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HEALTH AND SOCIAL CARE

Long-term Monitoring of Health Inequalities

December 2018 report

Summary

Introduction
This report presents a range of indicators selected in order to monitor health inequalities over time.

With the exception of the Healthy Birthweight indicator, significant health inequalities persist for each indicator covered in the report.

Changes in the gap between the most and least deprived areas in Scotland
In a number of indicators, absolute inequalities (the gap between the most and least deprived areas) have narrowed over the longer term:

- **Premature Mortality (under 75 years)** - the gap has reduced by 17% from its peak in 2002, and is currently lower than at the start of the time series in 1997.
- **CHD Mortality** - the gap has more than halved since its widest point in 1998.
- **Alcohol-Related Admissions** - the gap has reduced by 43% since the start of the time series in 1996.
- **Low Birthweight** – the gap has reduced by 25% since its peak in 2004. The bulk of this reduction had taken place by 2008, with the gap fluctuating since then.
- **Cancer Mortality** – the gap has reduced by 22% since its widest point in 1998.

The gap for **Alcohol-Related Deaths** is currently 30% lower than at its peak in 2002. However, following a period where the gap narrowed, it has been increasing since 2013, and is currently 10% higher than at the start of the time series in 1997.

The gap for **Limiting Long-Term Conditions** has reduced by 26% since its peak in 2014/2015 and is currently slightly higher than at the start of the time series in 2008/2009.

For the other indicators in the report, there has either been little change or long term trends in the absolute gap are less clear:

- **Mental Wellbeing**
- **Heart Attack Admissions**
- **Cancer Incidence**
- **All-Cause Mortality (aged 15-44 years)**
- **Healthy Birthweight**
- **Self-Assessed Health**

Relative inequalities
The relative index of inequality (RII) indicates the extent to which health outcomes are worse in the most deprived areas compared to the average throughout Scotland. It is possible for absolute inequalities to improve, but relative inequalities to worsen.

There are three **morbidity indicators** for which the RII can reasonably be compared with one another: alcohol-related hospital admissions; heart attack hospital admissions; and cancer incidence.

Amongst these, relative inequalities in alcohol-related hospital admissions have remained highest over the longer term. Relative inequalities in heart attack admissions have decreased in the last year but remain higher than at the start of the time series, and cancer incidence inequalities have remained relatively stable.

Amongst the three comparable **mortality indicators** (CHD deaths, alcohol-related deaths, and cancer deaths), relative inequalities in CHD mortality have increased over the long term. The relative inequalities in alcohol-related deaths have shown more year to year fluctuation over the same period, but ultimately the RII has increased by 10% since the start of the time series in 1997.

The RII for cancer mortality has increased slightly over the longer term. However, inequalities remain wider in alcohol-related deaths and coronary heart disease deaths.

Of the other indicators in the report, the two indicators relating to premature mortality (under 75 and aged 15-44) have both shown increases in RII over time.

Contents

Background

A Ministerial Task Force on Health Inequalities led by the Minister for Public Health was established in 2007 to identify and prioritise practical actions to reduce the most significant and widening health inequalities in Scotland. The Task Force recognised the need to monitor progress in tackling health inequalities in the longer term as well as managing short and medium term progress.

A technical advisory group was set up in early 2008 to advise the Task Force on long-term monitoring of health inequalities. The group recommended a range of indicators to be monitored over time, as reflected in this report.

The technical advisory group met most recently in 2015 to review the list of indicators and the methods used to report them.[1] The group now exists as a network who convene on request.

[1] The first Long-Term Monitoring of Health Inequalities report, including Technical Advisory Group Membership, is available here: http://scotland.gov.uk/Publications/2008/09/25154901/0

Indicators

The indicators monitored by this report series are:

Headline indicators of health inequalities

- Healthy Life Expectancy
- Premature Mortality from all causes (aged under 75 years)
- Mental Wellbeing of adults (aged 16+)

Indicators of inequalities in morbidity and mortality

- Coronary Heart Disease: first ever hospital admission for heart attack (aged under 75 years)
- Coronary Heart Disease: deaths (aged 45-74 years)
- Cancer: incidence (aged under 75 years)
- Cancer: deaths (aged 45-74 years)
- Alcohol: first hospital admissions (aged under 75 years)
- Alcohol-related deaths (aged 45-74 years)
- All-cause mortality (aged 15-44 years)
- Low birthweight
- Healthy birthweight
- Self-assessed health of adults (aged 16+)
- Limiting long-term conditions amongst adults (aged 16+)

This year's report does not include results for the Healthy Life Expectancy indicator, as these are produced every second year and were included in the previous report.

Tables showing the most up-to-date trends in relative and absolute inequalities for all indicators are published on the Scottish Government website.

Methods

The report uses a combination of measures of health inequalities to give a fuller understanding of the different aspects of inequalities. These are:

- Scale: How big is the problem? This measure describes the underlying scale of the problem, puts it into context and presents past trends at Scotland level.

- Relative Index of Inequality (RII): How steep is the inequalities gradient? This describes the gradient of health observed across the deprivation scale, relative to the mean health of the whole population. Unless explicitly explained, the RII indicates the extent to which health outcomes are better in the least deprived areas, or worse in the most deprived areas, compared to the mean.

- Absolute range: How big is the gap? This measure describes the absolute difference between the extremes of deprivation.

Following recommendations from the expert group, an area-based index derived from the income and employment domains of the Scottish Index of Multiple Deprivation (SIMD) is used to define deprivation. This reflects the absence of individual-level data on socio-economic circumstance.

The index is referred to as the Income and Employment Index (IEI).

These indicators and measures were recommended for long-term monitoring of deprivation-related health inequalities at Scotland level. Monitoring health inequalities due to other factors, such as age, gender and ethnicity, and indicators at a local level, may require different indicators and measures. Further information on the methods is provided in Annex 1.

Changes to indicators

The most recent meeting of the Technical Advisory Group in July 2015 focused on a number of areas for development in the report, in the short and longer term, and reviewed the list of indicators. A full record of the recommendations which will be developed for future reports is provided on the Health Inequalities pages of the Scottish Government website.

The most recently incorporated changes were the inclusion of two new 'morbidity indicators' relating to self-assessed general health and long-term conditions. These indicators are included every second year and are included in this publication.

Headline indicators of Health Inequalities

Premature Mortality (under 75 years)

In 2017, the gap in premature mortality rates between the most and least deprived areas reduced for the first time in three years and is lower than at the start of the time series in 1997. Relative inequalities, however, have widened over the long term.

In 1997, premature mortality rates were 3 times higher in the most deprived areas compared to the least deprived; in 2017, rates were 4 times higher in the most deprived areas.

Trends in premature mortality

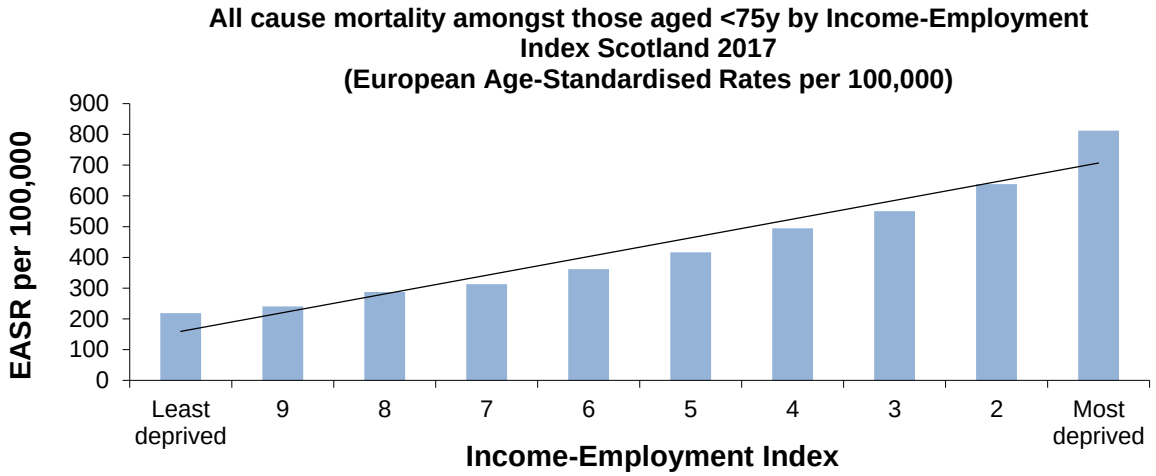
Around 21,000 people in Scotland died before the age of 75 in 2017.

Over the long term there has been a reduction in the mortality rate among under-75s. The age-standardised mortality rate among under-75s in 2017 was 425.2 per 100,000 people, a reduction of 35 per cent since 1997 (651.9 per 100,000).

Inequalities in premature mortality, 2017

In 2017, the premature mortality rate in the most deprived areas was 812.1 per 100,000, 4 times higher than the rate in the least deprived areas (218.9 per 100,000).

Figure 1.1



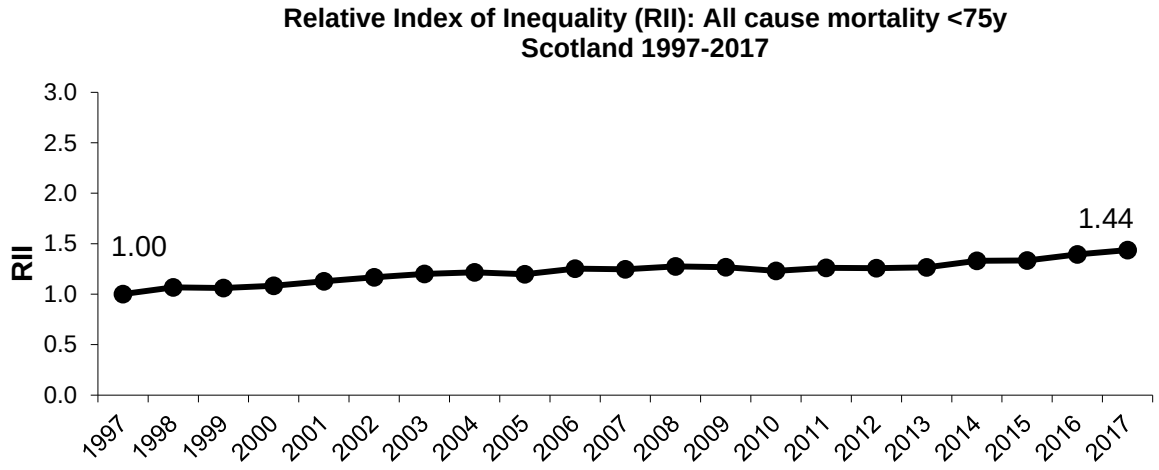
Trends in relative inequalities

Over the longer term, relative inequalities have increased. The RII for 2017 is the highest on record at 1.44, compared with 1.00 at the start of the time series in 1997.

Between 1997 and 2017, premature mortality rates declined by 43% in the least deprived areas, but by only 21% in the most deprived areas in Scotland.

In 1997, premature mortality rates were 3 times higher in the most deprived areas compared to the least deprived; in the last three years premature mortality rates have been 4 times higher in the most deprived areas.

Figure 1.2



Trends in absolute inequalities

Absolute inequalities in premature mortality reached a peak in 2002. Between 2002 and 2013 there was a general downward trend. Most notably, the absolute gap between the most and least deprived areas reduced every year between 2007 and 2013.

Since 2013 the gap has increased, although it is currently lower than at any point prior to 2010.

Figure 1.3

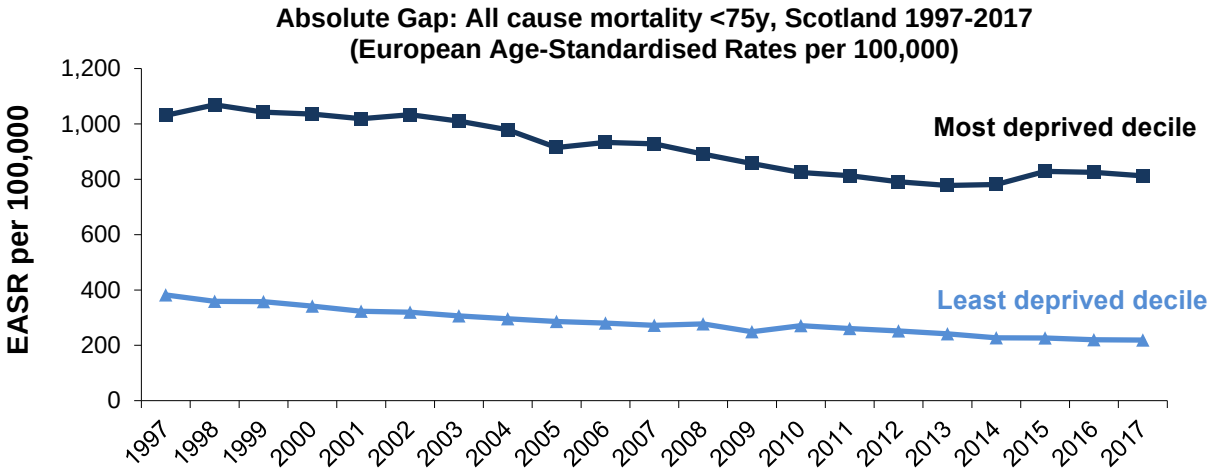


Table 1.1: Trends in premature mortality (under 75 years), 1997-2017

Year	Number of deaths	Target population size	Rate per 100,000 (EASR)
1997	26,081	4,740,269	651.9
1998	25,857	4,729,975	643.3
1999	25,491	4,721,298	632.5
2000	24,593	4,708,667	607.3
2001	24,168	4,703,661	593.1
2002	24,219	4,701,958	588.9
2003	23,789	4,702,431	573.4
2004	22,896	4,714,233	546.2
2005	22,441	4,735,320	530.3
2006	22,237	4,752,425	520.4
2007	22,359	4,783,452	516.8
2008	22,005	4,811,453	501.3
2009	21,229	4,835,007	477.0
2010	20,997	4,858,058	467.4
2011	20,685	4,888,316	456.1
2012	20,446	4,895,114	445.3
2013	20,344	4,903,074	437.5
2014	19,961	4,914,362	423.2
2015	20,988	4,935,283	440.5
2016	21,313	4,962,391	439.7
2017	20,992	4,976,829	425.2

Mental Wellbeing – adults aged 16+

The gap in mental wellbeing amongst adults living in the most deprived and least deprived areas has decreased over the last two time periods from 20.9 percentage points in 2012/2013 to 17.2 percentage points in 2016/2017, however, it remains higher than at the start of the time series (15.5 percentage points in 2008/2009).

Adults in the most deprived areas were three times more likely to have below average wellbeing than adults in the least deprived areas at all time periods except 2012/2013, when they were five time more likely to have below average wellbeing.

Trends in mental wellbeing

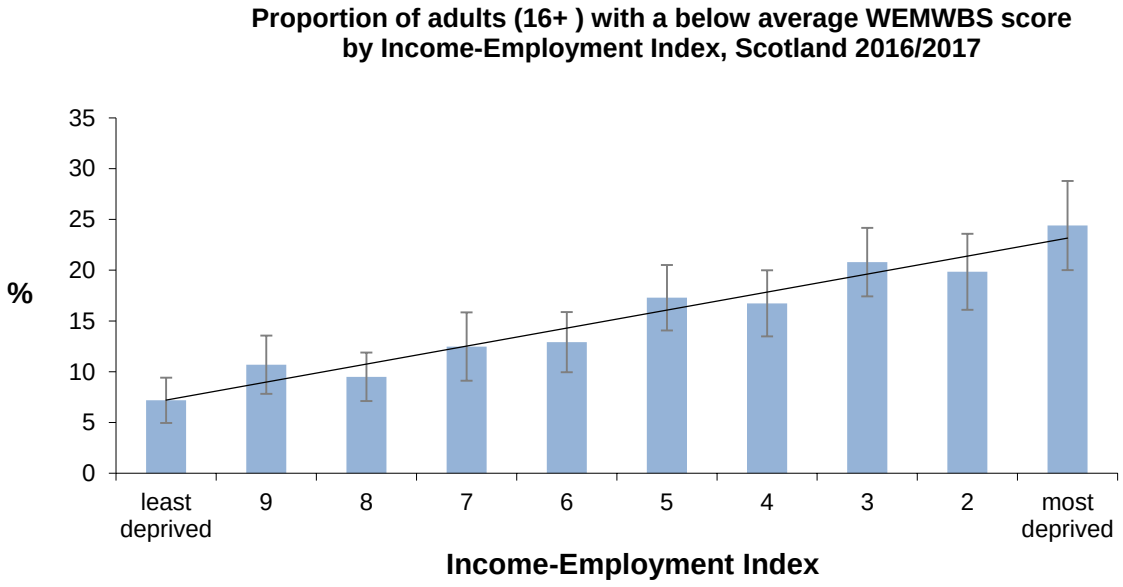
The mean score on the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) was fairly static between 2008/09 and 2016/17 ranging from 49.8-49.9.

'Below average' wellbeing has been defined as WEMWBS scores of at least one standard deviation below the mean, equivalent to scores of 41 or lower in all years. The proportion of adults in Scotland who have a below average WEMWBS score has remained at 15% since 2008/2009.

Inequalities in mental wellbeing, 2016/17

In 2016/17, 24% of adults in the most deprived areas had below average wellbeing, indicated by a WEMWBS score of 41 or lower. This compared to 7% of adults in the least deprived areas.

Figure 2.1

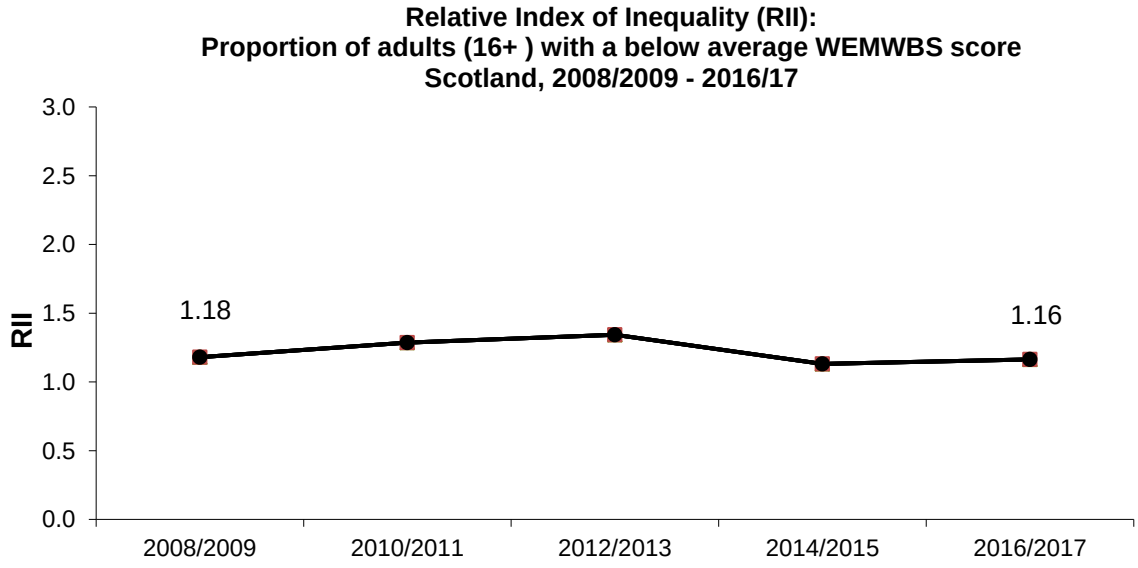


Trends in relative inequalities

The relative index of inequality (RII) in below average wellbeing increased slightly between 2014/2015 and 2016/2017 (from 1.13 to 1.16) but remained below the 2008/2009 figure of 1.18.

Adults in the most deprived areas were approximately 3 times more likely to have below average wellbeing compared to those in the least deprived areas at all time periods except 2012/2013, when they were 5 times more likely to have below average wellbeing.

Figure 2.2



Trends in absolute inequalities

The gap in prevalence of below average wellbeing between those in the most and least deprived areas increased until 2012/2013 before decreasing over the last two time periods. However, the gap in 2016/2017 (17.2 percentage points) is higher than at the start of the time series (15.5 percentage points in 2008/2009).

Figure 2.3

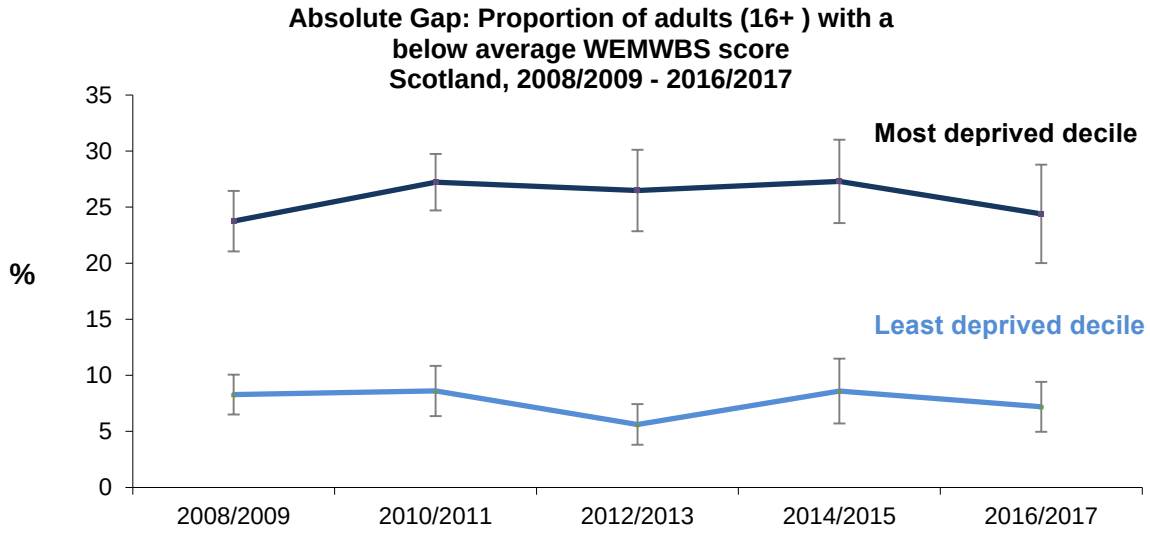


Table 2.1: Trends in mental wellbeing, 2008/2009-2016/2017

	Mean WEMWBS			Below average wellbeing (indicated by a WEMWBS score of 41 or lower)		
Year	**Mean WEMWBS score**	**Lower 95% confidence limit**	**Upper 95% confidence limit**	**Proportion of adults with below average wellbeing (%)**	**Lower 95% confidence limit (%)**	**Upper 95% confidence limit (%)**
2008/2009	49.8	49.6	50.0	14.8	14.1	15.6
2010/2011	49.9	49.7	50.1	15.0	14.2	15.8
2012/2013	49.9	49.7	50.2	14.9	13.9	15.8
2014/2015	49.9	49.7	50.2	14.7	13.7	15.7
2016/2017	49.8	49.6	50.1	15.1	14.1	16.2

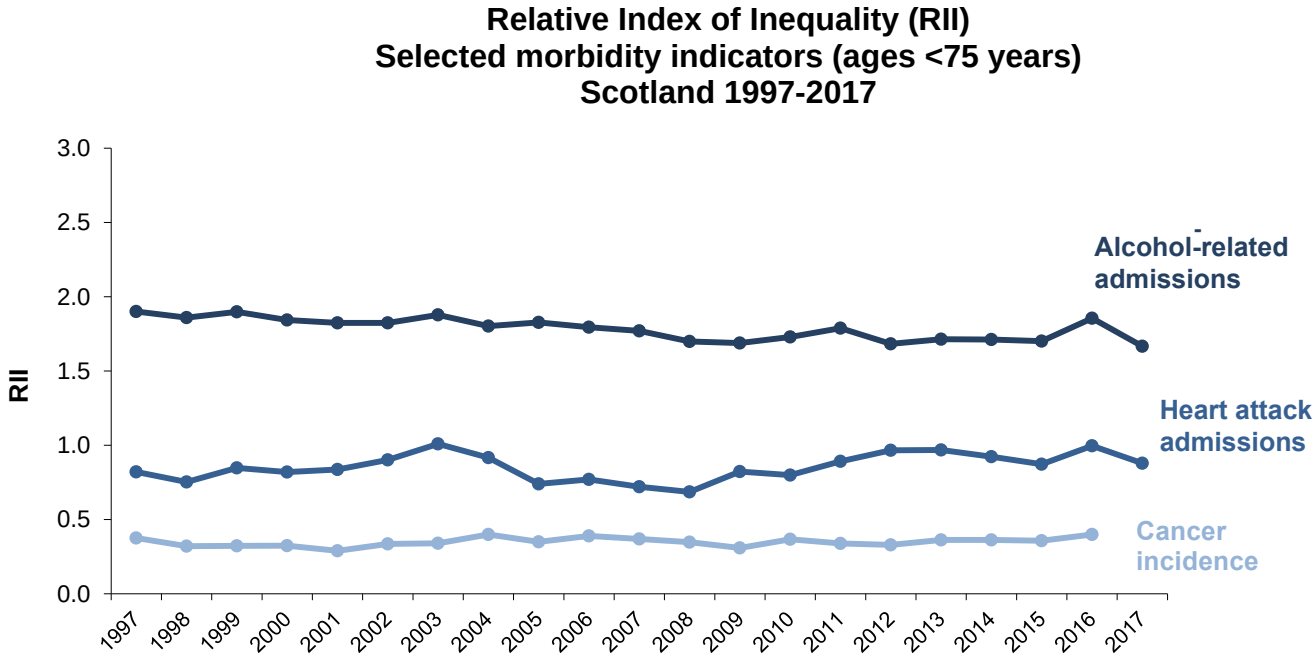
Inequalities in morbidity and mortality indicators

The relative index of inequality (RII) indicates the extent to which health outcomes are worse in the most deprived areas compared to the average throughout Scotland. While comparisons of RII between indicators are possible, they should be made with some caution, in particular where absolute values are significantly higher or lower in the compared indicators or where the measurement scale differs (for example, relative inequalities in Mental Wellbeing scores, which are based on responses to survey questions, compared to relative inequalities in an age-standardised mortality rate).

The following charts group indicators in this report into broadly comparable categories: the first shows hospital admissions and incidence of conditions for people belonging to the under 75 age group; while the second shows mortality rates in the 45-74 age group for three causes of death.

Although relative inequalities in heart attack hospital admissions have increased in recent years, inequalities have remained highest in alcohol-related admissions throughout the period covered by this report. Inequalities in cancer incidence have remained relatively stable.

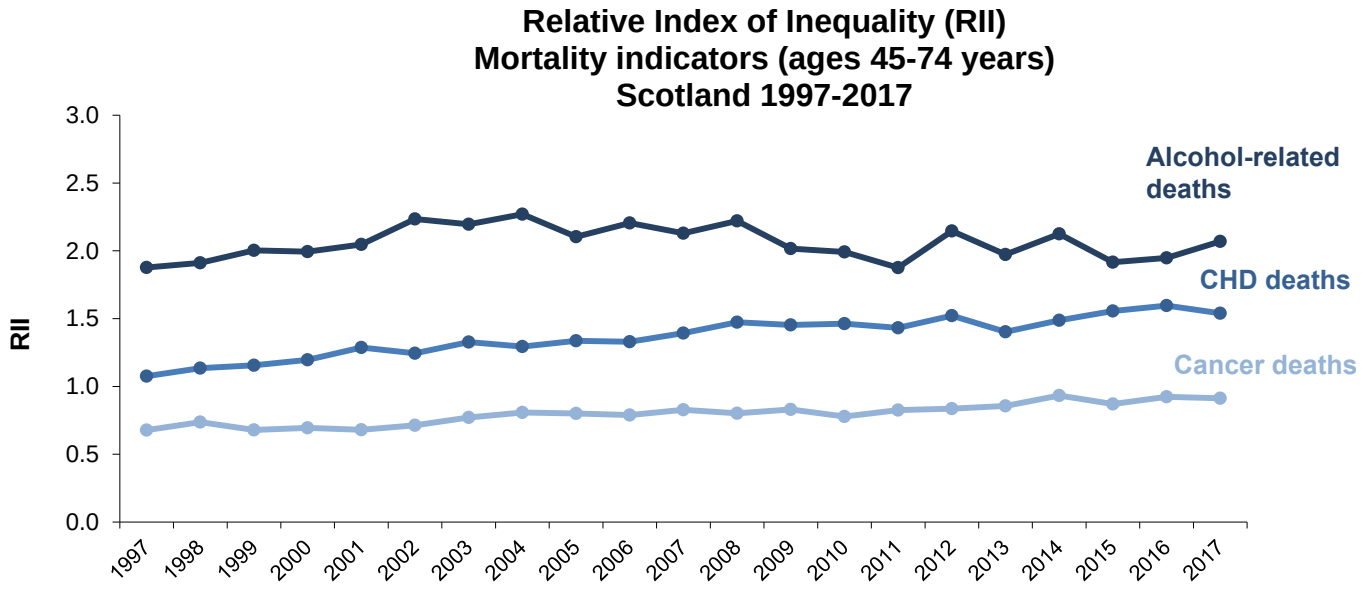
Figure 3.1



Relative inequalities in CHD mortality among adults aged 45-74 have increased over the long term. Relative inequalities for alcohol-related deaths have shown more year to year fluctuation over the same period, and are currently higher than at the start of the time series (2.07 vs 1.88).

Although RII in cancer mortality has increased slightly over the longer term, inequalities remain widest in alcohol-related deaths and coronary heart disease deaths.

Figure 3.2



Coronary Heart Disease - first ever hospital admission for heart attack aged under 75 years

Trends in heart attack hospital admissions

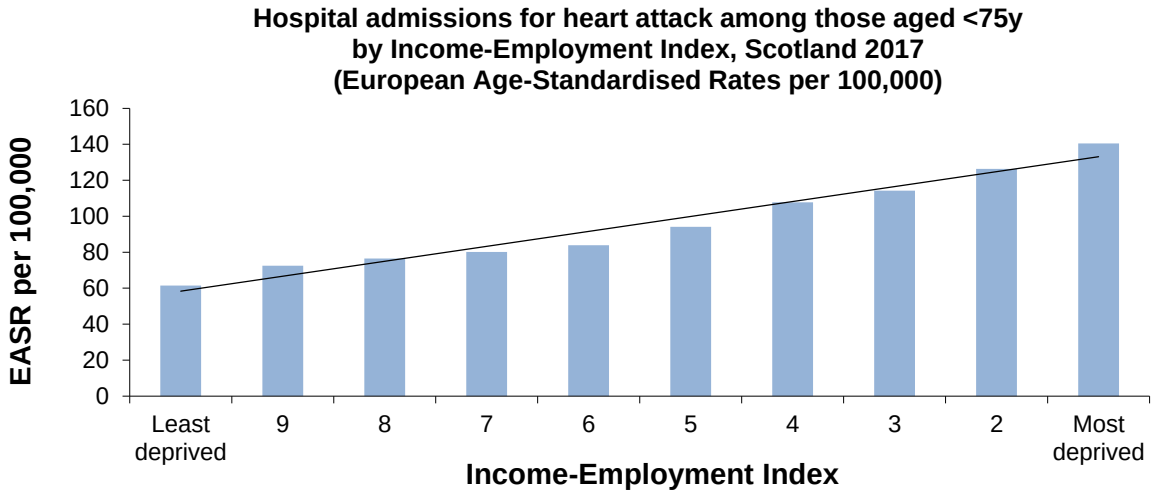
In 2017, around 4,700 new cases of heart attack (for those aged under 75 years) were recorded in Scottish hospitals.

The rate of admissions is currently 35% lower than in 1997. There were significant increases in the rate of hospital admissions between 2007 and 2012 and while they then fell year on year until 2016 there has been an increase in 2017. The rate of admissions is currently higher than the low point seen in 2007.

Inequalities in hospital heart attack hospital admissions, 2017

In 2017, the admission rate in Scotland's most deprived areas was 2 times greater than that of the least deprived (140.5 cases per 100,000 compared to 61.5 per 100,000).

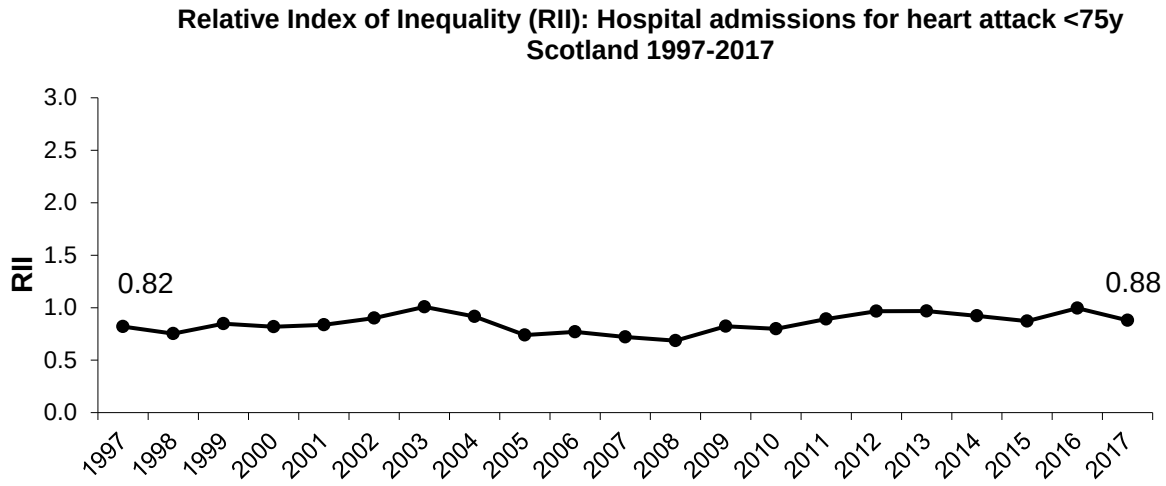
Figure 4.1



Trends in relative inequalities

Relative inequality levels for heart attack hospital admissions have fluctuated over time, ranging from 0.69-1.01. The RII for 2017 (0.88) is higher than that at the start of the time series (0.82).

Figure 4.2



Heart attack hospital admission rates (aged <75) have generally been 2-3 times higher in the most deprived areas compared to the least deprived areas. In 2017, rates were 2 times higher in the most deprived areas than in the least deprived.

Trends in absolute inequalities

The absolute gap in hospital admissions between those living in the most deprived areas and the least deprived areas decreased between 2016 and 2017 (from 90.5 per 100,000 to 79 per 100,000) and is currently lower than at the start of the time series in 1997 when the gap was at its largest (114.6 per 100,000).

However, absolute inequalities have fluctuated over that time, with the gap at its narrowest between 2006 and 2008.

Figure 4.3

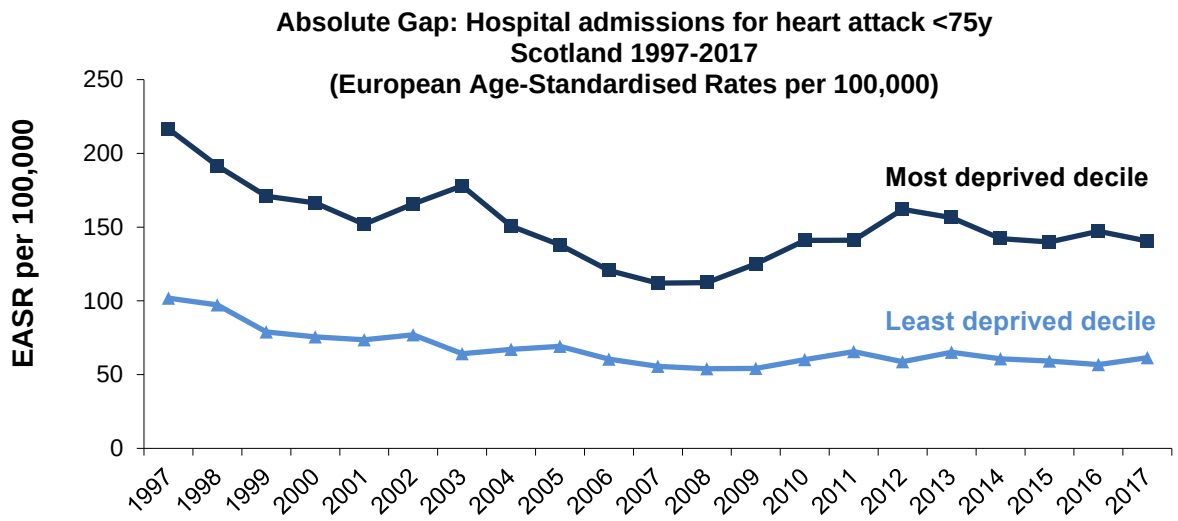


Table 4.1: Trends in heart attack hospital admissions (aged <75), 1997-2017

	Total admissions	Population	Rate per 100,000 (EASR)
1997	5,764	4,740,269	145.1
1998	5,676	4,729,975	141.5
1999	5,101	4,721,298	126.6
2000	4,812	4,708,667	118.4
2001	4,776	4,703,661	116.9
2002	4,833	4,701,958	116.6
2003	4,569	4,702,431	109.0
2004	4,413	4,714,233	103.9
2005	4,047	4,735,320	94.2
2006	3,750	4,752,425	86.4
2007	3,549	4,783,452	80.4
2008	3,655	4,811,453	81.7
2009	3,851	4,835,007	84.9
2010	4,377	4,858,058	95.4
2011	4,537	4,888,316	97.7
2012	4,747	4,895,114	100.8
2013	4,697	4,903,074	98.8
2014	4,503	4,914,362	93.4
2015	4,521	4,935,283	92.8
2016	4,521	4,962,391	91.5
2017	4,738	4,976,829	94.8

Coronary Heart Disease (CHD) Mortality - deaths aged 45-74 years

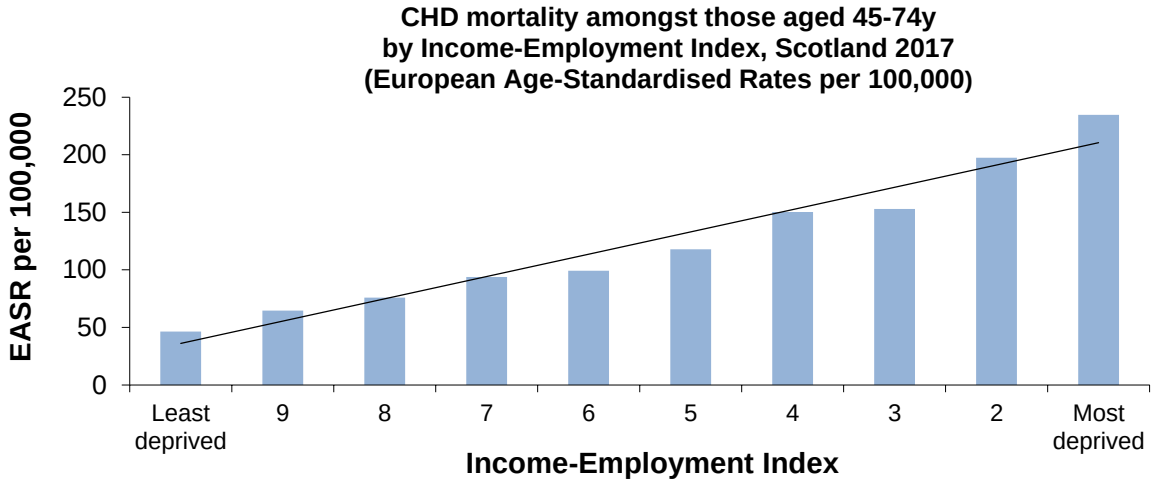
Trends in CHD deaths

Since 1997, there has been a considerable decrease in CHD mortality amongst the population aged 45-74 years. At 122.2 per 100,000, the death rate for this age group is one third what it was in 1997. However, CHD remains one of Scotland's biggest causes of premature mortality, and accounted for around 2,500 deaths amongst those aged 45-74 years in 2017.

Inequalities in CHD deaths, 2017

In 2017, the CHD mortality rate was 5 times greater in Scotland's most deprived areas compared to the least deprived (234.7 compared to 46.4 deaths per 100,000 population).

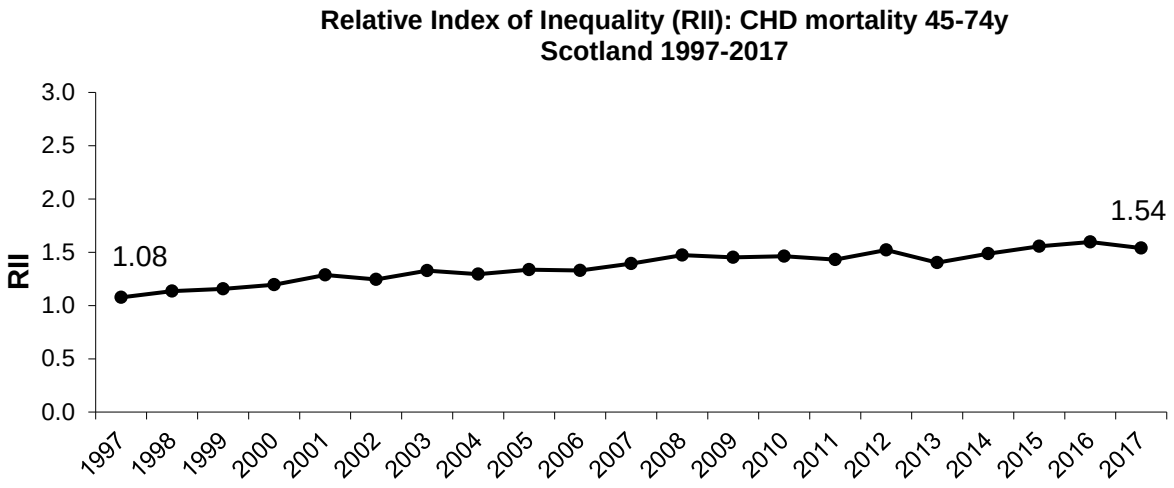
Figure 5.1



Trends in relative inequalities

Relative inequalities in CHD mortality have grown over the longer term. In particular, there was steady growth between 1997 and 2008. RII was at its highest point in the time series in 2016 (1.60) and fell slightly to 1.54 in 2017.

Figure 5.2



Since 1997, CHD mortality rates have typically been 3-4 times higher in the most deprived areas compared to the least deprived areas. In the last four years, rates were 5 times higher in deprived areas.

Trends in absolute inequalities

In contrast to relative inequality, absolute inequality between those living in the most deprived areas and those living in the least deprived areas has reduced over the longer term from a high of 390.1 per 100,000 in 1998. The current gap is less than half what it was in 1998 (188.3 per 100,000 in 2017).

Figure 5.3

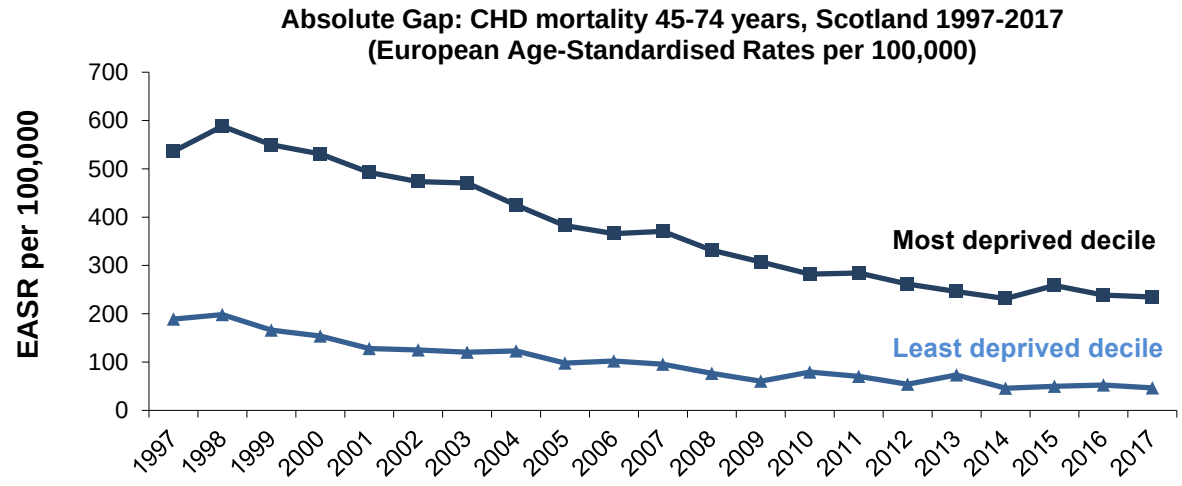


Table 5.1: Trends in coronary heart disease deaths (aged 45-74), 1997-2017

	Number of deaths	Target population size	Rate per 100,000 (EASR)
1997	5,887	1,635,590	372.5
1998	5,675	1,646,711	357.9
1999	5,389	1,658,124	338.9
2000	4,858	1,670,660	303.9
2001	4,483	1,687,422	279.3
2002	4,310	1,706,141	265.9
2003	4,197	1,727,112	256.3
2004	3,840	1,751,037	232.3
2005	3,721	1,774,865	222.3
2006	3,393	1,799,382	200.8
2007	3,374	1,827,320	196.6
2008	3,155	1,856,874	180.9
2009	2,857	1,885,693	160.7
2010	2,811	1,914,226	156.6
2011	2,592	1,941,253	142.6
2012	2,584	1,964,203	139.7
2013	2,515	1,986,202	133.7
2014	2,358	2,007,988	123.1
2015	2,463	2,026,210	127.4
2016	2,467	2,047,858	124.7
2017	2,476	2,064,612	122.2

Cancer - incidence rate aged under 75 years

Trends in cancer incidence

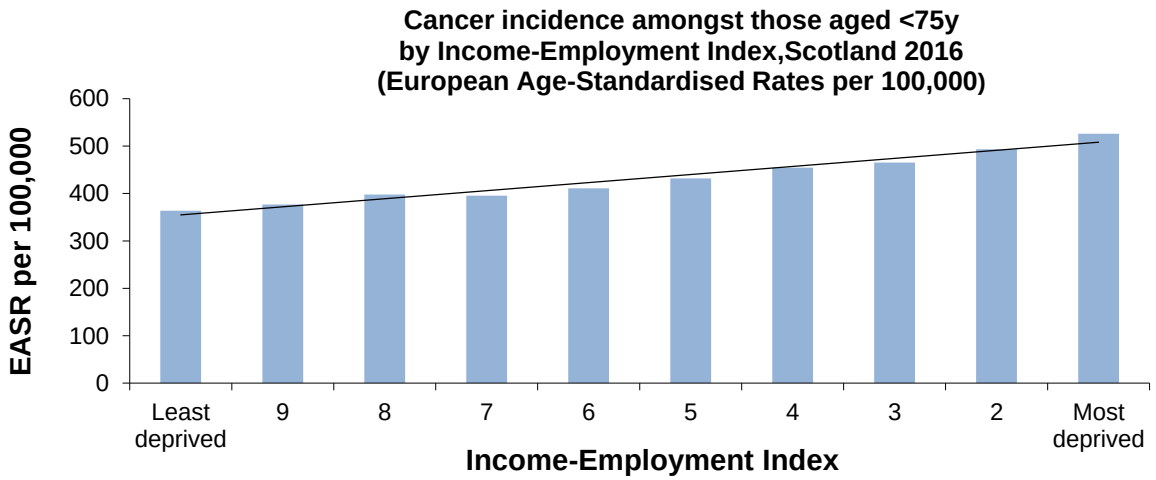
In 2016, there were around 21,000 new cases of cancer among people aged under 75.

Cancer incidence among people aged under 75 has fluctuated over the time series. It showed a general decrease from a high of 452.7 per 100,000 in 1996 to 418.0 per 100,000 in 2001, before showing an overall increase until 2009 (446.6 per 100,000). Since then cancer incidence has decreased overall and was 429.2 per 100,000 in 2016.

Inequalities in cancer incidence, 2016

In 2016, there were 526.2 cases of cancer per 100,000 people in the most deprived areas, compared to 363.8 cases per 100,000 in the least deprived areas.

Figure 6.1



Cancer incidence is more common in the most deprived areas of Scotland. However, this is not the case for all types of cancer.[2] This is driven in part by variations in screening uptake, leading to socially patterned rises in cancer incidence and, in turn, cancer survival for some types of cancer in the least deprived areas.

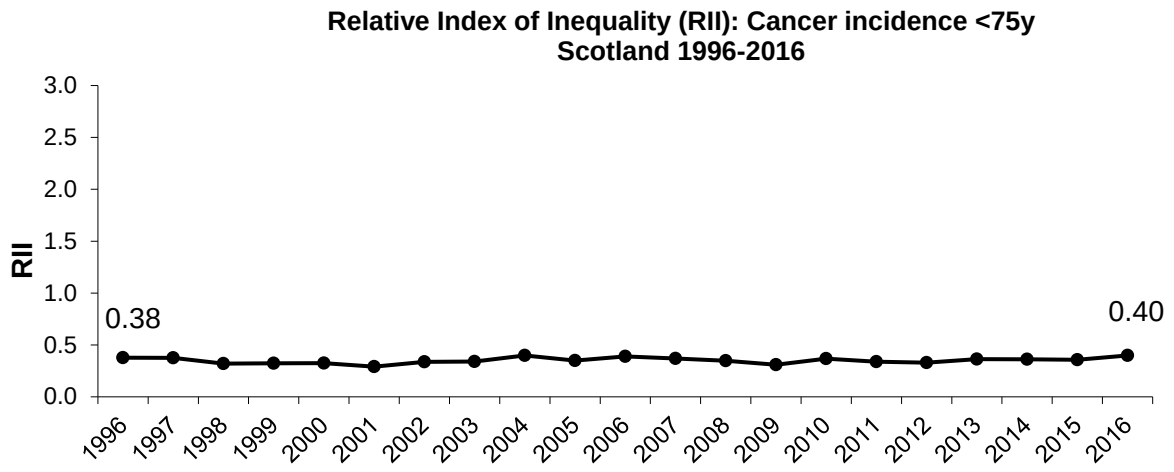
As has been the case previously, of the most common types of cancer, the absolute gap between most and least deprived areas was largest for cancer of the trachea, bronchus and lung (2016 rates were 118.3 and 29.6 per 100,000 population in the most and least deprived areas respectively).

[2] Web tables accompanying this publication include incidence inequality data for prostate cancer, breast cancer, cancer of the trachea, bronchus and lung, and colorectal cancer.

Trends in relative inequalities

Changes in the relative index of inequality over time have been minimal and show no clear pattern, fluctuating between 0.29 and 0.40.

Figure 6.2

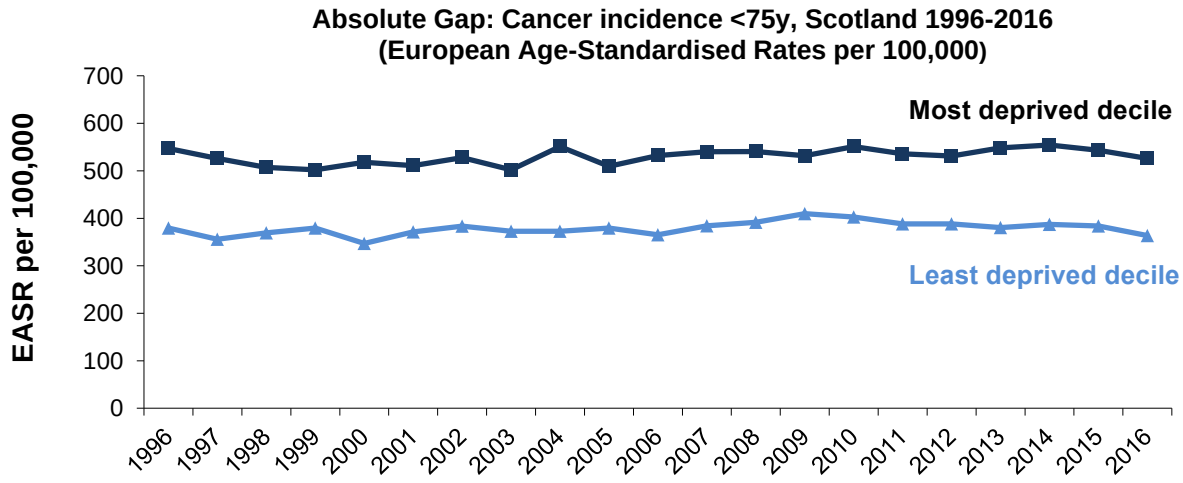


Incidence rates have typically been 30-50% higher in the most deprived areas in Scotland compared to the least deprived (45% in 2016).

Trends in absolute inequalities

Absolute inequality levels in cancer incidence have fluctuated over time. Rates in both the least and most deprived areas of Scotland have shown no clear pattern.

Figure 6.3



The gap was widest in 2004 (rates of 551.1 per 100,000 and 372.9 per 100,000 in the most and least deprived areas, respectively) but the adjacent years of 2003 and 2005 displayed relatively narrow gaps. The gap was lower in 2017 (162.4 per 100,000) than at the start of the time series (167.7 per 100,000).

Table 6.1: Trends in cancer incidence (aged < 75), 1996-2016

	Number of new cases	Target population size	Rate per 100,000 (EASR)
1996	18,128	4,754,906	452.7
1997	17,167	4,740,269	427.4
1998	17,109	4,729,975	424.3
1999	16,914	4,721,298	417.5
2000	17,138	4,708,667	420.6
2001	17,147	4,703,661	418.9
2002	17,530	4,701,958	423.6
2003	17,574	4,702,431	420.8
2004	18,159	4,714,233	430.3
2005	17,987	4,735,320	421.9
2006	18,167	4,752,425	423.3
2007	18,775	4,783,452	430.8
2008	19,449	4,811,453	439.7
2009	19,999	4,835,007	446.6
2010	20,015	4,858,058	441.9
2011	20,208	4,888,316	441.3
2012	20,296	4,895,114	436.8
2013	20,598	4,903,074	437.7
2014	21,064	4,914,362	442.4
2015	20,888	4,935,283	433.5
2016	20,980	4,962,391	429.2

Cancer - deaths aged 45-74 years

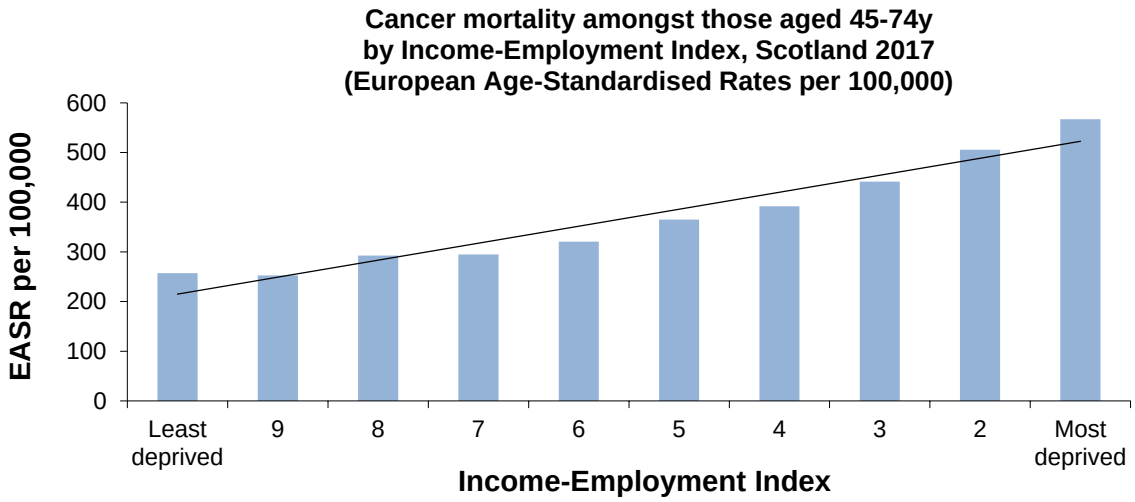
Trends in cancer deaths

The cancer mortality rate amongst those aged 45-74 years has fallen by more than 31% since 1996 (from 529.8 to 363.6 per 100,000 population in 2017). The number of deaths each year has also reduced in this period, from around 8,400 to 7,300.

Inequalities in cancer deaths, 2017

Of people in the 45-74 year age group, those in Scotland's most deprived areas are more than twice as likely to die of cancer than those in the least deprived (567.1 deaths per 100,000 population compared to 257.1 per 100,000 population, in 2017).

Figure 7.1



As is the case for cancer incidence, inequality levels vary when examining deaths by cancer type[3]. As described in the previous section, variations in screening uptake may lead to socially patterned rises in cancer incidence and, in turn, cancer survival (therefore having a possible effect on mortality) for some types of cancer.

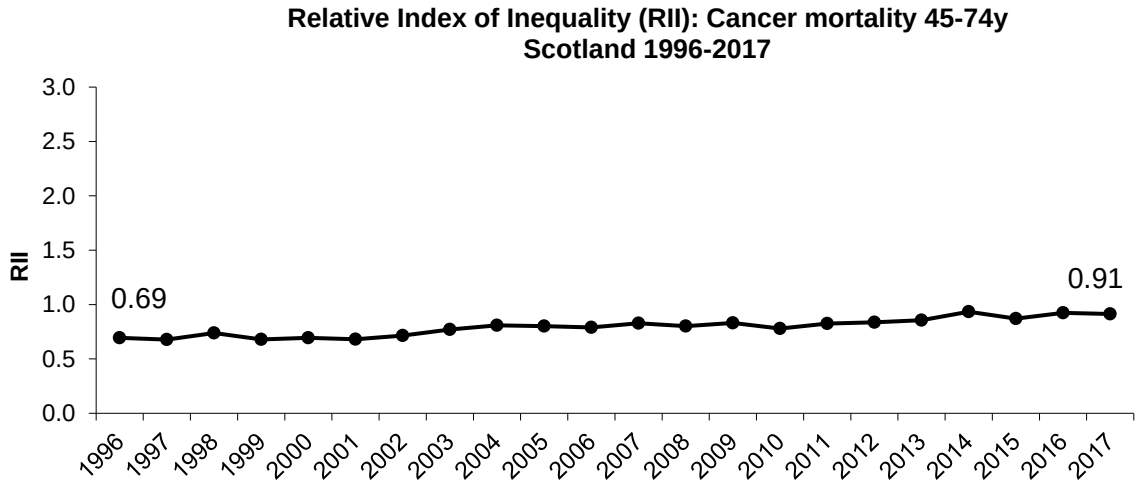
The largest differences between rates in the most and least deprived areas are again observed for cancer of the trachea, bronchus and lung (201.4 compared to 53.5 per 100,000 population).

[3] Web tables accompanying this publication include mortality inequality data for prostate cancer, breast cancer, cancer of the trachea, bronchus and lung, and colorectal cancer.

Trends in relative inequalities

Relative inequalities for this indicator have increased over time with the five highest values in the time series coming in the last five years. The latest RII figure (0.91) compares with a range of 0.68-0.81 seen in the years between 1996 and 2006.

Figure 7.2



Cancer mortality rates (aged 45-74) have been twice as high in the most deprived areas compared to least deprived areas over the time series.

Trends in absolute inequalities

Levels of absolute inequality for cancer deaths have fluctuated since 1996. The gap in 2017 was the second narrowest on record, behind 2010, with an absolute gap of 310.0 per 100,000 (304.8 per 100,000 in 2010).

Figure 7.3

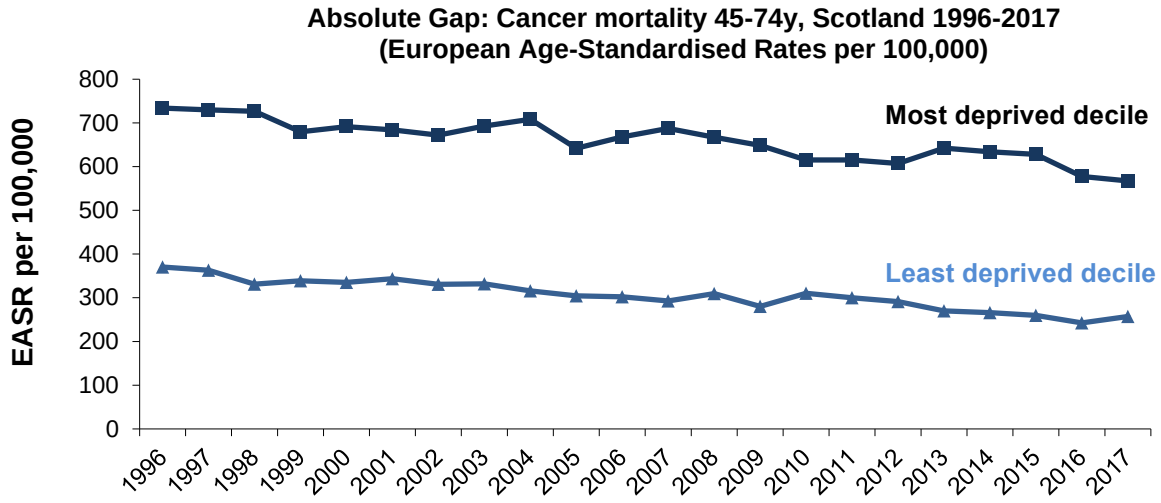


Table 7.1: Trends in cancer mortality (aged 45-74), 1996-2017

	Number of deaths	Target population size	Rate per 100,000 (EASR)
1996	8,402	1,631,224	529.8
1997	8,068	1,635,590	509.1
1998	7,995	1,646,711	501.9
1999	7,904	1,658,124	494.4
2000	7,776	1,670,660	484.8
2001	7,903	1,687,422	489.2
2002	7,850	1,706,141	481.2
2003	7,706	1,727,112	467.4
2004	7,678	1,751,037	460.9
2005	7,606	1,774,865	451.8
2006	7,486	1,799,382	441.3
2007	7,569	1,827,320	439.5
2008	7,536	1,856,874	431.0
2009	7,481	1,885,693	421.2
2010	7,394	1,914,226	411.1
2011	7,428	1,941,253	408.5
2012	7,514	1,964,203	406.2
2013	7,520	1,986,202	399.8
2014	7,445	2,007,988	389.6
2015	7,621	2,026,210	392.9
2016	7,385	2,047,858	373.5
2017	7,342	2,064,612	363.6

Alcohol - first hospital admission aged under 75 years

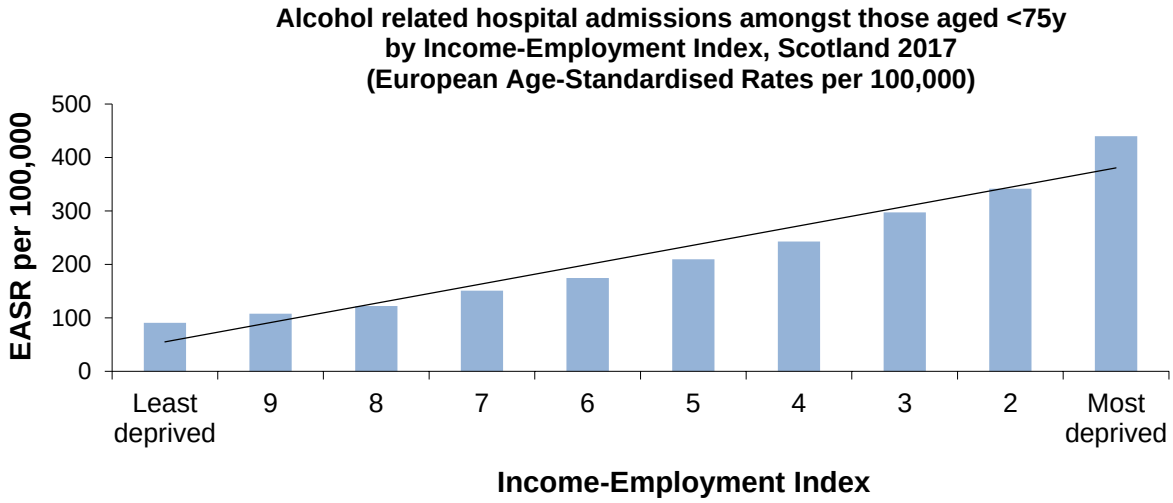
Trends in alcohol-related admissions

The hospital admission rate for alcohol-related conditions amongst those aged under 75 years has fallen over time, with a 25% decrease between 1996 and 2017 (289.8 and 217.8 cases per 100,000 respectively).

Inequalities in alcohol-related admissions, 2017

Alcohol-related admissions are 5 times more common in the most deprived areas of Scotland compared to the least (439.8 compared to 90.9 cases per 100,000).

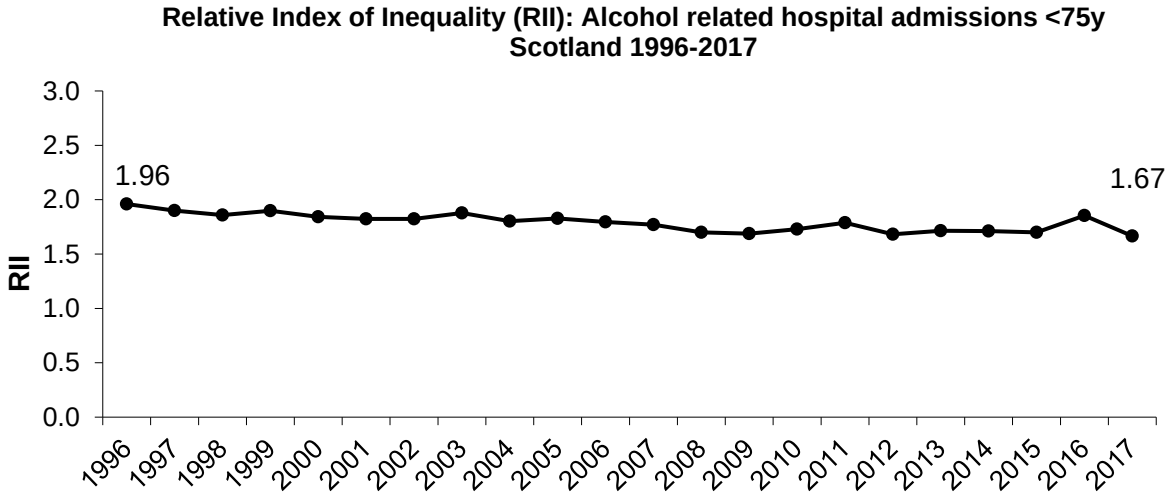
Figure 8.1



Trends in relative inequalities

A general downward trend was observed in relative inequalities for alcohol-related admissions between 1996 and 2009 (RII declining from 1.96 to 1.69). There followed a period of relatively little overall change until 2016 when the figure (1.85) increased to its highest rate since 2003. This figure then fell to 1.67 in 2017.

Figure 8.2



In 1996, alcohol-related admission rates were 7 times higher in the most deprived areas compared to the least deprived. For the past eleven years rates were around 5 times higher in the most deprived areas compared to the least deprived areas, with the exception of 2016 when they were 6 times higher.

Trends in absolute inequalities

Absolute inequality in alcohol-related admissions has generally reduced over time, due to a reduction in admissions in the most deprived areas. In 2017 the gap was 348.9 per 100,000 compared to 613.0 per 100,000 in 1996.

Figure 8.3

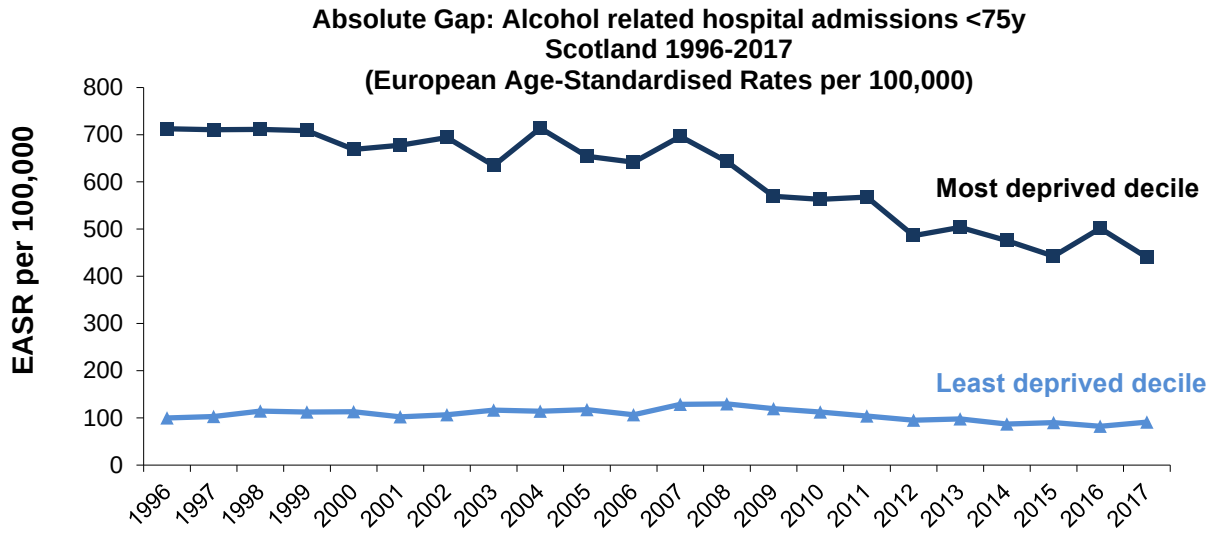


Table 8.1: Trends in alcohol-related hospital admissions (aged < 75), 1996-2017

	Number of admissions	Target population size	Rate per 100,000 (EASR)
1996	12,787	4,754,906	289.8
1997	12,918	4,740,269	292.6
1998	13,316	4,729,975	300.7
1999	13,217	4,721,298	298.2
2000	12,786	4,708,667	286.6
2001	13,469	4,703,661	300.3
2002	13,492	4,701,958	299.9
2003	12,996	4,702,431	290.0
2004	14,084	4,714,233	312.5
2005	13,346	4,735,320	293.8
2006	13,595	4,752,425	295.3
2007	14,641	4,783,452	313.5
2008	14,222	4,811,453	302.3
2009	12,891	4,835,007	272.9
2010	12,307	4,858,058	258.7
2011	12,264	4,888,316	256.2
2012	11,556	4,895,114	240.9
2013	11,225	4,903,074	236.8
2014	10,775	4,914,362	223.4
2015	10,467	4,935,283	216.2
2016	10,762	4,962,391	219.3
2017	10,630	4,976,829	217.8

Alcohol - deaths aged 45-74 years

Trends in alcohol-related deaths

The alcohol-related death rate among those aged 45-74 years has fluctuated over the time series. There was an overall increase between 1997 and 2006 (increasing from 81.1 per 100,000 to 106.7 per 100,000) followed by a downward trend until 2013 (73.0 per 100,000) when figures rose once more. There has, however, been a slight decrease between 2016 and 2017 (90.0 per 100,000 to 85.8 per 100,000).

Inequalities in alcohol-related deaths, 2017

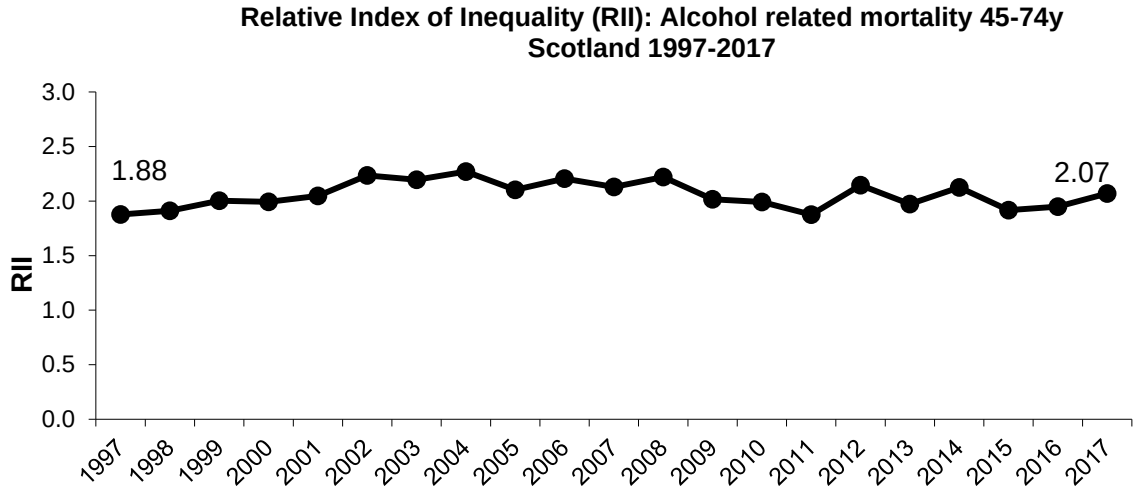
The mortality rate in Scotland's most deprived areas is 8 times higher than that observed in the least deprived areas (228.3 compared to 28.9 per 100,000 population).

Figure 9.1

Trends in relative inequalities

Relative inequalities in alcohol related deaths have fluctuated over the last two decades with an overall increase between 1997 and 2002 (RII increasing from 1.88 to 2.23) and a general downward trend between 2004 and 2011 (RII decreasing from 2.27 to 1.88). Following recent fluctuations, relative inequalities are higher than at the start of the time series in 1997 (1.88 vs 2.07).

Figure 9.2



Over time the relative range between the most and least deprived areas has fluctuated, peaking in 2002 when death rates were more than twelve times higher in the most deprived areas. In 2017, death rates were eight times higher in the most deprived areas.

Trends in absolute inequalities

Although alcohol-related deaths in the least deprived areas have remained reasonably static since 1997, there has been considerable fluctuation in deaths in the most deprived areas. This has largely driven fluctuations in the absolute gap.

Following notable highs in 2002 and 2006 (285.1 and 267.8 per 100,000 respectively), and a recent low in 2013 (146.9 per 100,000), the alcohol related mortality rate in the most deprived areas was 199.4 per 100,000, higher than at the start of the time series (181.8 per 100,000 in 1997).

Figure 9.3

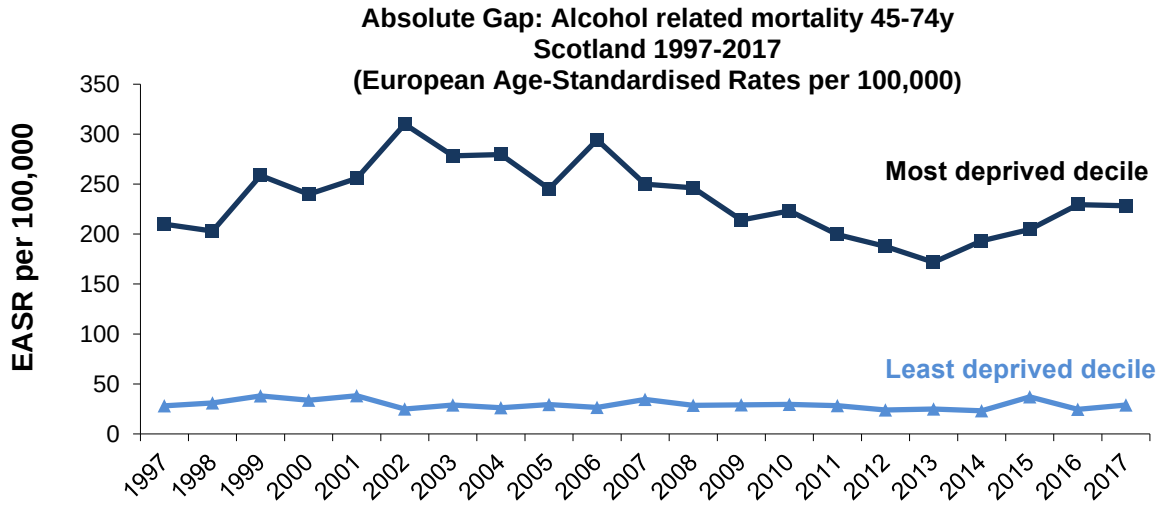


Table 9.1: Trends in alcohol-related deaths (aged 45-74), 1997-2017

	Number of deaths	Target population size	Rate per 100,000 (EASR)
1997	1,318	1,635,590	81.1
1998	1,415	1,646,711	86.4
1999	1,508	1,658,124	91.5
2000	1,489	1,670,660	89.8
2001	1,565	1,687,422	93.5
2002	1,753	1,706,141	103.5
2003	1,749	1,727,112	102.1
2004	1,764	1,751,037	101.5
2005	1,790	1,774,865	101.6
2006	1,899	1,799,382	106.7
2007	1,801	1,827,320	99.5
2008	1,782	1,856,874	97.0
2009	1,611	1,885,693	86.4
2010	1,674	1,914,226	88.5
2011	1,571	1,941,253	82.4
2012	1,441	1,964,203	74.3
2013	1,435	1,986,202	73.0
2014	1,510	2,007,988	76.0
2015	1,665	2,026,210	83.2
2016	1,831	2,047,858	90.0
2017	1,763	2,064,612	85.8

All-cause mortality aged 15-44 years

Trends in all-cause mortality aged 15-44

The mortality rate of those aged 15-44 was lower in 2017 than at the start of the time series in 1997.

Having reduced each year between 2011 and 2014 to 96.8 per 100,000, the lowest figure in the time series, the rate increased in 2015 and 2016 before falling slightly in 2017 to 107.1 per 100,000 population.

There were a total of 2,068 deaths of people aged 15-44 in Scotland in 2017, compared with the peak of 2,566 in 2002.

The deaths in 2017 included 305 probable suicides, 581 drug-related deaths and 40 deaths from assault. While the rates of probable suicide in this age group have generally declined in recent years, drug-related deaths have increased since 1997. In 2017, the drug-related death rate was 30.07 per 100,000, this compares with only 8.91 per 100,000 in 1997. Rates of death from assault have been increasing since 2014 but remain below the 1997 figure of 2.61 per 100,000.

Inequalities in all-cause mortality aged 15-44, 2017

The mortality rate amongst people aged 15-44 years is 7 times higher in the most deprived areas (249.7 per 100,000) compared to the least deprived (38.0 per 100,000).

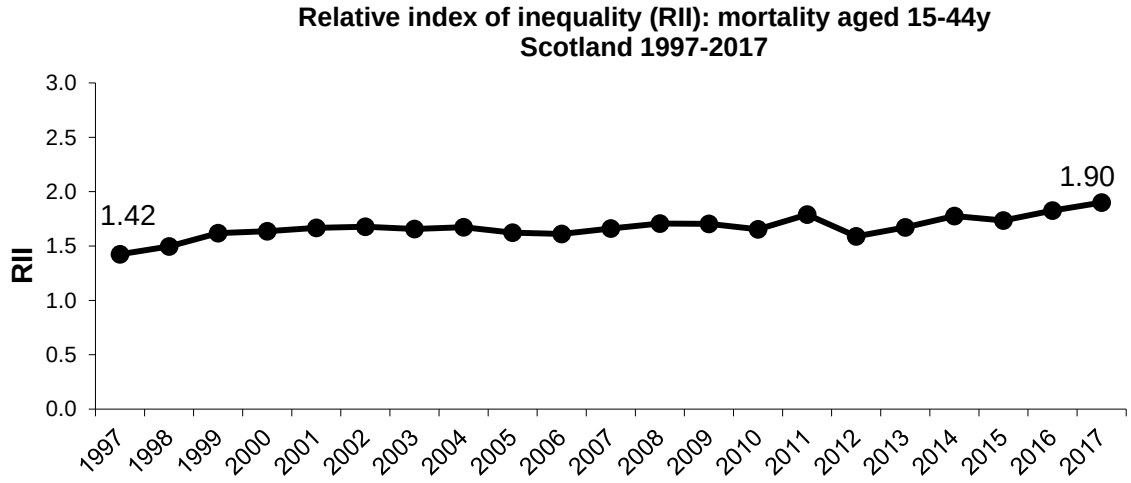
Figure 10.1

Trends in relative inequalities

There has been an overall increase in relative inequalities over time and they are currently at their highest point in the time series (1.90).

Since 1997, death rates have ranged between four and seven times higher in the most deprived areas compared to the least deprived.

Figure 10.2



Trends in absolute inequalities

The absolute gap between the most and least deprived areas in all-cause mortality between ages 15 and 44 reached its lowest level in 2013 (a gap of 159.6 per 100,000). In each of the four years since 2013, the mortality rate between ages 15 and 44 in the most deprived areas has increased and the gap between the most and least deprived areas widened to 211.7 per 100,000 in 2017.

Figure 10.3

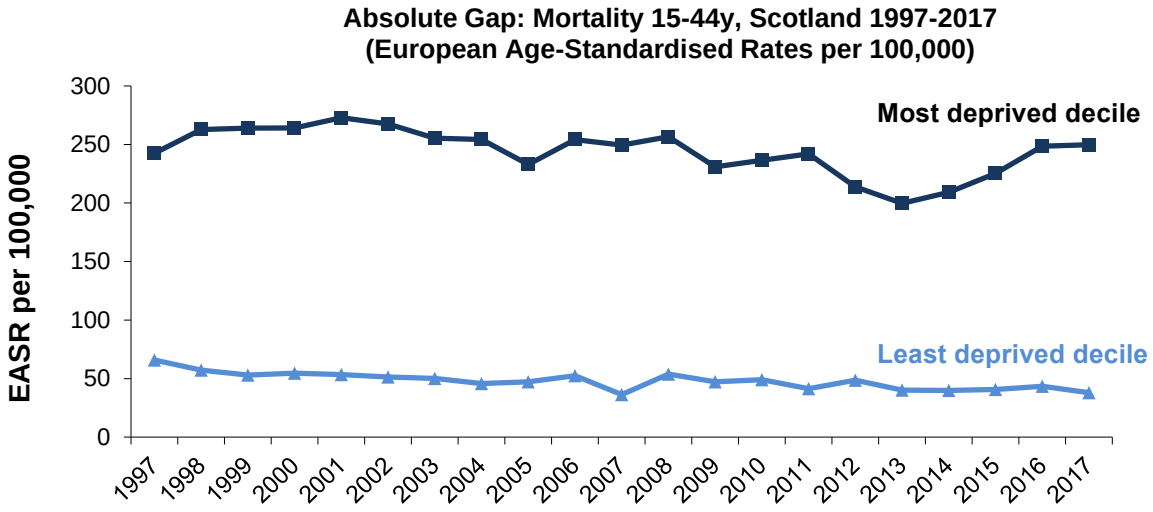


Table 10.1: Trends in all-cause mortality (aged 15-44), 1997-2017

	Number of all-causes deaths	Target population size	Rate per 100,000 (EASR)
1997	2,440	2,158,030	116.3
1998	2,507	2,142,787	119.4
1999	2,507	2,129,794	119.0
2000	2,501	2,118,568	118.7
2001	2,509	2,111,242	119.0
2002	2,566	2,102,670	122.0
2003	2,461	2,094,408	116.9
2004	2,409	2,088,563	114.7
2005	2,305	2,091,415	109.3
2006	2,482	2,091,581	118.3
2007	2,461	2,097,902	117.5
2008	2,443	2,096,495	117.5
2009	2,389	2,092,065	115.1
2010	2,229	2,087,635	108.6
2011	2,262	2,092,311	110.8
2012	2,071	2,077,902	102.8
2013	1,990	2,064,867	100.1
2014	1,904	2,053,897	96.8
2015	1,976	2,053,401	101.2
2016	2,194	2,054,055	112.5
2017	2,068	2,048,063	107.1

Table 10.2: Trends in deaths from assault, drug-related deaths and probable suicides, 1997-2017

	Deaths from assault		Drug related deaths		Suicides	
	Number	EASR per 100,000	Number	EASR per 100,000	Number	EASR per 100,000
1997	56	2.61	196	8.91	518	23.88
1998	65	3.03	227	10.56	526	24.44
1999	86	4.03	274	12.92	529	24.71
2000	60	2.85	268	12.69	541	25.60
2001	63	3.01	289	13.76	531	25.25
2002	76	3.63	345	16.72	539	25.73
2003	71	3.37	282	13.62	456	21.81
2004	78	3.77	311	15.24	475	22.67
2005	50	2.39	277	13.41	436	20.95
2006	83	3.99	350	17.14	435	20.93
2007	54	2.59	392	19.05	453	21.79
2008	53	2.54	477	23.29	480	23.35
2009	47	2.25	436	21.31	432	20.81
2010	54	2.57	384	18.88	423	20.53
2011	53	2.55	454	22.48	420	20.51
2012	37	1.85	416	20.75	375	18.34
2013	35	1.69	354	17.89	356	17.72
2014	22	1.04	416	21.11	309	15.37
2015	28	1.41	442	22.75	306	15.32
2016	34	1.72	568	29.15	329	16.23
2017	40	2.02	581	30.07	305	15.11

Low Birthweight

Trends in low birthweight

Around 2,800 low birthweight babies were born in Scotland in 2017.

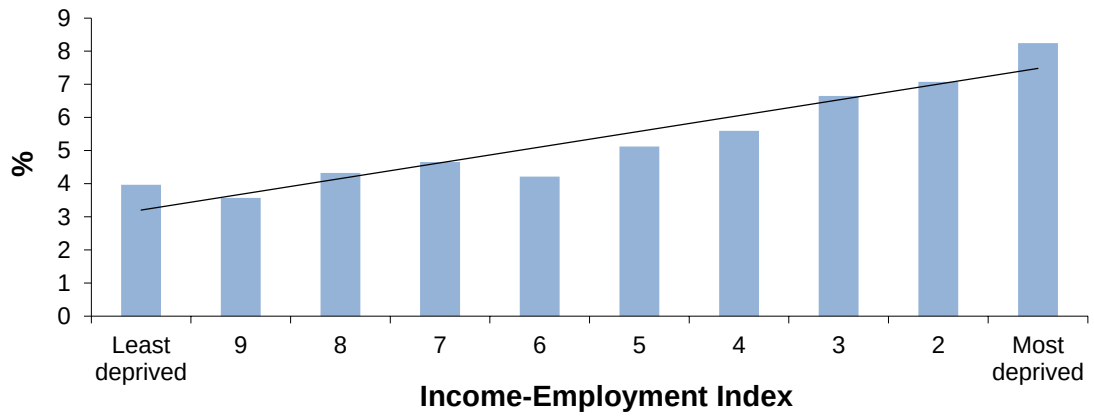
The percentage of babies born with low birthweight increased in the last four years from 5.1% in 2014 to 5.6% in 2017. Between 1996 and 2007 the percentage of babies born with a low birthweight ranged between 5.5% and 6.0%.

Inequalities in low birthweight 2017

In 2017, 8.2% of live singleton births in the most deprived areas were recorded as low birthweight. This is more than double the percentage in the least deprived areas (4.0%).

Figure 11.1

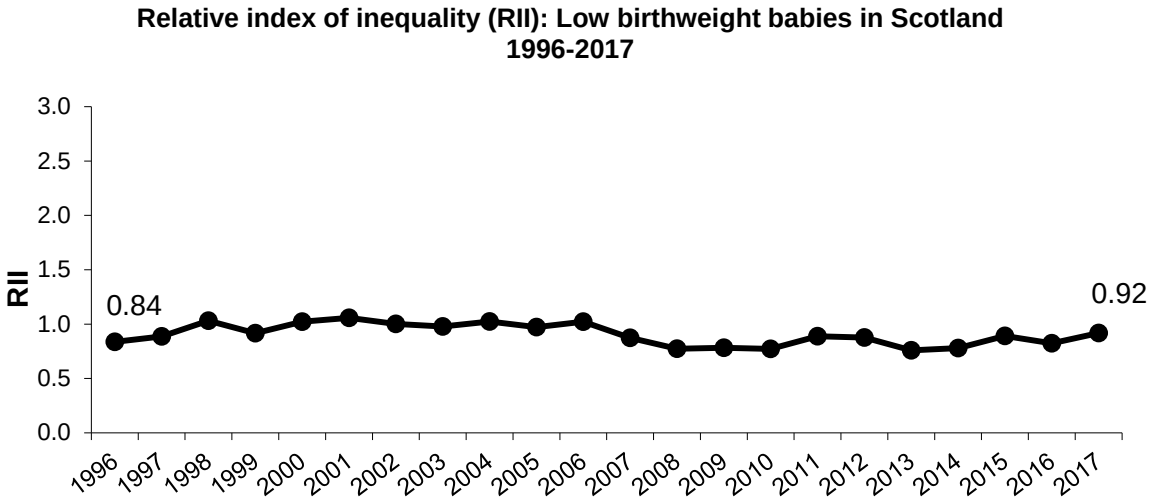
Low birthweight babies in Scotland by Income-Employment index 2017
(as percentage of live singleton births)



Trends in relative inequalities

Relative inequalities in low birthweight were higher in 2017 to those observed at the start of the time series (0.92 and 0.84 respectively). The RII values between 1997 and 2006 tended to be higher than those observed in the last decade, however, the RII in 2017 was the highest since 2006.

Figure 11.2



Trends in absolute inequalities

Overall, the absolute gap between the most and deprived areas has reduced from its widest point in 2004 (5.7 percentage points). However, the gap has fluctuated in recent years and its current value (4.3 percentage points) is the highest since 2006.

The narrowing and widening of the gap has tended to be driven by changes in the most deprived decile, as the least deprived decile has remained broadly stable since the beginning of the time series.

Figure 11.3

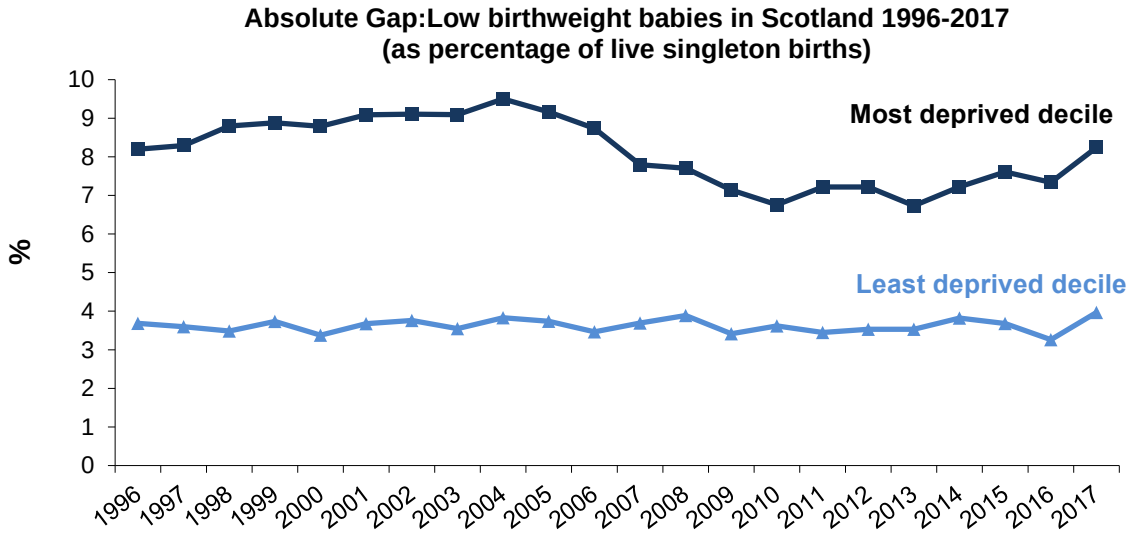


Table 11.1: Trends in low birthweight, 1996-2017

	Number of low birthweight babies	Target population size	% of live singleton births
1996	3,066	55,861	5.5
1997	3,149	56,982	5.5
1998	3,108	55,152	5.6
1999	3,098	52,726	5.9
2000	2,906	51,057	5.7
2001	2,848	49,744	5.7
2002	2,910	48,950	5.9
2003	3,026	50,069	6.0
2004	3,030	51,807	5.8
2005	3,058	51,436	5.9
2006	2,939	52,467	5.6
2007	3,095	55,271	5.6
2008	3,134	56,925	5.5
2009	2,893	56,107	5.2
2010	2,816	56,123	5.0
2011	2,946	56,037	5.3
2012	2,775	55,369	5.0
2013	2,684	53,219	5.0
2014	2,770	54,321	5.1
2015	2,818	52,807	5.3
2016	2,759	52,406	5.3
2017	2,824	50,658	5.6

Healthy Birthweight

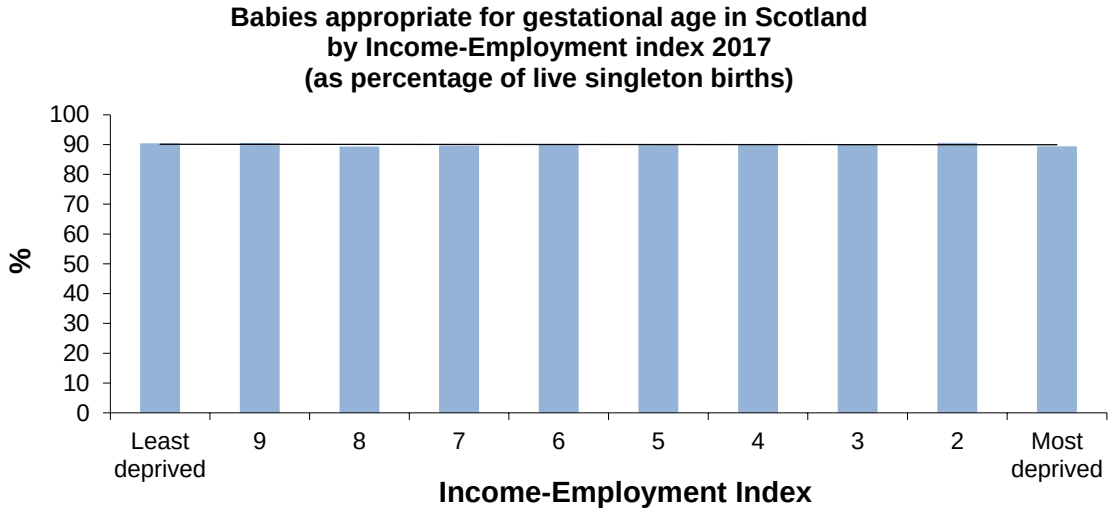
Trends in healthy birthweight babies

In each year of the time series, either 89% or 90% of babies have been of healthy birthweight. For the past six years the value has been 90%.

Inequalities in healthy birthweight babies 2017

In 2017, there was a marginal difference between the least and the most deprived areas in terms of the proportion of healthy births (90.4% versus 89.4%)

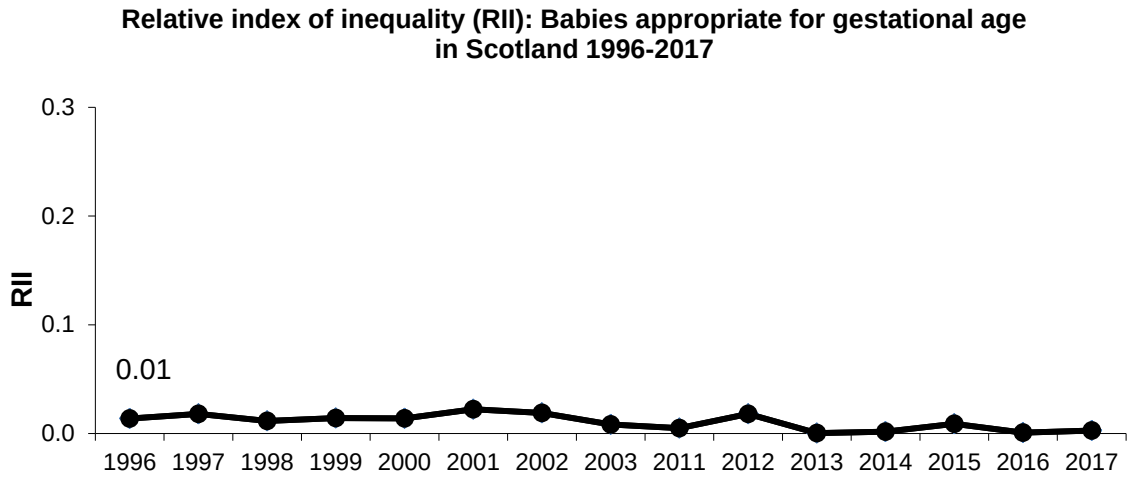
Figure 12.1



Trends in relative inequalities

Relative inequalities have been consistently low over the times series. The RII for 2017 is at 0.00, suggesting that there is no relative inequality for this indicator.

Figure 12.2



Trends in absolute inequalities

The absolute gap between the percentage of healthy birthweight babies in the most and least deprived deciles has been consistently low across the full time series.

Figure 12.3

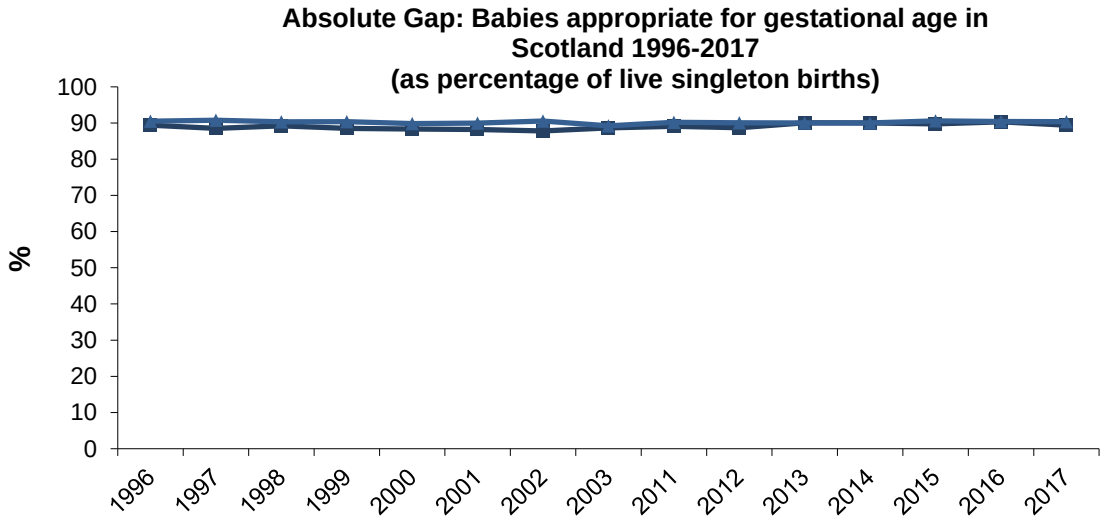


Table 12.1: Trends in healthy birthweight, 1996-2017

	Number appropriate for gestational age	Target population size	% of live singleton births
1996	49,989	55,759	89.7
1997	51,113	56,895	89.8
1998	49,303	55,075	89.5
1999	47,048	52,655	89.4
2000	45,292	50,978	88.8
2001	44,355	49,666	89.3
2002	43,571	48,853	89.2
2003	44,539	49,956	89.2
2004	45,842	51,694	88.7
2005	45,592	51,303	88.9
2006	46,678	52,330	89.2
2007	49,059	55,080	89.1
2008	50,658	56,733	89.3
2009	49,880	55,907	89.2
2010	50,236	56,027	89.7
2011	49,997	55,958	89.3
2012	49,454	55,249	89.5
2013	47,650	53,032	89.9
2014	48,602	53,969	90.1
2015	47,256	52,491	90.0
2016	46,677	51,852	90.0
2017	45,075	50,081	90.0

Self-assessed health

Trends in self-assessed health (adults aged 16+)

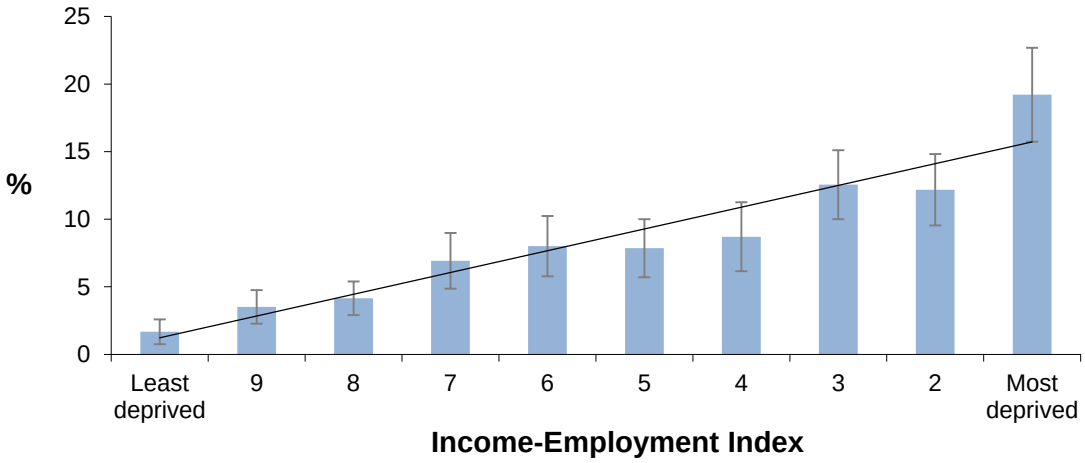
In 2016/2017, 8.5% of adults rated their health as ‘bad’ or ‘very bad’. This is a significant increase from the equivalent percentage in 2008/2009 (7.1%).

Inequalities in self-assessed health 2016/2017

In 2016/2017, adults in the most deprived areas were more than eleven times more likely to report poor health than those in the least deprived areas (19.2% versus 1.7%).

Figure 13.1

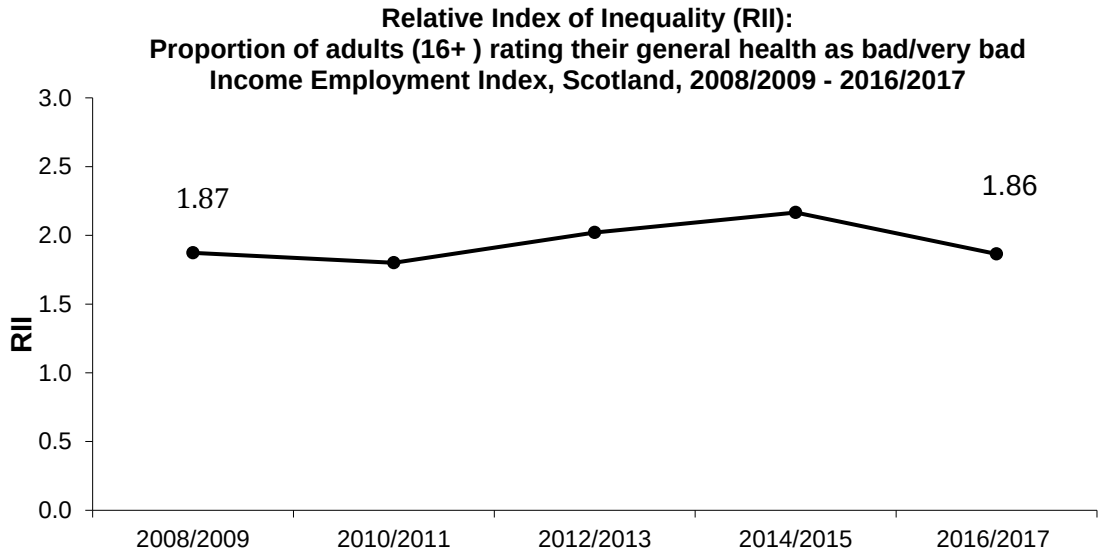
Proportion of adults (16+) rating their general health as bad/very bad by Income-Employment Index, Scotland 2016/2017



Trends in relative inequalities

Relative inequalities decreased to 1.86 in 2016/2017, having increased over the previous two time periods. The relative inequalities in 2016/2017 were similar to the start of the time series (1.87 in 2008/2009).

Figure 13.2



Trends in absolute inequalities

The absolute gap in the percentage of adults reporting poor health increased steadily between those living in the most and least deprived areas between 2008/2009 and 2014/2015 (from 13.1 percentage points to 19.2 percentage points). However, it decreased to 17.5 in 2016/2017. This decrease was largely driven by a decrease in the percentage of adults reporting poor health in the most deprived areas.

Figure 13.3

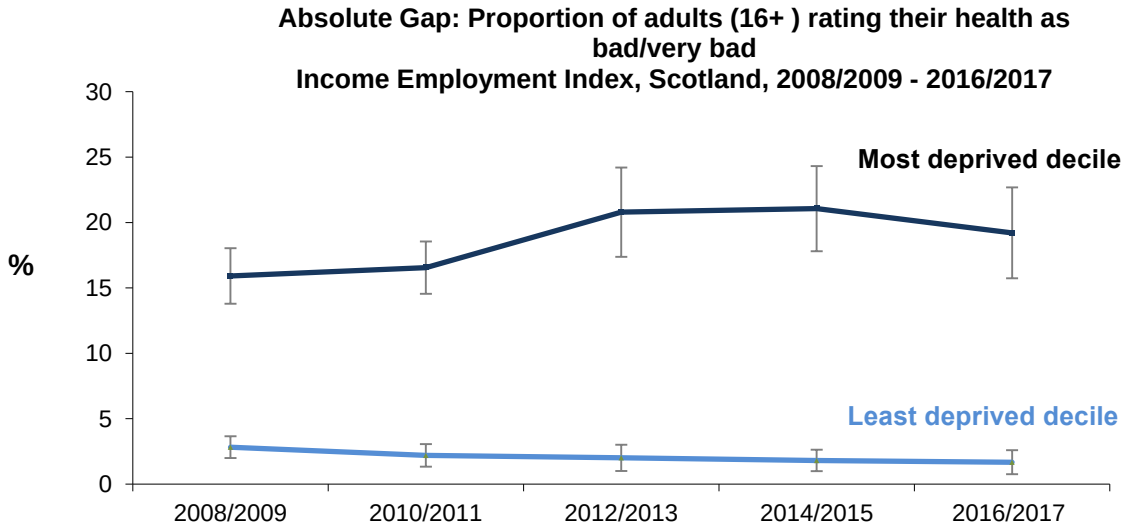


Table 13.1 Trends in self-assessed health, 2008/2009 to 2016/2017

Year	Proportion of adults rating general health as bad/very bad	Lower 95% confidence limit (%)	Upper 95% confidence limit (%)
2008/2009	7.1	6.6	7.6
2010/2011	7.6	7.0	8.1
2012/2013	8.6	7.9	9.4
2014/2015	8.2	7.5	8.9
2016/2017	8.5	7.8	9.3

Limiting long term conditions

Trends in limiting long term conditions (adults aged 16+)

A limiting long term condition is defined as a physical or mental health condition or illness lasting 12 months or more that reduces an individual's ability to carry-out day-to-day activities.

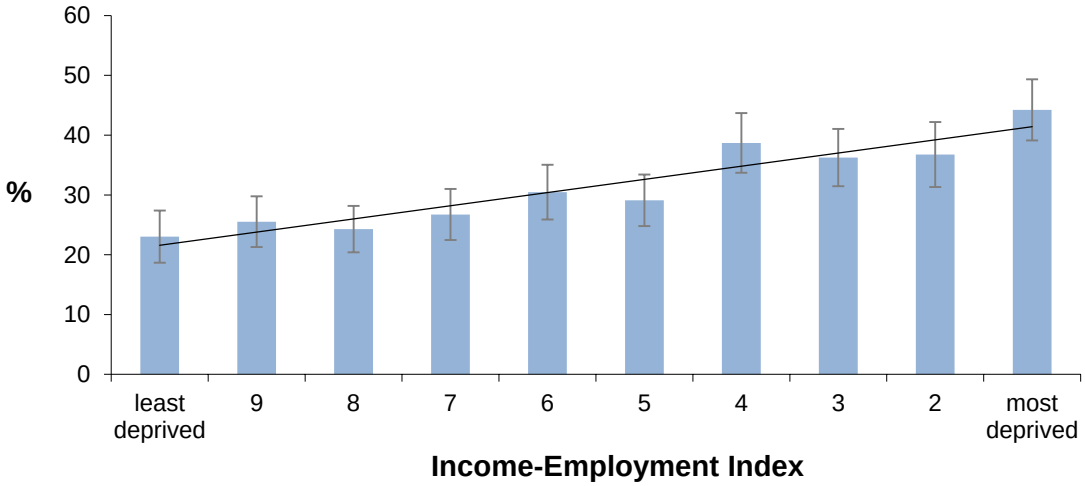
The percentage of adults reporting a limiting long term condition has increased significantly from 26% in 2008/2009 to 32% in 2016/2017.

Inequalities in limiting long term conditions 2016/2017

In 2016/2017, adults in the most deprived areas were approximately twice as likely to report a limiting long term condition as those in the least deprived areas (44.2% versus 23.0%).

Figure 14.1

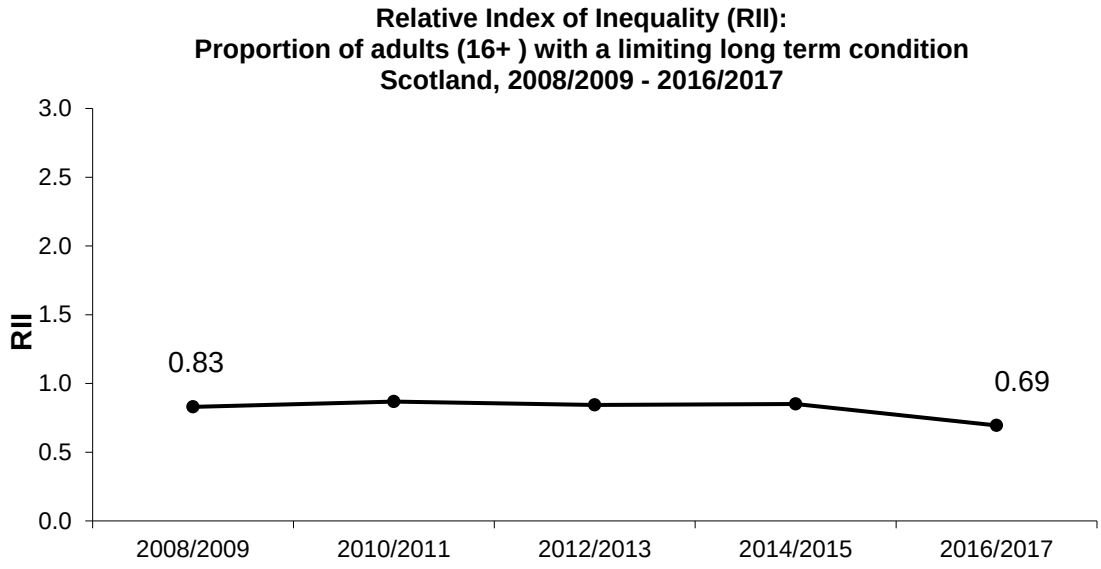
Proportion of adults (16+) with a limiting long term condition by Income-Employment Index, Scotland 2016/2017



Trends in relative inequalities

Relative inequalities in limiting long term conditions decreased between 2008/2009 and 2016/2017 from 0.83 to 0.69, the lowest figure in the time series.

Figure 14.2



Trends in absolute inequalities

The absolute gap in the prevalence of limiting long term conditions between the most and least deprived areas increased steadily between 2008/2009 and 2014/2015 before decreasing in 2016/2017 to levels similar to those seen at the start of the time series (21.2 percentage points in 2016/2017 and 20.5 percentage points in 2008/2009).

Figure 14.3

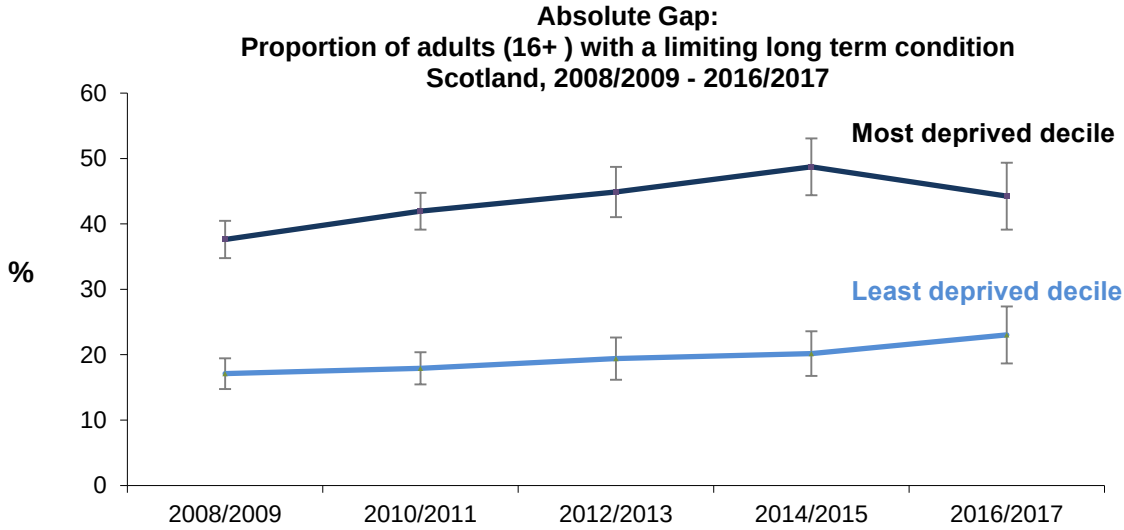


Table 14.1 Trends in limiting long-term conditions, 2008/2009 to 2016/2017

Year	% with limiting long term condition	Lower 95% confidence limit	Upper 95% confidence limit
2008/2009	25.6	24.7	26.6
2010/2011	28.1	27.1	29.0
2012/2013	31.6	30.2	33.0
2014/2015	31.7	30.5	33.0
2016/2017	31.5	29.9	33.1

Annex 1: Technical Notes

Measurement of Inequalities

Different measures can give information about different aspects of inequalities. Some measures concentrate on the extremes of deprivation, whilst others include inequalities across the scale, taking into account the whole population. Absolute and relative measures can give quite different interpretations of inequalities. In addition to this, measures based on rates alone will not give insight into the scale of the problem.

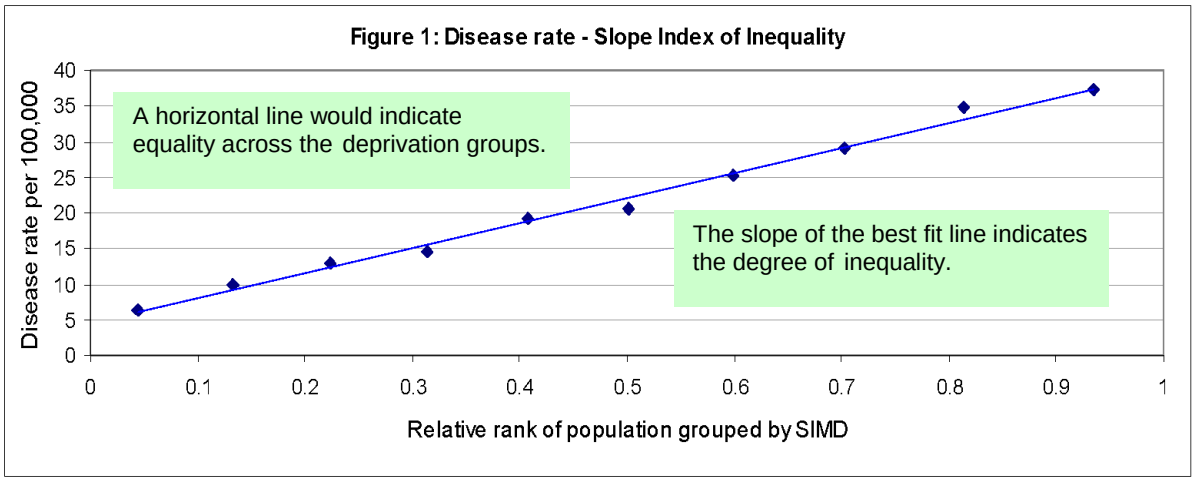
Information about different measures of inequality and their calculation was based on work done by the Scottish Public Health Observatory, available at: https://www.scotpho.org.uk/publications/reports-and-papers/measuring-socio-economic-inequalities-in-health-a-practical-guide/

The approach recommended by the expert group and adopted in this report uses a combination of measures, with the aim of giving a fuller understanding of the inequalities concerned.

Relative Index of Inequalities (RII): How steep is the inequalities gradient?

The RII describes the gradient of health observed across the deprivation scale, relative to the mean health of the whole population.

The RII is the slope index of inequality (SII) divided by the population mean rate. The SII is defined as the slope of the "best fit" regression line showing the relationship between the health status of a particular group and that group's relative rank on the deprivation scale. An equal rate across the deprivation categories would give a horizontal line with a slope of zero (SII=0), indicating no inequalities. The larger the absolute value of SII, the greater the inequalities observed (see Figure 1).



The SII and RII have the advantage that they are based on data about the whole population, rather than just the extremes, and so take into account inequalities across the scale. They do, however, require a reasonably linear relationship

between the health indicator and deprivation (or income). Another disadvantage is that the SII and RII are relatively difficult to interpret for a non-statistical audience.

The technical expert group concluded in 2012 and re-iterated in 2015 that, while there was evidence of non-linearity in some years for some indicators, linear methodology should be retained due to the complexity of non-linear methods, and the need of consistent reporting and general understanding.

Absolute range: How big is the gap?

This measure describes the absolute difference between the extremes of deprivation.

This measure has the advantage that it is intuitive and straightforward to explain. It has the disadvantage that, because it focuses only on the extremes of deprivation, it does not take account of patterns of inequalities observed across the intermediate groups.

Scale: How big is the problem?

The aim of this measure is to give insight into the underlying scale of the problem and to put it in context, for example by presenting numbers involved and past trends at Scotland level.

Income-Employment Index

The Short Life Technical Advisory Group also addressed the precise way in which deprivation should be defined for this work. The group agreed that the ideal would be to use individually linked records of health and socio-economic indicators, but acknowledged that these are not yet available. The preferred interim approach was to use the latest available versions of the Scottish Index of Multiple Deprivation income and employment domains. The reasoning behind this was that income / poverty / employment are felt to be the best indicators of deprivation for health inequalities analysis and because the possibility of being able to update these domains on a regular basis.

In order to combine the SIMD income and employment domains, each domain was exponentially transformed to reduce averaging effects. Exponential transformation gives greater weighting to the most deprived ranking, so combining a datazone ranked most deprived with a datazone ranked least deprived would give a combined ranking skewed towards the deprived end of the scale. This is the method used to create the SIMD.

The income and employment domains have been given equal weighting when combined in the income-employment Index.

In line with the recommendations of the Short Life Technical Advisory Group, the income-employment Index deciles are population based. Datazone based deciles are produced by ranking the datazones in Scotland according to their deprivation score and then dividing them into deciles based on number of datazones.

Population-basing the deciles uses the same approach but also takes into account the population sizes involved. The datazones are ranked according to their deprivation score alongside a cumulative total of datazone populations. The cut-off for decile 1 is the point at which 10% of the population has been included, rounded to the nearest whole datazone. Population-basing ensures the deciles contain equally sized populations, which is the best proxy to individual level indicators of deprivation available when using an area-based measure. Equally sized populations in the deciles are considered to be important for the types of inequalities analyses presented in this report.

European age-standardised rates

Rates are age-standardised in order to show patterns over time on a consistent basis, taking account of changes in the age distribution of the Scottish population, therefore more clearly showing any underlying trend. Similar, age-standardisation allows comparisons of rates for different countries, by taking account of differences in the age distributions in the populations of each country.

The 2013 European Standard Population (ESP) has been used to calculate European age-standardised rates included in this publication.

Annex 2: Data sources and quality

Data quality

Except where the source data is held by Scottish Government (i.e. the mental wellbeing, the limiting long terms conditions and the self-assessed health indicators), aggregate data is provided by National Records of Scotland for the mortality and alcohol mortality indicators, and by ISD Scotland for all other indicators in this report. Scottish Government statisticians carry out quality assurance checks on the aggregate data, comparing it with past trends and against other published data, such as national level data published by NRS or ISD. For the mental wellbeing, limiting long terms conditions and self-assessed health indicator, Scottish Government statisticians quality assure the aggregate data in the same way but take the additional step of double checking the programming methods used to derive the figures within the responsible team.

ISD Scotland and NRS are responsible for the quality assurance of their own datasets. Detailed information on the quality control of the relevant ISD datasets is available online[4]. National Records of Scotland have published detailed information on the quality of data on deaths[5]. Analysts at both ISD and NRS are provided with income-employment decile-datazone lookups and population estimates before a request for aggregate data is submitted.

[4] http://www.isdscotland.org/Health-Topics/Cancer/Scottish-Cancer-Registry/Quality-Assurance/

[5] http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/deaths-background-information/quality-of-nrs-data-on-deaths

Pre-release access

In accordance with the Pre-release Access to Official Statistics (Scotland) Order 2008, pre-release access to these statistics was provided to Scottish Government policy and communications officials 5 working days before release for the purposes of briefing ministers. NHS Health Scotland colleagues were also provided pre-release access from 5 working days before release for the purposes of making a statement or issuing a press release at the time of, or shortly after, publication.

Indicators

Premature Mortality (from all causes, aged under 75 years)

Source: National Records of Scotland**.**
Definition: European age-standardised rates of deaths from any cause amongst those aged under 75 years.

Mental Wellbeing (adults aged 16 years and over)

Source: Scottish Health Survey (2008-2017).
Definition: Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). This has been developed as a tool for measuring positive mental wellbeing at a population level. The scale comprises fourteen separate statements describing feelings related to mental wellbeing; respondents are asked to indicate how often they have felt such feelings over the last two weeks.

Results are presented as average WEMWBS score for the population concerned, and are age-standardised using the age distribution for the Scotland population each year. WEMWBS scores for individuals can range from 14 (for the lowest possible score for each of the fourteen statements) to 70 (for the maximum possible score for each of the fourteen statements).

An additional indicator based on the proportion of adults with 'below' average wellbeing is also included. This takes 'below average' WEMWBS scores to be at least on standard deviation below the population mean, which equates for scores of 41 or lower in all years.

In order to improve the precision of the estimates of mean and below average WEMWBS scores, data has been presented for two year combined periods in this report (2008/2009 to 2016/2017), together with confidence limits around each estimate.

Coronary Heart Disease - first ever hospital admission for heart attack aged under 75 years

Source: NHS Information Services Division (ISD); SMR01 records (all inpatient and daycase discharges).
Definition: European age-standardised rates of first ever hospital admission for acute myocardial infarction (heart attack) amongst those aged under 75 years. The following World Health Organisation International Classification of Disease coding was used: ICD10 'I21-I22'; ICD9 '410'.

Coronary Heart Disease - deaths aged 45-74 years

Source: NHS Information Services Division (ISD); using deaths data from National Records of Scotland.

Definition: European age-standardised rates death from coronary heart disease amongst those aged 45-74 years. The following World Health Organisation International Classification of Disease coding was used: ICD10 ‘I20-I25’; ICD9 ‘410-414’. Because of the dynamic nature of the linked database, previous years’ data are sometimes updated in subsequent publications.

Cancer - incidence rate aged under 75 years

Source: NHS Information Services Division (ISD); Scottish Cancer Registry.
Definition: European age-standardised rates of new cases of cancer amongst those aged under 75 years.

All Cancers- cancer defined as all malignant neoplasms excluding non-melanoma skin cancer. The following World Health Organisation International Classification of Disease coding was used: ICD10 ‘C00-C96’ excluding ‘C44’ (the Scottish Cancer Registry does not use code ‘C97’).
Prostate cancer (males only) - ICD-10 C61
Breast cancer (females only) - ICD-10 C50
Cancer of the trachea, bronchus and lung- ICD-10 C33-C34
Colorectal cancer- ICD-10 C18-C20

Cancer - deaths aged 45-74 years

Source: NHS Information Services Division (ISD); Scottish Cancer Registry.
Definition: European age-standardised rates of deaths from cancer amongst those aged under 45-74 years.
All cancers- cancer defined as all malignant neoplasms excluding non-melanoma skin cancer. The following World Health Organisation International Classification of Disease coding was used: ICD10 (2000 onwards) ‘C00-C97’ excluding ‘C44’.
Prostate cancer (males only) - ICD-10 C61
Breast cancer (females only) - ICD-10 C50
Cancer of the trachea, bronchus and lung- ICD-10 C33-C34
Colorectal cancer- ICD-10 C18-C20

Alcohol - first hospital admission aged under 75 years

Source: NHS Information Services Division (ISD).
Definition: European age-standardised rates of first hospital admission for alcohol related conditions amongst those aged under 75 years. These rates include hospitals discharges where alcohol-related problems are recorded as either primary or secondary reasons for admission to hospital and will cover first admission in the last ten years. These figures exclude private hospitals, mental illness hospitals, psychiatric units and maternity hospitals and include Scottish residents only. Caution is necessary when interpreting these figures. The recording of alcohol misuse may vary from hospital to hospital. Where alcohol misuse is suspected but

unconfirmed it may not be recorded by the hospital. The following revised World Health Organisation International Classification of Disease coding was used: ICD10: F10, K70, X45, X65, Y15, Y90, Y91, E244, E512, G312, G621, G721, I426, K292, K860, O354, P043, Q860, T510, T511, T519, Y573, R780, Z502, Z714, Z721.

Alcohol - deaths aged 45-74 years

Source: National Records of Scotland.
Definition: European age-standardised rates of death from alcohol related conditions amongst those aged 45-74 years. The definition of alcohol related deaths includes deaths where there was any mention of alcohol related conditions on the death certificate, rather than just as the main cause of death. The following World Health Organisation International Classification of Disease coding was used: ICD10 F10, G31.2, G62.1, I42.6, K29.2, K70, K73, K74.0, K74.1, K74.2, K74.6, K86.0, X45, X65, Y15; ICD9 291, 303, 305.0, 425.5, 571.0, 571.1, 571.2, 571.3, 571.4, 571.5, 571.8, 571.9, E860.

All-cause mortality aged 15-44 years

Source: National Records of Scotland.
Definition: European age-standardised rates of deaths from any cause amongst those aged 15-44 years. Specific breakdowns for deaths from assault, drug related deaths and suicide are also provided, as the major causes of death for which there are large inequalities amongst young people. There may be some double counting in these breakdowns. The following World Health Organisation International Classification of Disease coding was used: Assault ICD10 ‘X85-Y09’, ‘Y87.1’ ICD9 ‘E960-969’; Drug-related ICD10 ‘F11-16’, ‘F19’, ‘X40-44’, ‘X60-64’, ‘X85’, ‘Y10-Y14’; Suicide (intentional self-harm + undetermined intent) ICD10 ‘X60-84’, ‘Y87.0’ ICD9 ‘E950-959’, ‘E980-989’.

Low Birthweight

Source: NHS Information Services Division (ISD); SMR02 maternity dataset.
Definition: The figures are presented as a percentage of all live singleton births (not including home births or births in non-NHS hospitals). Low birthweight is defined as <2,500g - the standard World Health Organisation definition.

Healthy Birthweight

Source: NHS Information Services Division (ISD); SMR02 maternity dataset.
Definition: A baby is considered to be of healthy birthweight (a weight appropriate for its gestational age) when it lies between the 5th and 95th centile for weight at its gestational age. Gestational age is a way of expressing the age or development of a baby. It is typically based on an antenatal ultrasound scan. However, it may also

be estimated from the number of weeks since the mother's last normal menstrual period.

Note: In previous publications, data on appropriate birthweight for gestational age were produced using standard tables derived from Scottish data on all births from the years 1998-2003 by Sandra Bonnellie (Napier University) and Jim Chalmers (ISD).

Details of the way in which the standards were derived are available here: http://www.biomedcentral.com/1471-2393/8/5.

ISD recently updated their methodology and data on appropriate birthweight for gestational age are now produced using tables based on the UK-WHO child growth standards developed by the Royal College of Paediatrics and Child Health, see: https://www.rcpch.ac.uk/resources/growth-charts

Figures presented in this publication are calculated using the new methodology.

Self-assessed health (adults aged 16 years and over)

Source: Scottish Health Survey (2008-2017)
Definition: The indicator expresses the percentage of adults responding either 'bad' or 'very bad' to the following question from the Scottish Health Survey:

How is your health in general? Would you say it was…
1. … very good 2. good 3. fair 4. bad, or 5. very bad

Results are presented as percentage of adults self-reporting 'poor' or 'very bad' health, and are age-standardised using the age distribution for the Scotland population each year

In order to improve the precision of estimates, data has been presented for two year combined periods in this report (2008/2009 to 2016/2017), together with confidence limits around each estimate.

Limiting long-term conditions (adults aged 16 years and over)

Source: Scottish Health Survey (2008-2017)
Definition: The indicator expresses the percentage of adults responding 'yes' to the first question below and then either 'yes, a lot' or 'yes, a little' to the second question.

Do you have a physical or mental condition or illness lasting, or expected to last 12 months or more?
1. Yes 2. No

Does (*condition)* limit your activities in any way?
1. Yes, a lot 2. Yes, a little 3. Not at all

Results are presented as percentage of adults with a limiting long term condition, and are age-standardised using the age distribution for the Scotland population each year.

In order to improve the precision of estimates, data has been presented for two year combined periods in this report (2008/2009 to 2016/2017), together with confidence limits around each estimate.

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☐ are available via an alternative route

☐ may be made available on request, subject to consideration of legal and ethical factors. Please contact healthsurveyscotland@gov.scot for further information.

☒ cannot be made available by Scottish Government for further analysis as Scottish Government is not the data controller.

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