standardisation carried out using WHO standard world population.	NHSHS Community Profiles (from ISD Scotland SMR1 data)
11.18 – 11.19	First hospital admissions – psychiatric: average annual numbers and directly age-standardised rates for all first psychiatric inpatient episodes (mental health). Standardisation carried out using WHO standard world population.	NHSHS Community Profiles (from ISD Scotland SMR4 data)
11.20	Road accident casualties: number and rate per 10,000 population of casualties (all adults and children (0-15 years)) injured in road accidents. Road accidents and casualties are geographically referenced to the location of the accident. Thus, the rate of casualties presented is based on the number of road accident casualties in an area divided by the population in that area. Clearly not all casualties necessarily come from the area where the accident occurred and, where traffic volumes are high and the road systems are most developed, there is a likelihood of higher numbers of casualties occurring. These caveats should be borne in mind when interpreting the rates presented.	Transport Statistics, Scottish Executive
11.21	Ischaemic heart disease mortality: age standardised rates among men aged 15-74 years. Standardisation carried out using European standard world population. Definitions (including ICD codes) and methodology match those specified in: Leon, D. Scotland's health in an international context. Public Health Institute of Scotland, 2003 (http://www.phis.org.uk/projects/network.asp?p=ff).	GRO(S)
11.22	Deaths from heart disease (all forms): average annual deaths due to heart disease (ICD9 390-429; ICD10 I00-I52 (principal cause only) expressed as number and directly age-standardised rate per 100,000 population. Includes deaths at all ages. Excludes non-Scottish residents. Standardisation carried out using WHO standard world population.	NHSHS Community Profiles (from GRO(S) data)
11.23	Cerebrovascular disease mortality: age standardised rates among men aged 15-74 years. Standardisation carried out using European standard world population. Definitions (including ICD codes) and methodology match those specified in: Leon, D. Scotland's health in an international context. Public Health Institute of Scotland, 2003 (http://www.phis.org.uk/projects/network.asp?p=ff).	GRO(S)
11.24	Suicide: age standardised rates among men aged 15-74 years. Standardisation carried out using European standard world population. Definitions (including ICD codes) and methodology match those specified in: Leon, D. Scotland's health in an international context. Public Health Institute of Scotland, 2003 (http://www.phis.org.uk/projects/network.asp?p=ff).	GRO(S)
11.25 – 11.26	Deaths from cancer: average annual deaths due to all malignant neoplasms (ICD9 140-208; ICD10 C00-C97 (principal cause only)) expressed as number and directly age-standardised rate per 100,000 population. Includes deaths at all ages. Excludes non-Scottish residents. Standardisation carried out using WHO standard world population.	NHSHS Community Profiles (from GRO(S) data)
11.27 – 11.28	Lung cancer mortality: age standardised rates among men and women aged 15-74 years. Standardisation carried out using European standard world population. Definitions (including ICD codes) and methodology match those specified in: Leon, D. Scotland's health in an international context. Public Health Institute of Scotland, 2003 (http://www.phis.org.uk/projects/network.asp?p=ff).	GRO(S)

Figure No.	Description/Notes	Source
11.29	Premature mortality: male and female deaths under the age of 65 expressed as percentage of all deaths. Note that these proportions do not take account of the age structure of the population, and thus could be influenced by higher than average under 65 populations in any of the communities.	GRO(S)
11.30 – 11.33	Ten most frequently occurring principal causes of death under the age of 65 (shown as percentage of all deaths under 65).	GRO(S)
12.1	<i>Projections</i> of male life expectancy at birth in years. Projections created applying a simple linear regression to past life expectancy trends.	Applied to data from Office for National Statistics (ONS)
12.2	<i>Projections</i> of alcohol related mortality. Projections created applying a simple linear regression to past alcohol related mortality trends. See note for Figure 7.8 (above) for more details of the calculation of alcohol related mortality from death registrations.	Applied to GRO(S) data

Appendix 2: Postcode sectors



Appendix 2: Greater Glasgow and West of Scotland postcode sectors

The following postcode sectors are those contained within the West of Scotland ‘communities’ used in the analyses. With some minor adaptations, the descriptive names are those that were used in the Community Profiles. Although we believe that presenting the information in this way is more meaningful to the reader, it should be noted that these names are **very approximate**, and the boundaries of postcode sectors will seldom match natural communities.

Note that in the Community Profiles, particularly small postcode sectors (i.e. with populations of less than 1,000 people) were aggregated to produce areas with a larger population for which more robust statistics could be presented.

(Merged) postcode sectors	Descriptive name	Community	Greater Glasgow (G) or other West of Scotland (W)
G1 1, G1 2, G1 3, G1 4, G1 5, G2 1, G2 2, G2 3, G2 4, G2 5, G2 6, G2 7, G2 8	City Centre	Bridgeton and Dennistoun	G
G11 5	Partickhill	Glasgow West End	G
G11 6	Meadowside	Glasgow West End	G
G11 7	Broomhill	Glasgow West End	G
G12 0	Kelvindale; Kelvinside	Glasgow West End	G
G12 8	Hillhead	Glasgow West End	G
G12 9	Hyndland; Dowanhill	Glasgow West End	G
G13 1	Jordanhill; Temple	Anniesland, Bearsden and Milngavie	G
G13 2	Knightswood N	Glasgow West End	G
G13 3	Knightswood S	Glasgow West End	G
G13 4	Yoker N	Glasgow West End	G
G14 0	Yoker S	Glasgow West End	G
G14 9	Scotstoun	Glasgow West End	G
G15 6	Drumchapel SE	Clydebank and Drumchapel	G
G15 7	Drumchapel NE	Clydebank and Drumchapel	G
G15 8	Drumchapel W	Clydebank and Drumchapel	G
G20 0	Maryhill N	Maryhill, Woodside and North Glasgow	G
G20 6	Kelvin N	Glasgow West End	G
G20 7	Woodside	Maryhill, Woodside and North Glasgow	G
G20 8	Kelvinside N	Maryhill, Woodside and North Glasgow	G
G20 9	Ruchill	Maryhill, Woodside and North Glasgow	G
G21 1	Cowlairs	Maryhill, Woodside and North Glasgow	G
G21 2	Garngad; Royston	Bridgeton and Dennistoun	G
G21 3	Barmulloch; Robroyston	Maryhill, Woodside and North Glasgow	G
G21 4	Balornock	Maryhill, Woodside and North Glasgow	G
G22 5	Hamiltonhill	Maryhill, Woodside and North Glasgow	G

(Merged) postcode sectors	Descriptive name	Community	Greater Glasgow (G) or other West of Scotland (W)
G22 6	Parkhouse	Maryhill, Woodside and North Glasgow	G
G22 7	High Possil	Maryhill, Woodside and North Glasgow	G
G23 5	Summerston	Maryhill, Woodside and North Glasgow	G
G3 6	Park Circus; Woodlands....	Glasgow West End	G
G3 7	Kelvingrove	Glasgow West End	G
G3 8	Yorkhill	Glasgow West End	G
G31 1	Camlachie	Bridgeton and Dennistoun	G
G31 2	Dennistoun	Bridgeton and Dennistoun	G
G31 3	Haghill	Bridgeton and Dennistoun	G
G31 4	Parkhead S	Eastern Glasgow	G
G31 5	Parkhead N	Eastern Glasgow	G
G32 0	Springboig; Mount Vernon N	Eastern Glasgow	G
G32 6	Carntyne	Eastern Glasgow	G
G32 7	Shettleston; Tollcross	Eastern Glasgow	G
G32 8	Carmyle	Eastern Glasgow	G
G32 9	Sandyhills; MountVernon	Eastern Glasgow	G
G33 1	Blackhill	Eastern Glasgow	G
G33 2	Riddrie	Eastern Glasgow	G
G33 3	Ruchazie	Eastern Glasgow	G
G33 4	Barlanark	Eastern Glasgow	G
G33 5	Garthamlock	Eastern Glasgow	G
G33 6	Stepps	Eastern Glasgow	G
G34 0	Easterhouse E	Eastern Glasgow	G
G34 9	Easterhouse W	Eastern Glasgow	G
G4 0	Townhead	Bridgeton and Dennistoun	G
G4 9	Port Dundas; Woodlands	Glasgow West End	G
G40 1	Bridgeton W	Bridgeton and Dennistoun	G
G40 2	Calton	Bridgeton and Dennistoun	G
G40 3	Bridgeton E	Bridgeton and Dennistoun	G
G40 4	Dalmarnock	Bridgeton and Dennistoun	G
G41 1	Kinning Park S	South West Glasgow	G
G41 2	Strathbungo	Greater Shawlands	G
G41 3	Shawlands	Greater Shawlands	G
G41 4	Dumbreck	Greater Shawlands	G
G41 5	Pollokshields; Bellahouston	Greater Shawlands	G
G42 0	Polmadie; Toryglen	South East Glasgow	G
G42 7	Govanhill N	South East Glasgow	G
G42 8	Crosshill	South East Glasgow	G
G42 9	Battlefield	South East Glasgow	G
G43 1	Pollokshaws	Greater Shawlands	G
G43 2	Newlands	Eastwood	G
G44 3	Cathcart	South East Glasgow	G
G44 4	Kingspark	South East Glasgow	G

(Merged) postcode sectors	Descriptive name	Community	Greater Glasgow (G) or other West of Scotland (W)
G44 5	Croftfoot; Linn Park	South East Glasgow	G
G45 0	Castlemilk E	South East Glasgow	G
G45 9	Castlemilk W	South East Glasgow	G
G46 6	Giffnock	Eastwood	G
G46 7	Thornliebank	Eastwood	G
G46 8	Carnwadric; Darnley E	Greater Shawlands	G
G5 0	Hutchesontown; Gorbals; Oatlands	South East Glasgow	G
G5 8, G5 9	Tradeston; Gorbals	South East Glasgow	G
G51 1	Kinning Park N	South West Glasgow	G
G51 2	Ibrox	South West Glasgow	G
G51 3	Govan	South West Glasgow	G
G51 4	Shieldhall	South West Glasgow	G
G52 1	Craigton; Mosspark	South West Glasgow	G
G52 2	Cardonald N; Hillington	South West Glasgow	G
G52 3	Cardonald S	South West Glasgow	G
G52 4	Penilee	South West Glasgow	G
G53 5	Pollok	South West Glasgow	G
G53 6	Nitshill	South West Glasgow	G
G53 7	Hurlet; Nitshill; Darnley	South West Glasgow	G
G60 5	Old Kilpatrick	Clydebank and Drumchapel	G
G61 1	Bearsden - Westerton	Anniesland, Bearsden and Milngavie	G
G61 2	Bearsden - Kessington	Anniesland, Bearsden and Milngavie	G
G61 3	Bearsden - Kilmardinny	Anniesland, Bearsden and Milngavie	G
G61 4	Bearsden - Castlehill; Thorn	Anniesland, Bearsden and Milngavie	G
G62 6	Milngavie - Keystone; Dougalston	Anniesland, Bearsden and Milngavie	G
G62 7	Milngavie - Clober; Mains Est.	Anniesland, Bearsden and Milngavie	G
G62 8	Milngavie - Barloch	Anniesland, Bearsden and Milngavie	G
G64 1	Bishopbriggs E; Auchinairn	Strathkelvin	G
G64 2	Bishopbriggs W	Strathkelvin	G
G64 3	Bishopbriggs N; Cadder	Strathkelvin	G
G64 4	Torrance; Balmore	Strathkelvin	G
G65 0	Kilsyth	Cumbernauld	W
G65 9	Balmalloch; Queenzieburn	Cumbernauld	W
G66 1	Kirkintilloch W	Strathkelvin	G
G66 2	Kirkintilloch N; Hillhead	Strathkelvin	G
G66 3	Kirkintilloch S; Waterside	Strathkelvin	G
G66 4	Lenzie N	Strathkelvin	G
G66 5	Lenzie S; Auchinloch	Strathkelvin	G
G66 7	Lennoxton	Strathkelvin	G

(Merged) postcode sectors	Descriptive name	Community	Greater Glasgow (G) or other West of Scotland (W)
G66 8	Milton Of Campsie	Strathkelvin	G
G67 1	Seafar	Cumbernauld	W
G67 2	Lenziemill; Kildrum	Cumbernauld	W
G67 3	Abronhill	Cumbernauld	W
G67 4	Condorrat; Mollinsburn	Cumbernauld	W
G68 0	Cumbernauld Village; Dullatur	Cumbernauld	W
G68 9	Balloch; Westfield	Cumbernauld	W
G69 0	Moodiesburn	Eastern Glasgow	G
G69 6	Baillieston N	Eastern Glasgow	G
G69 7	Baillieston S	Eastern Glasgow	G
G69 8	Gartcosh	Eastern Glasgow	G
G69 9	Chryston	Eastern Glasgow	G
G71 5	Viewpark	Motherwell	W
G71 6	Tannochside	Motherwell	W
G71 7	Uddingston	Hamilton	W
G71 8	Bothwell	Hamilton	W
G72 0	Blantyre S; High Blantyre	Hamilton	W
G72 7	Cambuslang N	Cambuslang and Rutherglen	G
G72 8	Cambuslang S	Cambuslang and Rutherglen	G
G72 9	Blantyre N	Hamilton	W
G73 1	Rutherglen N	Cambuslang and Rutherglen	G
G73 2	Rutherglen W	Cambuslang and Rutherglen	G
G73 3	Rutherglen E	Cambuslang and Rutherglen	G
G73 4	Rutherglen SW	Cambuslang and Rutherglen	G
G73 5	Rutherglen SE	Cambuslang and Rutherglen	G
G74 1	East Kilbride - Centre	East Kilbride	W
G74 2	East Kilbride E - Saint Leonards	East Kilbride	W
G74 3	East Kilbride NE - Calderwood	East Kilbride	W
G74 4, G74 5	East Kilbride NW; Thorntonhall	East Kilbride	W
G75 0	East Kilbride SE - The Murray; Whitehills	East Kilbride	W
G75 8	East Kilbride SW - Westwood; Hairmyres	East Kilbride	W
G75 9	East Kilbride S - Greenhills	East Kilbride	W
G76 0	Eaglesham	Eastwood	G
G76 7	Clarkston	Eastwood	G
G76 8	Busby	Eastwood	G
G76 9	Carmunnock	Cambuslang and Rutherglen	G
G77 5	Broom; Kirkhill; Mearns	Eastwood	G
G77 6	Newton Mearns	Eastwood	G
G78 1	Barrhead W	Paisley and Levern Valley	W
G78 2	Barrhead E	Paisley and Levern Valley	W
G78 3, G78 4	Neilston; Uplawmoor	Paisley and Levern Valley	W

(Merged) postcode sectors	Descriptive name	Community	Greater Glasgow (G) or other West of Scotland (W)
G81 1	Whitecrook	Clydebank and Drumchapel	G
G81 2	Drumry; Linnvale	Clydebank and Drumchapel	G
G81 3	Radnor Park	Clydebank and Drumchapel	G
G81 4	Dalmuir	Clydebank and Drumchapel	G
G81 5	Faifley	Clydebank and Drumchapel	G
G81 6	Duntocher; W Hardgate	Clydebank and Drumchapel	G
G82 1	Dumbarton E	Lomond	W
G82 2	Milton	Lomond	W
G82 3	Dumbarton N	Lomond	W
G82 4	Renton; Kirktonhill	Lomond	W
G82 5	Cardross	Lomond	W
G83 0	Alexandria	Lomond	W
G83 7, G83 8	Arrochar	Lomond	W
G83 9	Bonhill; Jamestown	Lomond	W
G84 0	Garelochhead	Lomond	W
G84 7	Helensburgh E	Lomond	W
G84 8	Helensburgh; Rhu	Lomond	W
G84 9	Glen Fruin	Lomond	W
KA1 1	Kilmarnock	East Ayrshire	W
KA1 2	Kilmarnock; Bonnyton; Grange	East Ayrshire	W
KA1 3	Kilmarnock Centre; Bellfield	East Ayrshire	W
KA1 4	Riccarton; Shortlees	East Ayrshire	W
KA1 5	Hurlford	East Ayrshire	W
KA10 6	Troon-Town Centre; Barassie	South Ayrshire	W
KA10 7	Troon-Muirhead; Loans; Barassie	South Ayrshire	W
KA11 1	Girdle Toll; Stanecastle; Bourtreehill; Broomlands	North Ayrshire	W
KA11 2	Perceton; Sourlie; Doura; Roddinghill	North Ayrshire	W
KA11 3	Springside	North Ayrshire	W
KA11 4, KA11 5	Irvine; Dreghorn	North Ayrshire	W
KA12 0	Irvine	North Ayrshire	W
KA12 8	Fullarton	North Ayrshire	W
KA12 9	Irvine Centre; Stanecastle	North Ayrshire	W
KA13 6	Kilwinning	North Ayrshire	W
KA13 7	Kilwinning	North Ayrshire	W
KA14 3, KA15 1	Glengarnock; Longbar	North Ayrshire	W
KA15 2	Beith North	North Ayrshire	W
KA16 9	Newmills; Greenholm	East Ayrshire	W
KA17 0	Darvel	East Ayrshire	W
KA18 1	Cumnock	East Ayrshire	W
KA18 2	Ochiltree; Auchinleck	East Ayrshire	W
KA18 3	Muirkirk; Smallburn; Lugar; Logan	East Ayrshire	W
KA18 4	New Cumnock	East Ayrshire	W
KA19 7	Maybole; Crosshill; Straiton	South Ayrshire	W
KA19 8	Maybole	South Ayrshire	W
KA2 0	Knockentiber; Crosshouse	East Ayrshire	W
KA2 9	Dundonald	South Ayrshire	W
KA20 3	Stevenston; Auchendarvie	North Ayrshire	W

(Merged) postcode sectors	Descriptive name	Community	Greater Glasgow (G) or other West of Scotland (W)
KA20 4	Stevenston	North Ayrshire	W
KA21 5	Saltcoats South	North Ayrshire	W
KA21 6	Saltcoats North	North Ayrshire	W
KA22 7	Ardrossan; Whitlees; Chapelhill	North Ayrshire	W
KA22 8	Ardrossan	North Ayrshire	W
KA23 9	West Kilbride	North Ayrshire	W
KA24 4	Dalry	North Ayrshire	W
KA24 5	Dalry; Drakemyre	North Ayrshire	W
KA25 6	Kilbirnie South	North Ayrshire	W
KA25 7	Kilbirnie North	North Ayrshire	W
KA26 0	Ballantrae; Colmonell; Barrhill	South Ayrshire	W
KA26 9	Old Dally; Dally; Turnberry	South Ayrshire	W
KA27 8	Holy Island; Isle of Arran	North Ayrshire	W
KA28 0	Millport	North Ayrshire	W
KA29 0	Glenside; Fairlie; Kelburn	North Ayrshire	W
KA3 1	Altonhill; Knockinlaw....	East Ayrshire	W
KA3 2	Kilmaurs; Kirkcoun; Onthank	East Ayrshire	W
KA3 3	Stewarton	East Ayrshire	W
KA3 4	Lugton; Dunlop	East Ayrshire	W
KA3 5	Stewarton; Fulwood; Kingsford	East Ayrshire	W
KA3 6	Southcraigs; Fenwick	East Ayrshire	W
KA3 7	Whinpark; New Farm Loch; Beansburn	East Ayrshire	W
KA30 8	Largs	North Ayrshire	W
KA30 9	Largs East	North Ayrshire	W
KA4 8	Galston	East Ayrshire	W
KA5 5	Tarbolton	East Ayrshire	W
KA5 6	Mauchline; Catrine; Sorn	East Ayrshire	W
KA6 5	Mossblown; Annbank	South Ayrshire	W
KA6 6	Coylton; Dalrymple; Hollybush	South Ayrshire	W
KA6 7	Patna; Dalmellington....	East Ayrshire	W
KA7 1	Ayr - Harbour and W Town Centre	South Ayrshire	W
KA7 2	Ayr; Belmont	South Ayrshire	W
KA7 3	Holmston; Forehill; Belmont; Castlehill; Masonhill; Kincaidston	South Ayrshire	W
KA7 4	Doonfoot; Alloway	South Ayrshire	W
KA8 0	Dalmilling; Craigie	South Ayrshire	W
KA8 8	Woodfield; Wallacetown	South Ayrshire	W
KA8 9	Heathfield; Whitletts..	South Ayrshire	W
KA9 1	Prestwick	South Ayrshire	W
KA9 2	Monkton	South Ayrshire	W
ML1 1	Motherwell E	Motherwell	W
ML1 2	Motherwell S - Knoweton; Muirhouse	Motherwell	W
ML1 3	Motherwell N	Motherwell	W
ML1 4	Holytown	Motherwell	W
ML1 5	Newarthill; Cleland	Wishaw	W
ML10 6	Strathaven	East Kilbride	W
ML11 0	Lesmahagow; Coalburn; Douglas	Clydesdale	W
ML11 7	Lanark	Clydesdale	W
ML11 8	Carstairs; Forth; Carnwath	Clydesdale	W
ML11 9	Blackwood; Kirkmuirhill; Rigside	Clydesdale	W
ML12 6	Biggar; Leadhills; Abington	Clydesdale	W
ML2 0	Netherton; Overton	Wishaw	W
ML2 7	Wishaw W	Wishaw	W

(Merged) postcode sectors	Descriptive name	Community	Greater Glasgow (G) or other West of Scotland (W)
ML2 8	Wishaw E- Coltness; Greenhead	Wishaw	W
ML2 9	Newmains	Wishaw	W
ML3 0	Hamilton N- Whitehill; Burnbank	Hamilton	W
ML3 6	Hamilton NE	Hamilton	W
ML3 7	Hamilton SE - Barncluith; Eddlewood	Hamilton	W
ML3 8	Hamilton SW - Laighstonehall; Fairhill	Hamilton	W
ML3 9	Hamilton W - Udston	Hamilton	W
ML4 1	Bellshill N	Motherwell	W
ML4 2	Orbiston; Milnwood	Motherwell	W
ML4 3	Bellshill W	Motherwell	W
ML5 1	Coatbridge West	Airdrie and Coatbridge	W
ML5 2	Glenboig; Marnock	Airdrie and Coatbridge	W
ML5 3	Cliftonville	Airdrie and Coatbridge	W
ML5 4	Carnbroe; Shawhead	Airdrie and Coatbridge	W
ML5 5	Old Monkland; Kirkwood	Airdrie and Coatbridge	W
ML6 0	Burnfoot; Glenmavis	Airdrie and Coatbridge	W
ML6 6	Airdrie North	Airdrie and Coatbridge	W
ML6 7	Caldercruix; Longriggend	Airdrie and Coatbridge	W
ML6 8	Chapelhall; Craigneuk	Airdrie and Coatbridge	W
ML6 9	Coatdyke; Calderbank	Airdrie and Coatbridge	W
ML7 4	Shotts; Salsburgh	Wishaw	W
ML7 5	Allanton; Stane; Harthill	Wishaw	W
ML8 4	Carluke	Clydesdale	W
ML8 5	Rosebank; Crossford; W Carluke	Clydesdale	W
ML9 1	Larkhall W	Hamilton	W
ML9 2	Larkhall E	Hamilton	W
ML9 3	Stonehouse	Hamilton	W
PA1 1	Paisley Central	Paisley and Levern Valley	W
PA1 2	Millarston	Paisley and Levern Valley	W
PA1 3	Ralston	Paisley and Levern Valley	W
PA10 2	Kilbarchan	Renfrew and West Renfrewshire	W
PA11 3	Bridge of Weir	Renfrew and West Renfrewshire	W
PA12 4	Lochwinnoch	Renfrew and West Renfrewshire	W
PA13 4	Kilmacolm	Inverclyde	W
PA14 5	Port Glasgow W	Inverclyde	W
PA14 6	Port Glasgow E; Langbank	Inverclyde	W
PA15 1	Greenock Central	Inverclyde	W
PA15 2	Greenock E	Inverclyde	W

(Merged) postcode sectors	Descriptive name	Community	Greater Glasgow (G) or other West of Scotland (W)
PA15 3	Greenock SE	Inverclyde	W
PA15 4	Greenock Rankin	Inverclyde	W
PA16 0	Inverkip; Greenock SW	Inverclyde	W
PA16 7	Greenock Esplanade	Inverclyde	W
PA16 8	Greenock Finnart	Inverclyde	W
PA16 9	Loch Thom	Inverclyde	W
PA17 5	Skelmorlie; Meigle; Auchengarth	North Ayrshire	W
PA18 6	Wemyss Bay	Inverclyde	W
PA19 1	Gourock	Inverclyde	W
PA2 0	Foxbar	Paisley and Levern Valley	W
PA2 6	Espedair	Paisley and Levern Valley	W
PA2 7	Hunterhill	Paisley and Levern Valley	W
PA2 8	Glenburn	Paisley and Levern Valley	W
PA2 9	Lounsdale	Paisley and Levern Valley	W
PA3 1	Ferguslie Park	Paisley and Levern Valley	W
PA3 2	Laigh Park	Paisley and Levern Valley	W
PA3 3	Linwood	Renfrew and West Renfrewshire	W
PA3 4	Gallowhill	Paisley and Levern Valley	W
PA4 0	Renfrew S	Renfrew and West Renfrewshire	W
PA4 8	Renfrew N	Renfrew and West Renfrewshire	W
PA4 9	Inchinnan	Renfrew and West Renfrewshire	W
PA5 0	Johnstone Castle	Renfrew and West Renfrewshire	W
PA5 8	Johnstone	Renfrew and West Renfrewshire	W
PA5 9	Elderslie	Renfrew and West Renfrewshire	W
PA6 7	Houston	Renfrew and West Renfrewshire	W
PA7 5	Bishopton	Renfrew and West Renfrewshire	W
PA8 6	Erskine W	Renfrew and West Renfrewshire	W
PA8 7	Erskine E	Renfrew and West Renfrewshire	W
PA9 1	Howwood	Renfrew and West Renfrewshire	W

Appendix 3: Table of abbreviations



Appendix 3: Table of abbreviations

ABI	Annual Business Inquiry
ASHE	Annual Survey of Hours and Earnings
BMI	Body Mass Index
BTS	Below Tolerable Standard
CHCP	Community Health and Care Partnership
CHD	Coronary Heart Disease
CHP	Community Health Partnership
CLA	Children Looked After
COPD	Chronic Obstructive Pulmonary Disease
Dep Quin	Deprivation Quintile
DLA	Disability Living Allowance
DORIS	Drug Outcomes Research in Scotland
DWP	Department for Work and Pensions
EHS3	Environmental Health Surveillance System for Scotland
EPA	Environmental Protection Act
EPER	European Pollutant Emissions Register
FCS	Forestry Commission Scotland
FQA	Four Quarter Average
GCPH	Glasgow Centre for Population Health
GCVSPJC	Glasgow and Clyde Valley Structure Plan Joint Committee
GHA	Glasgow Housing Association
GIS	Geographical Information System
GMS	General Medical Service
GRO(S)/GROS	The General Register Office for Scotland
GVA	Gross Value Added
HESA	Higher Education Statistics Agency
Hib	Haemophilus influenzae type b
HLE	Healthy Life Expectancy
HRP	Household Reference Person
IB	Incapacity Benefit
ICD	International Classification of Diseases
IPPC	Industrial Pollution Prevention and Control
IS	Income Support
ISD Scotland	Information Services Division of NHS National Services Scotland
LE	Life Expectancy
LEAMS	Local Environmental Audit and Management System
LHCC	Local Healthcare Cooperative
LLI	Limiting Long-term Illness
MMR	Measles, Mumps, Rubella
MOH	Medical Officer of Health (of the City of Glasgow)
NES	New Earnings Survey
NDIP	National Dental Inspection Programme
NHSGG	NHS Greater Glasgow
NHSHS	NHS Health Scotland
NOMIS	National Online Manpower Information System
ONS	Office for National Statistics
OPEC	Organisation of Petroleum Exporting Countries
PAN	Planning Advice Note
QMAS	Quality Management and Analysis System
QOF	Quality and Outcomes Framework
RF	Regional Forecasts
RTRA	Road Traffic Reduction Act

SALSUS	Scottish Schools Adolescent Lifestyle & Substance Use Survey
SCIEH	Scottish Centre for Infection and Environmental Health
SDA	Severe Disablement Allowance
SE	Scottish Executive
SEPA	Scottish Environment Protection Agency
SHBDEP	Scottish Health Boards' Dental Epidemiological Programme
SHCS	Scottish House Condition Survey
SHHS	Scottish Household Survey
SHS	Scottish Health Survey
SIMD	Scottish Index of Multiple Deprivation
SIP	Social Inclusion Partnership
SMR1/2/4	Scottish Morbidity Records
SNH	Scottish Natural Heritage
SNS	Scottish Neighbourhood Statistics
STI	Sexually Transmitted Infections
SVDLS	Scottish Vacant and Derelict Land Survey
TIA	Transient Ischaemic Attack
WHO	World Health Organisation
WHOSIS	World Health Organisation Statistical Information System

