

# Health inequalities in Scotland

Extent of health inequalities: detailed analysis



 AUDIT SCOTLAND

Prepared for the Auditor General for Scotland and the Accounts Commission  
December 2012



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# Summary

## Background

1. Audit Scotland published its national report, *Health inequalities in Scotland*, on 13 December 2012. The report is available at [www.audit-scotland.gov.uk](http://www.audit-scotland.gov.uk). The national report included data on life expectancy and healthy life expectancy, and a summary of other indicators of health inequalities.<sup>1</sup> In this supplementary paper, we present a more detailed analysis of these indicators to examine the extent of health inequalities in Scotland. We have primarily assessed the link between deprivation and health inequalities (comparisons between people living in the one-fifth most deprived and one-fifth least deprived areas) but we have also reviewed other factors such as gender and ethnicity, where data were available.
2. **Part 1** of this paper presents a range of health indicators for adults to assess the extent of health inequalities related to them (**Exhibit 1**). These indicators are all linked to deprivation and some are linked to other factors such as gender and ethnicity.

### Exhibit 1

#### Indicators of health inequalities among adults

We analysed a range of indicators to assess the extent of health inequalities among adults.

Indicator	Description
Coronary Heart Disease (CHD)	<ul style="list-style-type: none"> <li>• CHD is one of the primary causes of death in Scotland and the most common cause of premature death. Scotland has one of the highest rates of deaths due to CHD in Western Europe.</li> </ul>
Alcohol misuse	<ul style="list-style-type: none"> <li>• Excessive consumption of alcohol can lead to a number of health problems, including liver disease, cancer, mental illness and early death. It can also lead to wider social problems including family disruption, absenteeism from work and financial difficulties.</li> </ul>
Smoking	<ul style="list-style-type: none"> <li>• Smoking is the most significant preventable cause of ill health in Scotland, and is a major factor in developing cancer, CHD and stroke. Smoking is also a significant factor in preventable early death in Scotland, with around 13,500 deaths a year (around a quarter of all deaths in Scotland) attributable to smoking.</li> </ul>
Drug misuse	<ul style="list-style-type: none"> <li>• Illicit drug use in Scotland has implications for both individuals and for society as a whole. Drug use is associated with a number of poor health outcomes, and in 2012 the number of drug-related deaths in Scotland reached an all-time high.</li> </ul>

<sup>1</sup> Healthy life expectancy is the number of years people can expect to live in good health.

Cancer	<ul style="list-style-type: none"> <li>Approximately 30,000 people in Scotland are diagnosed with cancer every year. While the incidence of cancer has been increasing (largely due to the ageing population), survival rates have improved over the last 20 years.</li> </ul>
Mental health	<ul style="list-style-type: none"> <li>Mental health problems, ranging from mild symptoms to clinically diagnosed illness, can cause long-lasting disability and increased mortality. Major mental health problems include depression, anxiety, substance misuse disorders, psychosis and dementia. Overall mental health in Scotland has been relatively stable over the past ten years but there are clear differences among different population groups.</li> </ul>
Obesity	<ul style="list-style-type: none"> <li>Obesity can increase the risk of developing a range of serious diseases and it is a major factor in hypertension, heart disease, some cancers, osteoarthritis and early death. Scotland has one of the highest levels of obesity in the world.</li> </ul>
Diabetes	<ul style="list-style-type: none"> <li>Diabetes is an increasing challenge to public health in Scotland with nearly five per cent of the population diagnosed with the condition. Type 2 diabetes is associated with health problems such as stroke, kidney disease, CHD and blindness.</li> </ul>
Cancer screening	<ul style="list-style-type: none"> <li>A number of screening programmes in Scotland aim to detect cancer early, resulting in better health outcomes. National screening programmes for cervical cancer and breast cancer were introduced in 1988, and the Scottish Bowel Screening Programme began in 2007.</li> </ul>
Unintentional injuries	<ul style="list-style-type: none"> <li>Unintentional injuries are a common cause of emergency hospital admission among adults.</li> </ul>

3. Children's early years are a major determinant of their future health.<sup>2</sup> We identified a range of health indicators for children ([Exhibit 2](#)) and present the extent of health inequalities related to them in **Part 2**.

<sup>2</sup> *Early Years Framework*, Scottish Government, 2008. The Scottish Government defined early years as pre-birth to eight years old.

**Exhibit 2****Indicators of health inequalities among children**

We analysed a range of indicators to assess the extent of health inequalities among children.

Indicator	Description
Birthweight	<ul style="list-style-type: none"> <li>Birthweight is an important indicator of the health of newborn babies, and it is linked to both maternal health and social circumstances. Birthweights outside normal ranges are strongly associated with poor health outcomes in both childhood and adulthood.</li> </ul>
Breastfeeding	<ul style="list-style-type: none"> <li>Breastfeeding has many major health benefits for both mothers and babies, both in the short and longer term, and for both mothers and babies. The percentage of babies in Scotland who are exclusively breastfed has remained constant in recent years but the pattern varies across different areas.</li> </ul>
Dental health	<ul style="list-style-type: none"> <li>Levels of tooth decay among children in Scotland have decreased over the last 30 years but they continue to be among the highest in the UK and Western Europe.</li> </ul>
Obesity	<ul style="list-style-type: none"> <li>Being overweight or obese during childhood is a health concern in itself but if it continues into adulthood it can lead to health problems such as heart disease, diabetes, some cancers and mental illness. The Scottish Government has established a National Indicator to increase the proportion of healthy weight children.</li> </ul>
Teenage pregnancy	<ul style="list-style-type: none"> <li>Teenage pregnancies have been linked with a range of negative consequences such as low birthweight, high infant mortality and poor maternal mental health.</li> </ul>
Unintentional injuries	<ul style="list-style-type: none"> <li>Unintentional injury is a leading cause of death and illness among children aged one to 14 years, and causes more children to be admitted to hospital each year than any other reason.</li> </ul>

# Part 1: Health inequalities among adults

## Deaths from coronary heart disease have reduced most in deprived areas

4. Rates of death from coronary heart disease (CHD) have reduced over the last decade but CHD remains one of the major causes of premature death. Between 2001 and 2010, the overall rate of death from CHD fell by around 40 per cent, and between 1995 and 2010 the rate of death among under-75s fell by 61 per cent, achieving the Scottish Government's target to reduce deaths by 60 per cent during this period. Despite these improvements, the CHD death rate in Scotland remains around one-third higher than in England and higher than in most other Western European countries.
5. Within Scotland, death rates from CHD are higher among males than females, with a rate of 168 per 100,000 for men in 2010 compared to 90 per 100,000 for women. Rates of death from CHD remain highest in West Central Scotland. Deprivation is a major factor, with rates in the most deprived areas over 1.5 times higher than in the least deprived areas. However, there is some evidence that inequalities are narrowing. Between 2001 and 2010, the rate of deaths from CHD reduced by a third in the most deprived areas but by less than one fifth in the least deprived areas ([Exhibit 3](#)).
6. The incidence of heart attacks and CHD varies by ethnic group. Compared with the rest of the population, the rates of heart attack are around 90 per cent higher among South Asian men and 50 per cent higher among South Asian women living in Scotland.<sup>3</sup>

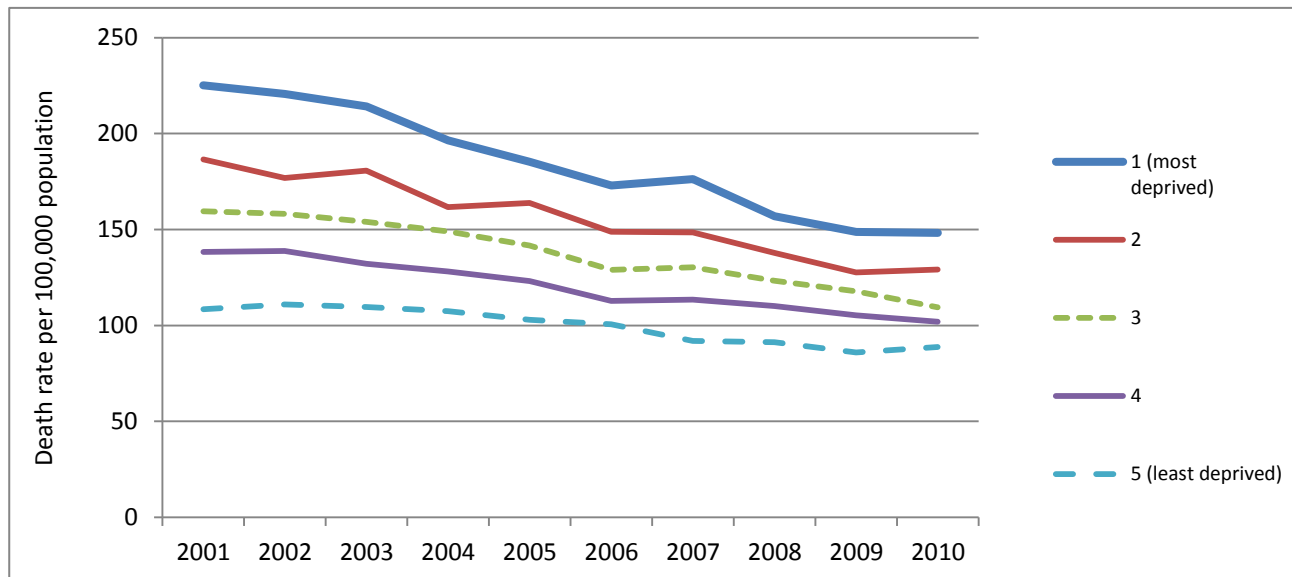
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<sup>3</sup> Record linked retrospective cohort study of 4.6 million people exploring ethnic variations in disease: myocardial infarction in South Asians, Fischbacher et al., BMC Public Health, 2007.

### Exhibit 3

#### Death rate from CHD by deprivation level, 2001 to 2010

Overall rates of death from CHD have reduced since 2001, with the largest reductions in the most deprived areas.



Source: Information Services Division, 2011

## Scotland has significant problems with alcohol misuse and major inequalities remain

7. Over the past 30 years, there have been significant increases in alcohol-related health problems in Scotland:
  - alcohol-related mental health problems have increased ten-fold
  - alcoholic liver disease has increased five-fold
  - alcohol-related hospital admissions have quadrupled, although rates have decreased in recent years
  - alcohol-related deaths have trebled, although rates have fluctuated in recent years.
8. Scotland faces greater problems with alcohol misuse than other parts of the UK. In 2011, alcohol sales per adult in Scotland were around one-fifth higher than in England and Wales. Rates of alcohol-related health problems are also considerably higher in Scotland, and alcohol-related death rates among both men and women in Scotland are approximately double those in England and Wales.
9. Alcohol-related problems in Scotland are more prevalent among men than women. In 2010/11, the rates of alcohol-related hospital discharges for men were more than double the rates for women (1,020 and 395 per 100,000, respectively). Of the 1,247 alcohol-related deaths in Scotland in 2011, almost two-thirds (815) were men.

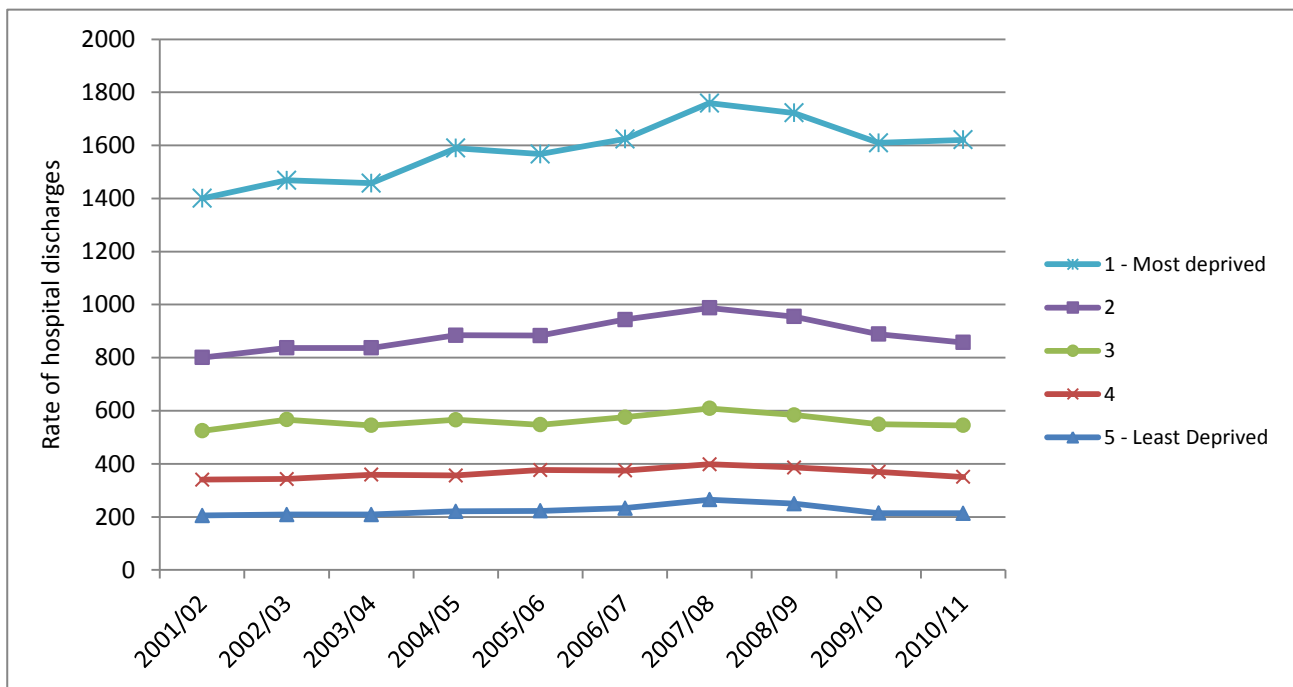


10. Although the rates of alcohol-related hospital discharges have decreased in recent years, rates among people in the most deprived areas remain over seven times higher than in the least deprived areas (Exhibit 4). Rates of alcohol-related deaths are over six times higher in the most deprived areas.

#### Exhibit 4

#### Rate of alcohol-related hospital discharges by level of deprivation, 2001/02 to 2010/11

Rates of alcohol-related hospital discharges are over seven times higher in the most deprived areas.



Source: Audit Scotland analysis of Information Services Division data, 2012

### Smoking levels are four times higher in the most deprived areas

11. Smoking is the most significant preventable cause of ill health in Scotland, and is a major factor in cancer, CHD and stroke. Smoking is also a significant factor in preventable early death in Scotland, with around 13,500 deaths a year (around a quarter of all deaths in Scotland) attributable to smoking. It is estimated that treating smoking-related diseases costs the NHS in Scotland around £409 million a year.<sup>4</sup>
12. Over the past 30 years, smoking rates among adults have generally been higher in Scotland than in England and Wales. It is estimated that around a million adults in Scotland (just under a quarter of the adult population) currently smoke. The percentage of adults who smoke fell from over 30 per cent in 1999 to around 23 per cent in 2011.

<sup>4</sup> A healthier nation, a healthier economy, British Heart Foundation, 2011.

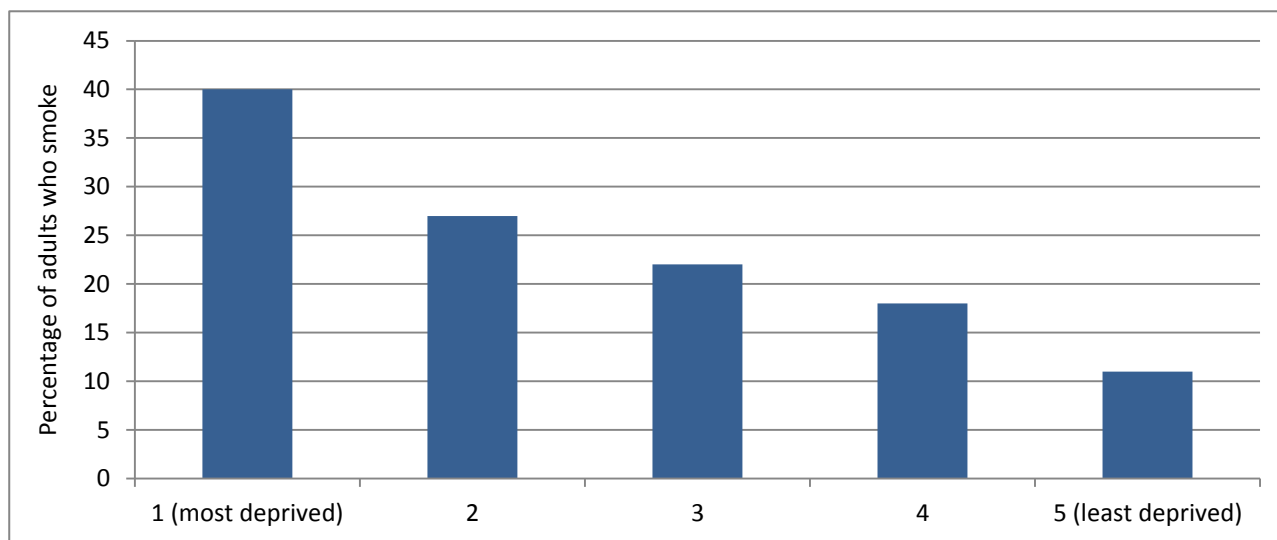
13. There is a strong relationship between deprivation level and smoking. Smoking rates generally decrease along with deprivation level, with smoking among adults around four times higher in the most deprived areas compared with the least deprived areas (Exhibit 5).

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### Exhibit 5

#### Percentage of adult smokers by level of deprivation, 2011

Smoking among adults is around four times higher in the most deprived areas



Source: Scottish Health Survey, 2012

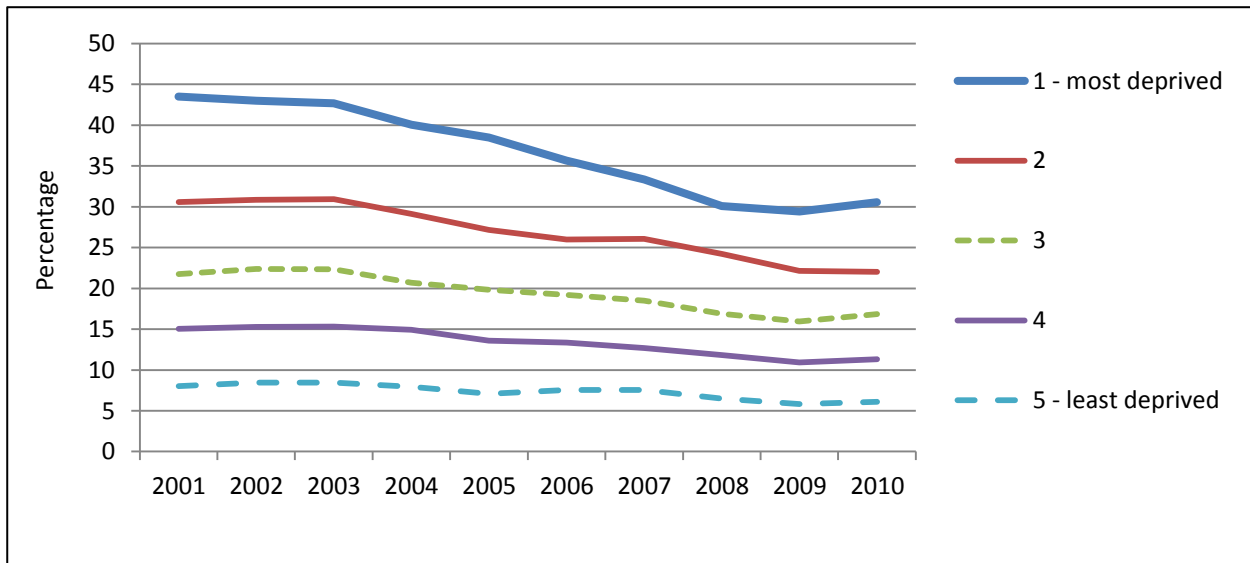
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#### Percentage of women smoking when pregnant has decreased most in deprived areas

14. The percentage of women who reported that they were smoking while pregnant has decreased steadily over the past 10 years for all groups, but the largest reduction was in the most deprived areas. The rate in the most deprived areas has fallen by 30 per cent compared to a fall of 24 per cent in the least deprived areas, although levels remain around five times higher than in the least deprived areas (Exhibit 6).

**Exhibit 6****Percentage of women smoking while pregnant by level of deprivation, 2001 to 2010**

The largest reductions have been among women in the most deprived areas.



Source: Information Services Division, 2011

## Drug misuse is more common among men and among people in deprived communities

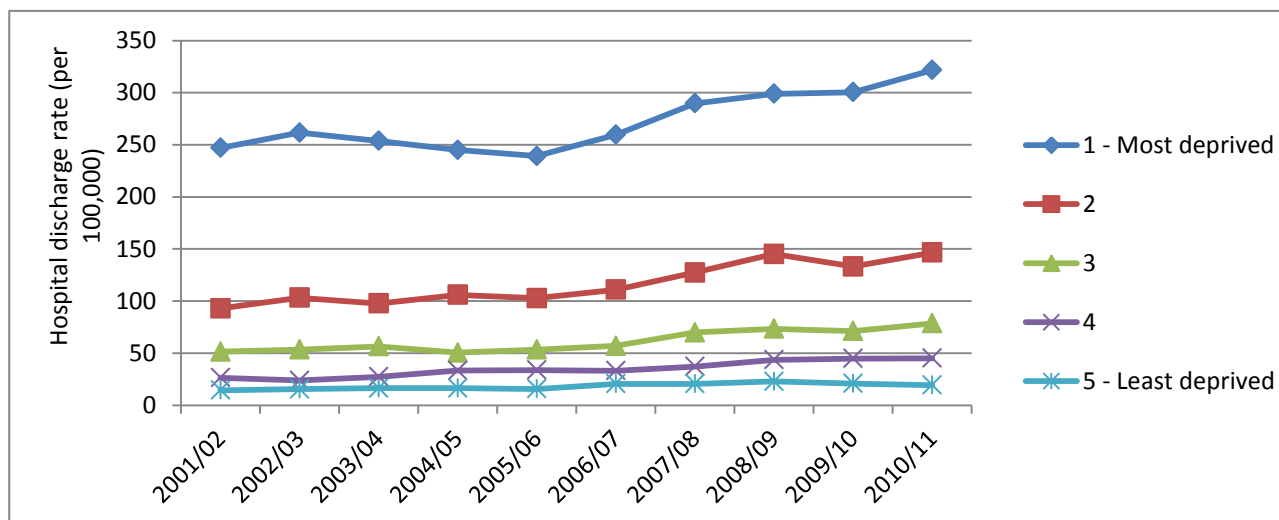
15. The estimated number of problem drug users in Scotland increased from around 55,000 in 2006 to almost 60,000 in 2009/10.<sup>5</sup> In 2011, there were 584 drug-related deaths in Scotland, an increase of around one-fifth since 2010 and the highest total ever recorded.
16. Drug misuse is more prevalent among men than women. Men account for almost three-quarters of drug-related deaths and more than two-thirds of drug-related hospital discharges.
17. Deprivation is an important factor in the scale of drug misuse in Scotland, with more than half of drug-related deaths in 2010 among people in the most deprived areas. In 2010/11, the rate of drug-related hospital discharges was over 16 times higher among people in the most deprived areas compared with those in the least deprived areas ([Exhibit 7](#)).

<sup>5</sup> *Estimating the National and Local Prevalence of Problem Drug Misuse in Scotland*, Centre for Drug Misuse Research, University of Glasgow Scottish Centre for Infection and Environmental Health, 2012.

## Exhibit 7

## Drug-related hospital discharges, 2001/02 to 2010/11

Rates of drug-related hospital discharge are over 16 times higher among people living in the most deprived areas.



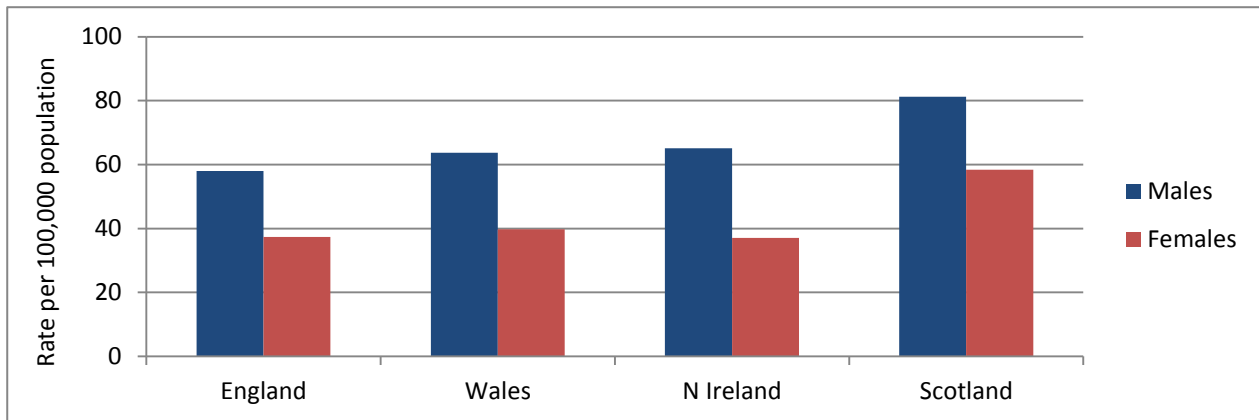
Source: Audit Scotland analysis of Information Services Division data

## Deaths from cancer are decreasing but remain influenced by gender, deprivation and type of cancer

18. Between 2001 and 2011, death rates from all major cancers decreased by about 12 per cent in Scotland with the exception of lung cancer in females which increased by 11 per cent. Lung cancer levels in Scotland are among the highest in the world, and compared with the rest of the UK, lung cancer levels in Scotland are around one-third higher in males and around 50 per cent higher among females ([Exhibit 8](#)).
19. Both incidence rates and deaths from cancer are associated with deprivation level. The most recent figures show that, compared with the least deprived areas, the overall incidence rate was around one-third higher and the overall mortality rate was around three-quarters higher in the most deprived areas ([Exhibit 9](#)). There is some evidence that inequalities in deaths from cancer are widening, as between 2000 and 2009 the rate of deaths from cancer decreased by 12 per cent overall but only fell by three per cent in the 15 per cent most deprived areas.
20. The effects of deprivation on cancer levels vary depending on the type of cancer. Levels of breast cancer and skin cancer are highest in the least deprived areas but incidence and deaths from bowel, cervical and lung cancer are all highest in the most deprived areas.

**Exhibit 8****Lung cancer incidence in the UK, 2007-09**

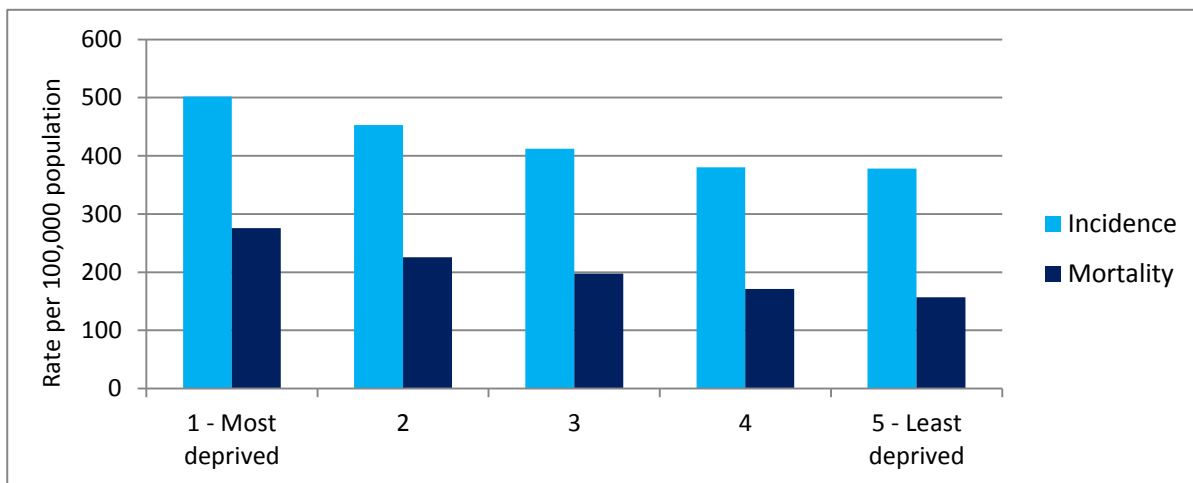
Lung cancer rates are higher in Scotland than in rest of the UK.



Source: Office for National Statistics, 2012

**Exhibit 9****Cancer incidence rates (2006-10) and mortality rates (2007-09) by deprivation**

Overall incidence and mortality rates are higher in more deprived areas.



Source: Information Services Division, 2012

## Indicators of mental health differ between males and females and are worse in deprived areas

21. Mental health problems, ranging from mild symptoms to clinically diagnosed illness, can cause long-lasting disability and increased mortality. Major mental health problems include depression, anxiety, substance misuse disorders, psychosis and dementia. Overall mental health in Scotland has been relatively stable over the past ten years but there are clear differences among different population groups. In October 2012, NHS Health Scotland

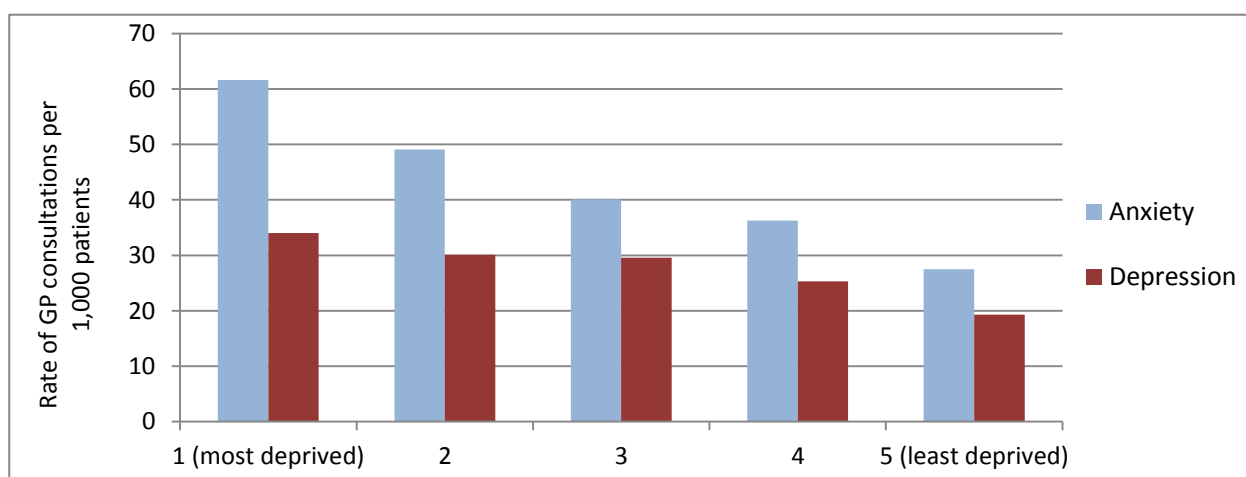
reported that 44 of 50 indicators of mental health were significantly associated with deprivation, with 42 of these indicators showing poorer mental health in more deprived areas.<sup>6</sup>

22. Mental health in Scotland is influenced by various factors, including gender and deprivation. In 2010/11, more than twice as many female patients (83 per 1,000) from the most deprived areas consulted GPs for anxiety than male patients (40 per 1,000), and these rates were more than twice as high as those in the least deprived areas (38 per 1,000 and 17 per 1,000, respectively). A similar pattern was seen for patients consulting GPs for depression (Exhibit 10).

### Exhibit 10

#### GP consultations for anxiety and depression, 2010/11

Rates of GP consultations for anxiety and depression are higher among people living in more deprived areas.



Source: Audit Scotland analysis of Information Services Division data

23. The Scottish Government aims to improve mental wellbeing, demonstrated by an increase in the average score of adults on the Warwick-Edinburgh Mental Wellbeing Scale. The most recent results (from 2011) show little overall change from the 2006 baseline. Previous years' data indicated that the average score among people in the least deprived areas was around ten per cent higher than in the most deprived areas, indicating better mental wellbeing.
24. In Scotland, suicide is a leading cause of mortality among people under 35. Suicide rates vary widely among different groups, with rates among men around three times higher than those among women, and over three times higher among people living in the most deprived areas compared with those in the least deprived areas. Between 2007 and 2011, the suicide rate in Scotland was 26.4 per 100,000 in the most deprived areas compared to 7.1 per 100,000 in the least deprived areas.
25. The suicide rate in Scotland has been similar to or lower than the EU average since the 1980s.<sup>7</sup> There is a national target to reduce the overall suicide rate in Scotland by 20 per cent

<sup>6</sup> Scotland's mental health: Adults 2012, NHS Health Scotland, 2012.

between 2000-02 and 2011-13, and by 2009-11 the rate had decreased by 17 per cent. Despite this decrease, in 2008 the suicide rate among males in Scotland (24.1 per 100,000) was almost double that in England and Wales (12.6 per 100,000).

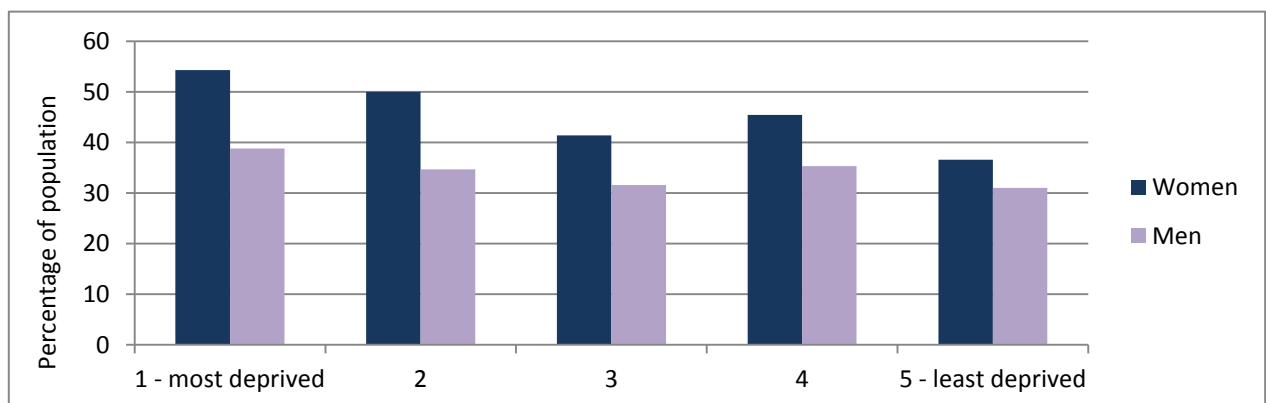
## Obesity levels vary with age and deprivation level, and are predicted to increase

26. Obesity can increase the risk of developing a range of serious diseases. For example, around half of type 2 diabetes cases can be attributed to obesity, and it is a major factor in hypertension, heart disease, some cancers, osteoarthritis and early death.
27. With over a million adults (more than a quarter of the adult population) either obese or morbidly obese, Scotland has one of the highest levels of obesity in the world. Between 1995 and 2011, the percentage of adults in Scotland who were overweight or obese increased from 52 per cent to around 62 per cent, and the percentage that were obese rose from 17 per cent to 27 per cent. Most of these increases occurred between 1995 and 2008 with little change in recent years. Adult obesity levels are predicted to reach 40 per cent by 2030, an increase of more than 50 per cent compared with 2008 levels.<sup>8</sup>
28. Obesity level increases with age. In 2010, the highest prevalence (around 38 per cent) was in people aged 55-64 and the lowest level (around 13 per cent) in those aged 16-24. Obesity is also linked to deprivation, with people in more deprived areas having higher risks of disease (measured by Body Mass Index and waist circumference) than those in less deprived areas (Exhibit 11). The link between deprivation level and obesity-related disease risk was stronger among women than men.

### Exhibit 11

#### Risk of obesity-related disease by deprivation level, 2008-11

There is a higher risk of obesity-related disease in more deprived areas, especially among women.



Source: Scottish Health Survey, 2012

<sup>7</sup> *Scotland and European Health for All Database*, Scottish Public Health Observatory, 2012.

<sup>8</sup> *Preventing overweight and obesity in Scotland*, Scottish Government, 2010.

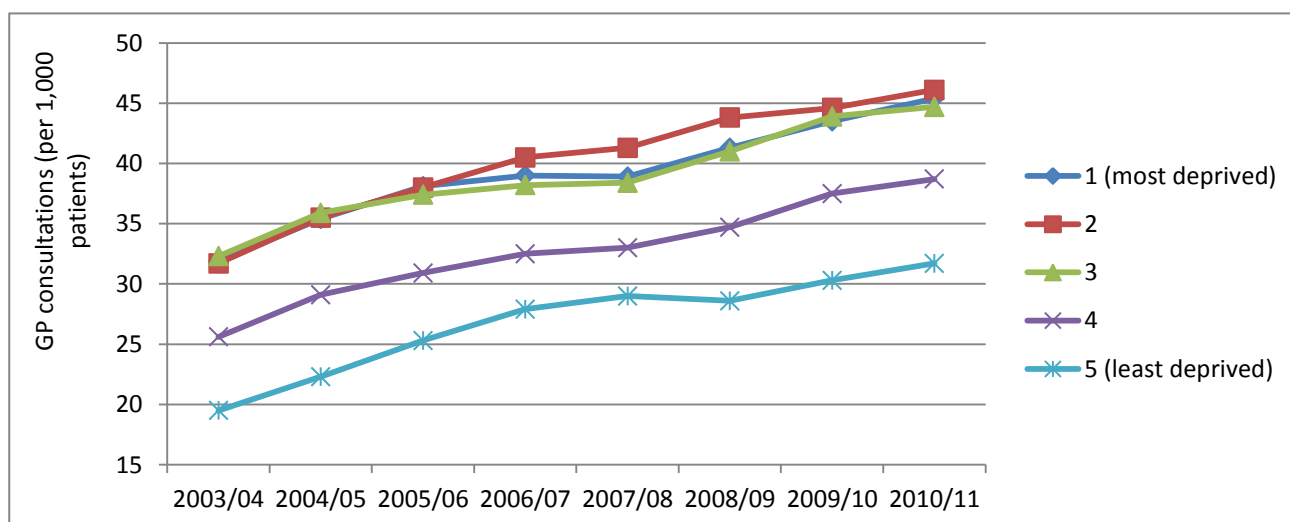
## Diabetes is increasing and there are higher levels in more deprived areas and among some minority ethnic groups

29. At the start of 2012, there were around 247,000 people in Scotland who had been diagnosed with diabetes and an estimated 50,000 with the condition but who had not been diagnosed. The prevalence of diabetes in Scotland increased by around 18 per cent between 2007 and 2011 but it is lower than in the other UK countries.
30. In 2011, around 90 per cent of people with diabetes in Scotland had type 2 diabetes. This may be related to an ageing population, increasing levels of obesity, poor diet and low levels of physical activity. Diabetes is also associated with deprivation, with higher rates of GP consultations among people in more deprived areas ([Exhibit 12](#)).

### Exhibit 12

#### GP consultations for diabetes, 2003/04 to 2010/11

There are lower rates of GP consultations for diabetes in more affluent areas.



Source: Audit Scotland analysis of Information Services Division data, 2012

31. Ethnicity is also major factor in developing type 2 diabetes. The recording of data on ethnicity for the Scottish Diabetes Survey is incomplete, but UK data indicate that prevalence is up to six times higher among South Asians than in the rest of the population, and up to three times higher among people of African and African-Caribbean origin.<sup>9</sup>

## Uptake of bowel and breast screening services vary by deprivation, and bowel screening rates are higher among women than men

32. The Scottish Bowel Cancer Screening Programme invites all men and women between the ages of 50 and 74 years who are registered with a GP to participate. The Healthcare Improvement Scotland standard for bowel screening uptake is 60 per cent. Between November 2009 and October 2011, the overall uptake rate for bowel screening was around 55

<sup>9</sup> *Diabetes in the UK 2012*, Diabetes UK, April 2012.

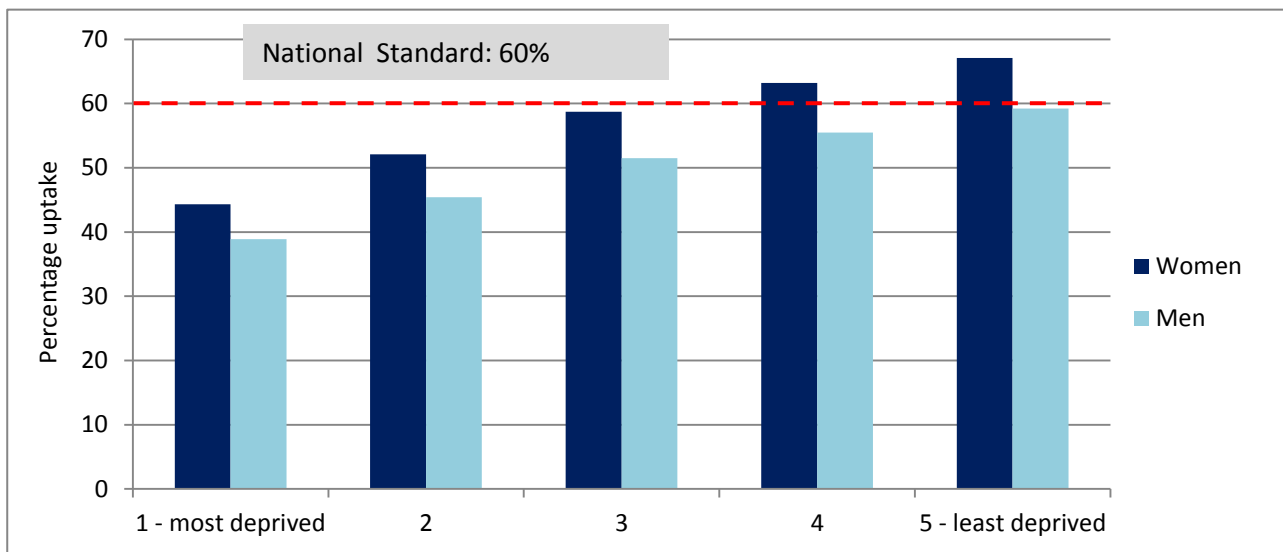


per cent. Uptake was higher among women (58 per cent) than men (51 per cent), and was higher among people in more affluent areas ([Exhibit 13](#)). Only women living in the least deprived 40 per cent of areas in Scotland met the 60 per cent standard. Less than 40 per cent of men in the most deprived areas took up bowel screening services.

### Exhibit 13

#### Uptake of bowel screening services, November 2009 to October 2011

Only women in the 40 per cent least deprived areas met the national standard for bowel screening uptake.



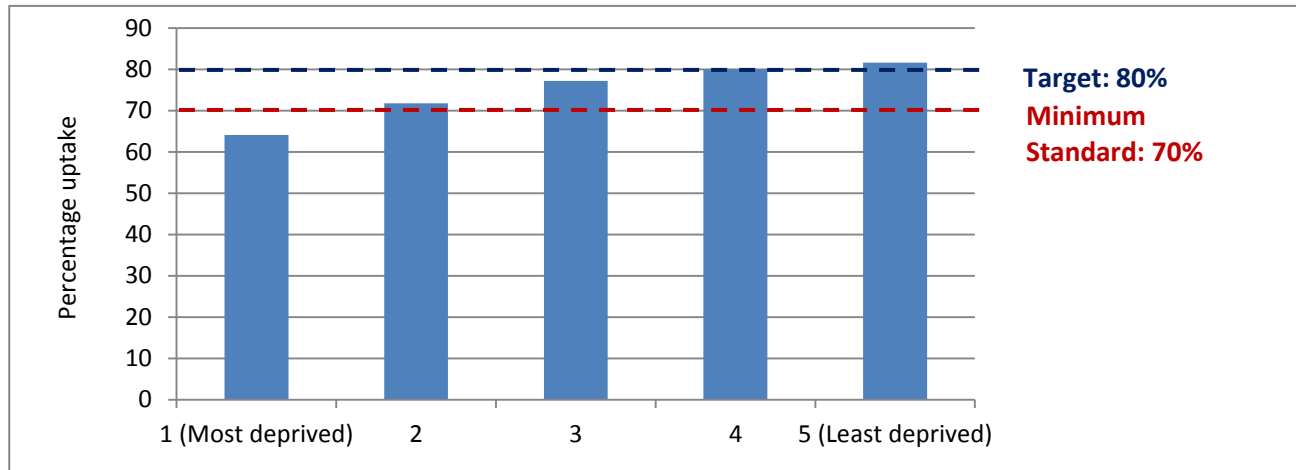
Source: Information Services Division, 2012

33. In Scotland, women aged 50-70 are invited for a routine breast screen once every three years. Women over 70 are screened every three years on request. Between 2007/08 and 2010/11, the overall uptake rate was around 75 per cent which exceeded the minimum performance standard of 70 per cent but fell short of the national target of 80 per cent. Between 2006/07 and 2008/09 (the most recent period for which data are available), only women in the least deprived areas met the national target but the national standard was not met for women in the most deprived areas ([Exhibit 14](#)). There was little change in uptake rates across the deprivation levels compared with the previous three-year period.

**Exhibit 14**

**Uptake of breast screening services, 2006/07 to 2008/09**

The national standard for breast screening uptake was not met for women in the most deprived areas.



Source: Information Services Division, 2012

34. Cervical screening is routinely offered to eligible women aged 20-60 every three years.<sup>10</sup> At March 2012, 73 per cent of eligible women had been screened in the previous 3.5 years, a decrease of 0.6 per cent compared to March 2011. Cervical screening uptake rates are not published nationally by deprivation.

**Hospital admissions and deaths among adults from unintentional injuries vary by age and deprivation level**

- 35. In 2010/11, approximately one in nine adult emergency hospital admissions was due to unintentional injuries. Between the ages of 15 and 64, men are more likely than women to be admitted to hospital due to unintentional injury. However, this pattern changes in the over-65 age groups where females are more likely to be admitted due to an unintentional injury.
- 36. Unintentional injuries generally increase with deprivation level. In 2010/11, adults in the most deprived areas were more than twice as likely to have an emergency hospital admission due to an unintentional injury as those in the least deprived areas. Between 2006 and 2010, there were almost twice as many deaths from unintentional injuries among adults in the most deprived areas (1,502 deaths) compared with those living in the least deprived areas (810 deaths).

<sup>10</sup> This excludes women with a medical condition which renders them ineligible for cervical screening.

# Part 2: Health inequalities among children

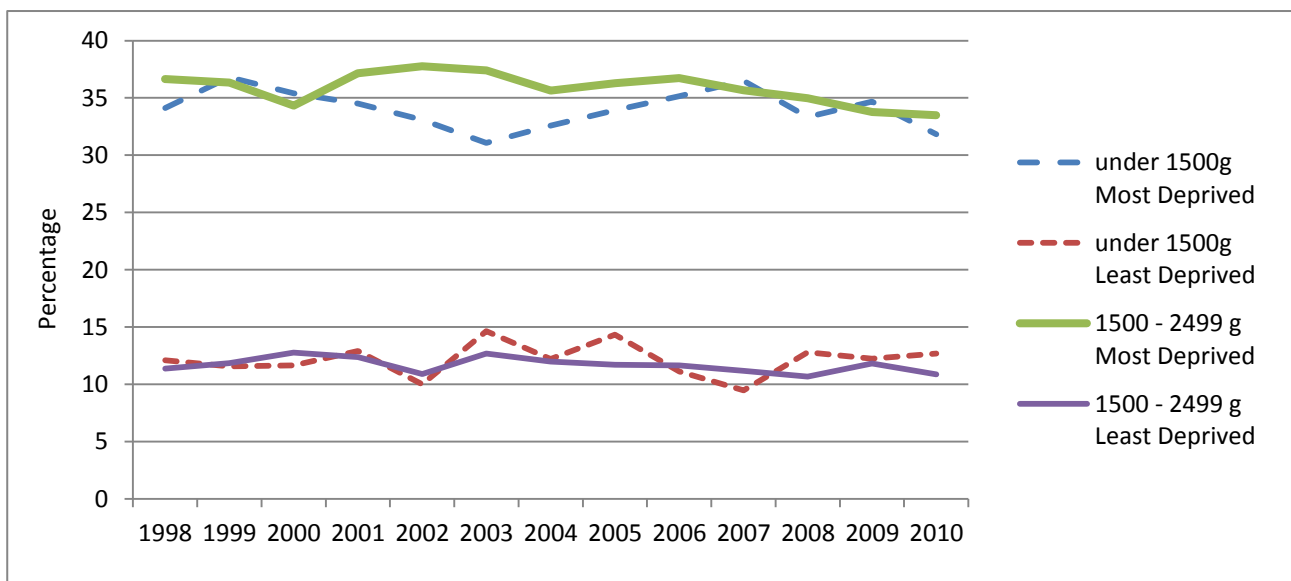
## Percentage of low birthweight babies is around three times higher in the most deprived areas

37. Low birthweight (less than 2500g) is a major determinant of infant mortality and morbidity, and is associated with a number of maternal factors, including age, smoking, and drug and alcohol misuse. The percentage of low birthweight babies also increases with the level of deprivation, with over twice as many born to mothers from the most deprived areas than from the least deprived areas. Both the overall percentages of low birthweight and very low birthweight (less than 1500g) babies, and the differences between the most and least deprived areas, appear to be relatively stable in recent years (Exhibit 15).

### Exhibit 15

#### Percentage of low and very low birthweight babies, 1998-2010

Around three times as many low and very low birthweight babies are born to mothers in the most deprived areas.



Source: Audit Scotland analysis of Information Services Division, 2011

## Breastfeeding rates have remained largely constant and are over twice as high in more affluent areas

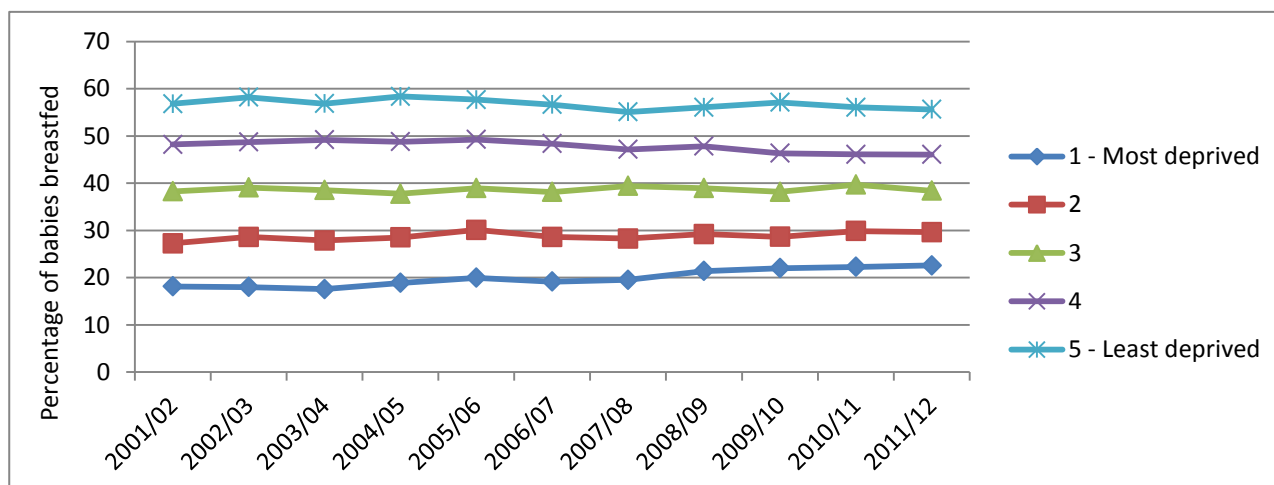
38. Breastfeeding has many major health benefits for both mothers and babies, both in the short and longer term, and for both mothers and babies. For example, breastfed infants are likely to have reduced risks of infections and childhood obesity, and improved cognitive development.

39. The Scottish Government recognises that breastfeeding is an important factor in reducing health inequalities and has stated its commitment to promoting breastfeeding in Scotland. The Scottish Government also acknowledges that encouraging mothers to exclusively breastfeed for longer brings greater health benefits, and the NHS in Scotland had a target to achieve one third of newborn children exclusively breastfed at six to eight weeks in 2010/11. However, breastfeeding rates have remained largely unchanged in the past decade and in 2010/11 just over a quarter of newborn children were exclusively breastfed at six to eight weeks, and no NHS board met its local target.
40. Breastfeeding also varies by deprivation level. In 2011/12, mothers in the most affluent areas were more than twice as likely to breastfeed at 6-8 weeks compared with mothers in the most deprived areas (Exhibit 16) and rates of exclusive breastfeeding were almost three times higher in the most affluent areas. However, between 2001/02 and 2011/12 there were increases in the percentage of babies in the most deprived areas who were breastfed and exclusively breastfed while the corresponding figures in the least deprived areas either remained stable or decreased. As a result, the differences between the most and least deprived areas for both overall breastfeeding and exclusive breastfeeding decreased between 2001/02 and 2011/12.

### Exhibit 16

#### Percentage of newborn babies breastfed, 2001/02 to 2011/12

Breastfeeding rates have increased in the most deprived areas but have remained stable in the least deprived areas.



Source: Information Services Division, 2012

### Children's dental health has improved but significant inequalities remain

41. Levels of tooth decay among children in Scotland continue to be among the highest in the UK and western Europe. However, children's dental health has improved over the last 30 years:

- in 2012, 67 per cent of 5-year-old children in Scotland had no obvious decay experience which exceeded the national target of 60 per cent
- in 2005, just over half of 11 to 12-year-old children had no obvious decay experience. In 2011, this figure had increased to almost 70 per cent which exceeded the 2010 target of 60 per cent.

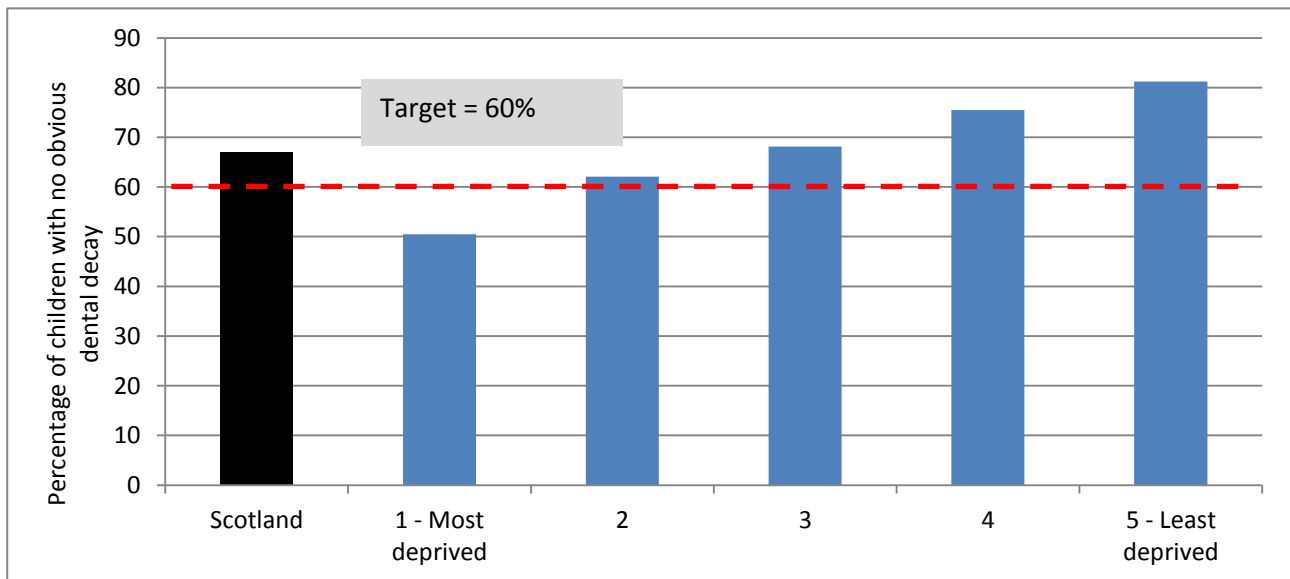
42. Despite recent improvements, inequalities in children’s dental health remain:

- In 2010, 5-year-old children living in the most deprived areas were around ten per cent below the Scottish Government’s target for no obvious dental decay ([Exhibit 17](#)).

**Exhibit 17**

**Percentage of 5-year-old children with no obvious dental decay, 2012**

Children in the most deprived areas did not meet the Scottish Government’s target.



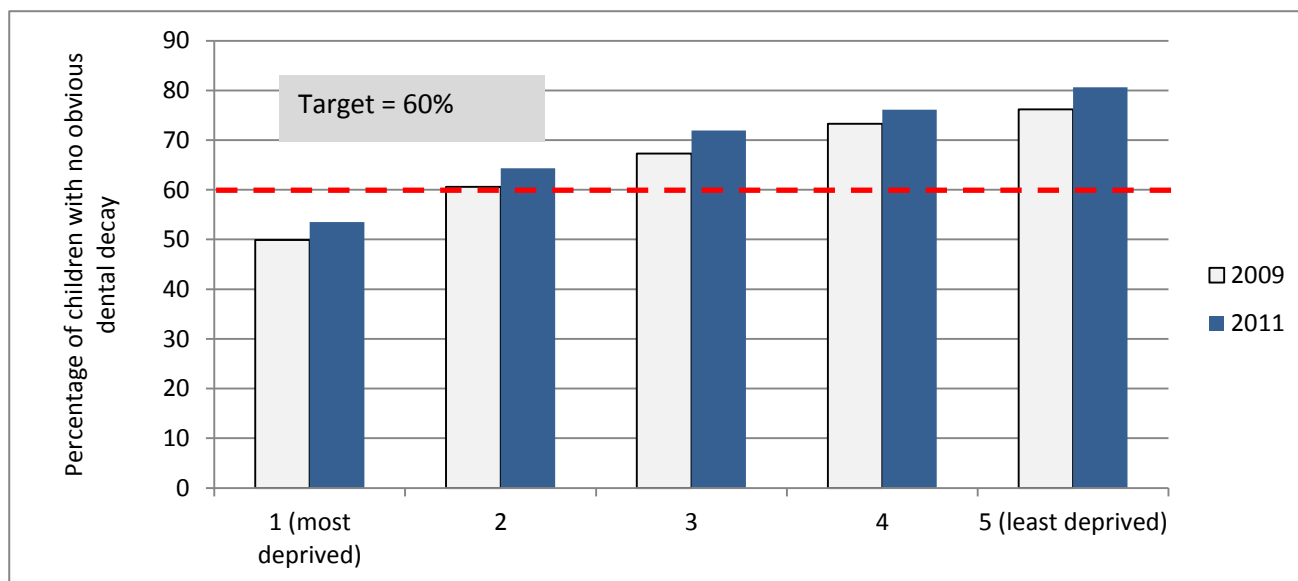
Source: Report of the National Dental Inspection Programme of Scotland, 2012

- Between 2009 and 2011, the percentage of 11 to 12-year-old children with no obvious dental decay experience increased in all deprivation categories but those in the most deprived areas did not meet the Scottish Government’s target ([Exhibit 18](#)).

**Exhibit 18**

**Percentage of 11 to 12-year-old children with no obvious dental decay, 2009 and 2011**

Children in the most deprived areas did not meet the Scottish Government's target.



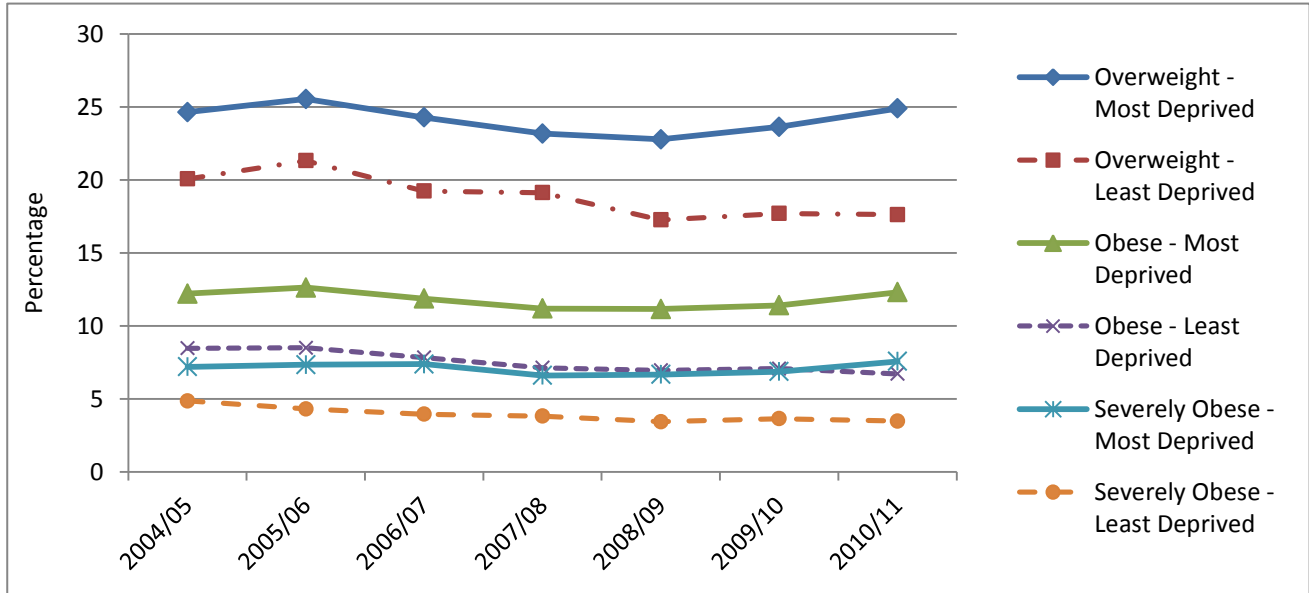
Source: Report of the National Dental Inspection Programme of Scotland, 2011

**Inequalities in the prevalence of child obesity are increasing**

- 43. Over 150,000 children in Scotland are classified as obese, although the proportion of healthy weight children has not changed significantly over the last decade. The percentages of both obese, and overweight and obese, five-year-old children in Scotland are similar to those in England.
- 44. Despite the overall prevalence of child obesity remaining relatively stable, the difference between the most deprived and least deprived areas has increased slightly in recent years. Compared with the least deprived areas, the percentages of overweight, obese and severely obese five-year-old children in the most deprived areas have all increased since 2008/09 (Exhibit 19).

**Exhibit 19****Percentage of overweight, obese and severely obese five-year-old children, 2004/05 to 2010/11**

Since 2008/09, the percentages of overweight, obese and severely obese children have increased in the most deprived areas.



Source: Information Services Division, 2012

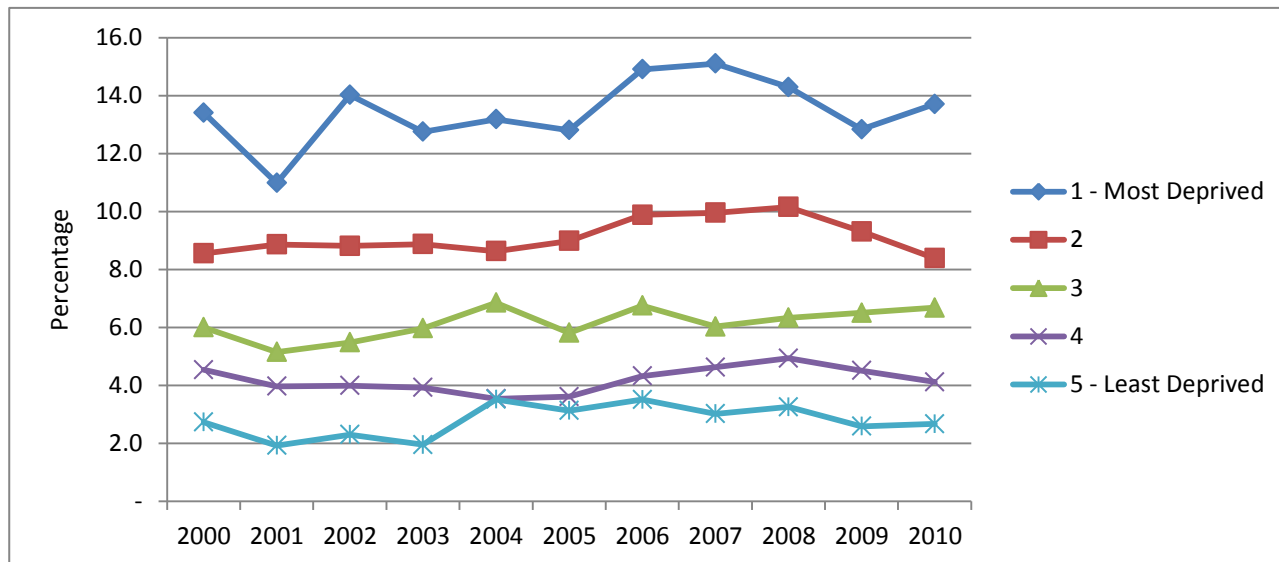
**Teenage pregnancy rates are higher in more deprived areas**

45. The pregnancy rate among under-16s in Scotland is similar to the rate in England and Wales but higher than in most other western European countries. The Scottish Government had a target to reduce the pregnancy rate among under-16s by 20 per cent from 8.5 per 1,000 in 1995 to 6.8 per 1,000 in 2010. The rate has decreased slightly in recent years but in 2010 it was 7.1 per 1,000, just missing the national target.
46. Deprivation level is also associated with the pregnancy rate among under-16s in Scotland, with around five times as many pregnancies in the most deprived areas compared with the least deprived areas in 2010 (Exhibit 20). This difference has remained relatively stable since 2000.

**Exhibit 20**

**Pregnancy rate among under-16s, 2000 to 2010**

The pregnancy rate among under-16s in the most deprived areas is around five times higher than in the least deprived areas.



Source: Audit Scotland analysis of Information Services Division, 2012

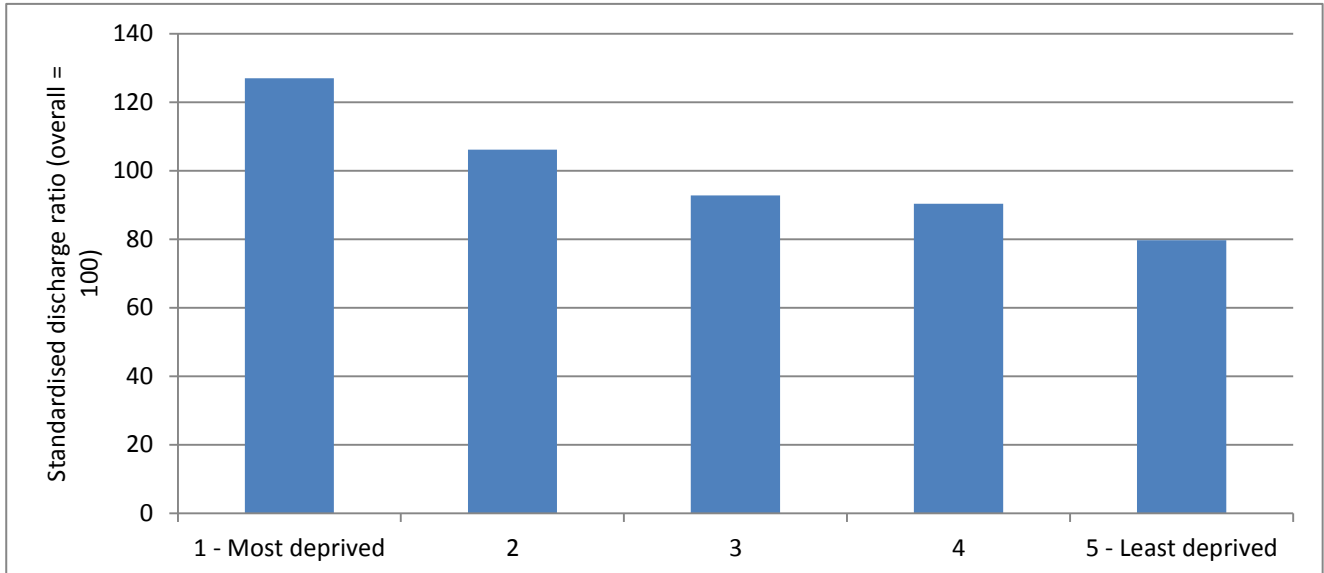
**Deprivation is associated with higher rates unintentional injuries among children**

47. In 2010/11, unintentional injuries accounted for approximately one in seven emergency hospital admissions for children. Admission rates were over 1.5 times higher in children living in deprived areas compared with those in the least deprived areas (Exhibit 21). Between 2006 and 2010, children in the most deprived areas were around twice as likely to die as a result of an unintentional injury compared to those in the least deprived areas.



**Exhibit 21****Emergency hospital admission rates following unintentional injury among children, by deprivation level, 2010/11**

Admission rates increase with deprivation level.



Source: Information Services Division, 2012

# Health inequalities in Scotland

## Extent of health inequalities: detailed analysis

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