

HEALTH AND SOCIAL CARE

Long-term Monitoring of Health Inequalities

October 2015 report

Healthy Life Expectancy

There have been no significant changes to inequalities in male or female healthy life expectancy since 2009-2010.

In 2013-2014, male healthy life expectancy (HLE) at birth in the 10% most deprived areas in Scotland was 47.6 years, 25.1 years lower than in the least deprived areas (72.7 years).

Female HLE at birth was 51.0 years in the most deprived areas in 2013-2014, 22.1 years lower than in the least deprived areas (73.2 years).

Premature Mortality

Relative inequalities in premature mortality rates have widened over the long term but stabilised in the years since 2006.

The absolute gap in mortality rates between most and least deprived areas has reduced since 2002. This is reflected by a reduction in the gap between the most and least deprived areas in coronary heart disease death rates and alcohol-related death rates in adults aged 45-74 over the same time period.

Mental Wellbeing

The gap in prevalence of below average wellbeing between those in the most deprived areas and least deprived areas has widened since 2008/2009.

In 2012/2013, adults in the most deprived areas were five times more likely to have below average wellbeing than those in the least deprived areas (26% compared to 6%), indicated by a score of 41 or lower on the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS).

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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, and most recently met in 2015 to review the list of indicators and methods adopted in this report.¹

The Task Force reviewed progress shown by these indicators in 2012. It noted that, despite much commitment and resource, the scale of health inequalities had not reduced.

Evidence from a policy review² conducted by NHS Health Scotland illustrated that, whilst the publication of Equally Well³ in 2008 marked the desire to shift focus to the broader social and economic determinants of health, rather than solely focusing on NHS-based solutions, there had in practice been a tendency towards focusing on 'downstream' activities (dealing with people after they have acquired problems) rather than dealing with issues 'upstream' in order to prevent these problems arising in the first place.

The Task Force was asked to reflect on changes in the way that people and communities were being engaged in decisions that affect them, and the impact of the Christie Commission on how health inequalities are being tackled. Its most recent report incorporated NHS Health Scotland's policy review of interventions to address inequalities.

An Inequalities Action Group was established to oversee delivery of actions that contribute to reducing health inequalities, including a focus on developing social capital; increasing the capacity of Community Planning Partnerships to take the lead in addressing health inequality; a specific focus on the 15-44 age group; and the development of a Place Standard to improve people's living environments.

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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

² NHS Health Scotland Policy Review, March 2014: http://www.healthscotland.com/documents/23047.aspx

³ Equally Well, 2008: http://www.scotland.gov.uk/Publications/2008/06/25104032/0

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

This year's report does not include results for low birthweight or healthy birthweight indicators, as updated data for this indicator is not yet available.

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

Methods

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

- 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.
- 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.

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) has been used to define deprivation, in the absence of individual-level data on socio-economic circumstance. These indicators and measures were recommended for long-term monitoring of health inequalities due to deprivation 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

In July 2015, there was a further meeting of the technical advisory group. The meeting 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.

Changes agreed and incorporated in this year's report include the inclusion of a new indicator of 'below average' mental wellbeing, which more effectively illustrates the inequalities in mental wellbeing compared to the indicator included in previous reports.

The 'first ever' alcohol-related hospital admissions indicator has also been revised to refer to first hospital admissions in the last ten years to ensure consistency over the full reporting period.

Headline indicators of Health Inequalities

Healthy Life Expectancy (HLE)

In 2013-2014, male HLE at birth in the 10% most deprived areas in Scotland was 47.6 years, 25.1 years lower than in the least deprived areas (72.7 years).

Female HLE at birth was 51.0 years in the most deprived areas, 22.1 years lower than in the least deprived areas (73.2 years).

There have been no statistically significant changes to the gap in healthy life expectancy between the most and least deprived areas for men or women since 2009-2010.

Trends in HLE

In 2013-2014, HLE in Scotland was 60.6 years for males and 62.2 years for females. The increase in healthy life expectancy among men since 2011-2012, from 59.8 to 60.6 years, was not statistically significant. There has been less fluctuation in female HLE.

Between 1999-2000 and 2007-2008, HLE increased by 3.0 years for males and by 2.3 years for females. In 2009, the format of the self-assessed health question, on which healthy life expectancy data is based, was changed to align with the European Union, leading to a major discontinuity in the series. The markedly lower estimates of HLE at birth from 2009 onwards are not comparable with estimates for earlier years.

Inequalities in HLE, 2013-2014

HLE is significantly lower in the most deprived areas than in the least deprived areas, and increases linearly with decreasing area deprivation.

In 2013-2014, male HLE at birth in the 10% most deprived areas in Scotland was 47.6 years, 25.1 years lower than in the least deprived areas (72.7 years). For females, HLE at birth was 51.0 years in the most deprived areas, 22.1 years lower than in the least deprived areas (73.2 years).

Figure 1.1

Healthy Life Expectancy - Males - by Income-Employment Index
Scotland 2013-2014

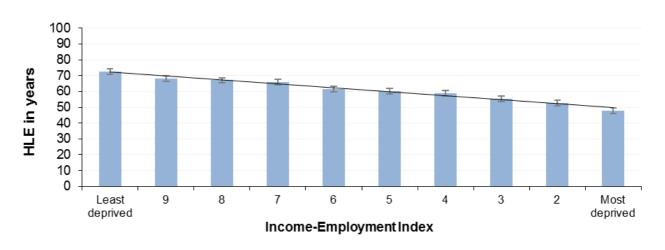
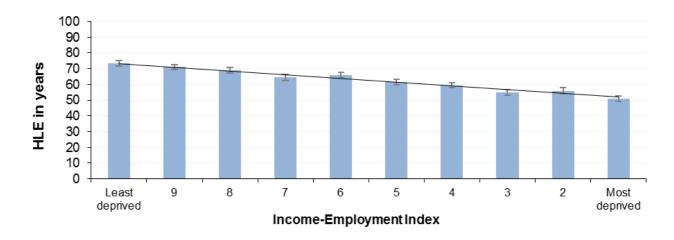


Figure 1.2

Healthy Life Expectancy - Females - by Income-Employment Index
Scotland 2013-2014



The relative index of inequalities (RII) has shown little change in the period since 2009-2010, ranging from 0.38-0.43 for men and from 0.36-0.40 for women over the period.

Although RII is lower in earlier years, the change in methodology used to calculate HLE means these figures are not comparable. Between 1999-2000 and 2007-2008, RII fluctuated in the range 0.29-0.33 for men and 0.25-0.28 for women and with no clear trend.

Figure 1.3

Relative Index of Inequality (RII): Healthy Life Expectancy - Males
Scotland 1999-2000 to 2013-2014

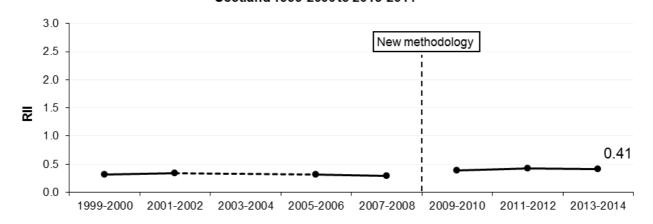
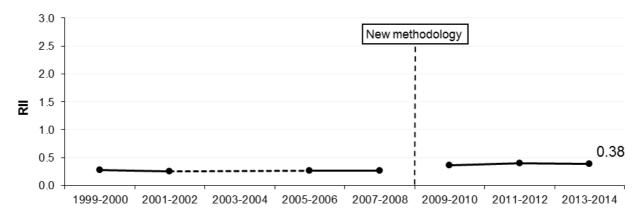


Figure 1.4

Relative Index of Inequality (RII): Healthy Life Expectancy - Females
Scotland 1999-2000 to 2013-2014



Trends in absolute inequalities

The absolute range in HLE has increased among men from 22.5 years in 2009-2010 to 25.1 years in 2013-2014. This increase was not statistically significant, so data for future years in the time series will be required to determine if this is the beginning of a longer-term widening of the gap.

This follows a non-significant increase in HLE in the most deprived areas from 47.4 to 47.6 years but a significant increase from 69.9 to 72.7 years in the least deprived areas.

Among women, although there have been some fluctuations in HLE across the deprivation spectrum, recent changes have been similar in the most and least deprived areas.

Figure 1.5

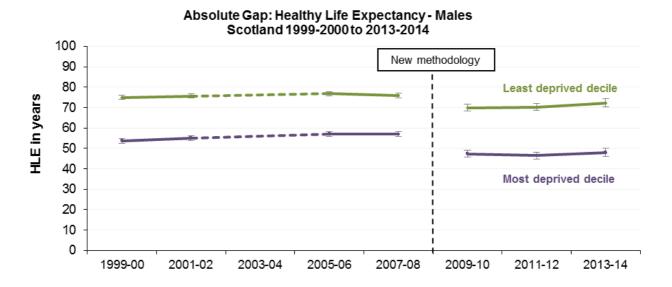
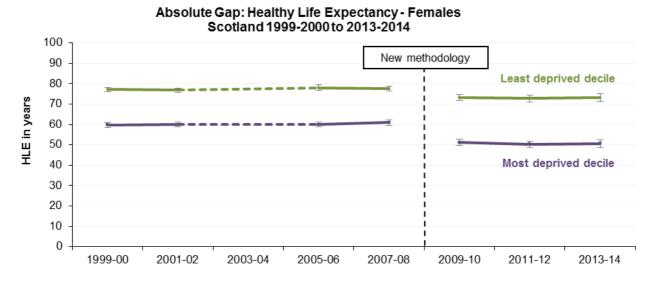


Figure 1.6



Healthy Life Expectancy and Life Expectancy, 2009-2010 to 2013-2014

The difference between HLE and life expectancy (LE) indicates the expected number of years spent in 'not good' health. In 2013-2014, men spend an average of 16.6 years in 'not good' health, compared to 19.0 years for women.

Men and women in the most deprived areas in Scotland spend more years in 'not good' health than those in the least deprived areas. In the most deprived areas, men spend on average 22.6 years in 'not good' health, compared to 9.8 years in the least deprived areas. The increase in HLE in the least deprived areas among men since 2011-2012 has outpaced the increase in LE, leading to a reduction in the number of years spent in 'not good' health.

Females in the most deprived areas spend 25.7 years in 'not good' health, compared with 11.3 years in the least deprived areas.

Table 1.1: Trends in male healthy life expectancy and life expectancy

Table 1.1. Helius III	male mean	iny me exp	deciancy a	na me exp	ectancy		
	Male HLE in years	95%LL	95%UL	Male LE in years	95%LL	95%UL	Estimated years spent in 'not good' health
2009-2010							
Scotland	59.9	59.4	60.4	76.1	76.0	76.2	16.2
Most deprived decile	47.4	45.8	49.0	68.7	68.3	69.1	21.3
Least deprived decile	69.9	68.2	71.6	82.0	81.6	82.3	12.1
2011-2012							
Scotland	59.8	59.3	60.4	76.6	76.4	76.7	16.7
Most deprived decile	46.4	44.7	48.2	69.2	68.8	69.6	22.7
Least deprived decile	70.2	68.5	71.9	82.1	81.8	82.4	11.9
2013-2014							
Scotland	60.6	60.0	61.2	77.2	77.0	77.3	16.6
Most deprived decile	47.6	45.8	49.4	70.2	69.8	70.6	22.6
Least deprived decile	72.7	71.0	74.5	82.5	82.2	82.9	9.8

Table 1.2: Trends in female healthy life expectancy and life expectancy

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	Female HLE in years	95%LL	95%UL	Female LE in years	95%LL	95%UL	Estimated years spent in 'not good' health
2009-2010							
Scotland	62.1	61.6	62.6	80.6	80.5	80.8	18.6
Most deprived decile	51.1	49.6	52.6	76.1	75.7	76.5	24.9
Least deprived decile	73.2	71.7	74.7	84.8	84.5	85.1	11.6
2011-2012							
Scotland	62.3	61.8	62.9	80.9	80.8	81.0	18.5
Most deprived decile	50.2	48.6	51.8	76.4	76.0	76.7	26.1
Least deprived decile	72.8	71.2	74.5	84.8	84.5	85.2	12.0
2013-2014							
Scotland	62.2	61.7	62.8	81.2	81.1	81.3	19.0
Most deprived decile	51.0	49.2	52.9	76.7	76.3	77.0	25.7
Least deprived decile	73.2	71 4	74 9	84.5	84 2	84 8	11.3

Premature Mortality

The gap between most and least deprived areas has reduced since 2002. However, despite stabilising in the years since 2006, relative inequalities have widened over the long term.

In 1997, premature mortality rates were 2.7 times higher in the most deprived areas compared to the least deprived; in 2013, rates were 3.2 times higher in the most deprived areas.

Trends in premature mortality

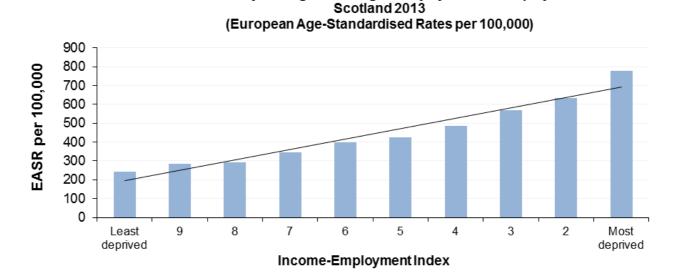
There has been a year-on-year reduction in the mortality rate among under-75s in each year covered by this report. The age-standardised mortality rate among under-75s in 2013 was 437.5 per 100,000 people, a reduction by 33 per cent since 1997 and by 24 per cent in the last ten years. More than 20,000 people in Scotland died before the age of 75 in 2013.

Inequalities in premature mortality, 2013

In 2013, the premature mortality rate in the 10% most deprived areas was 777.4 per 100,000, 3.2 times higher than the rate in the least deprived areas (241.4 per 100,000).

Figure 2.1

All cause mortality amongst those aged <75y by Income-Employment Index



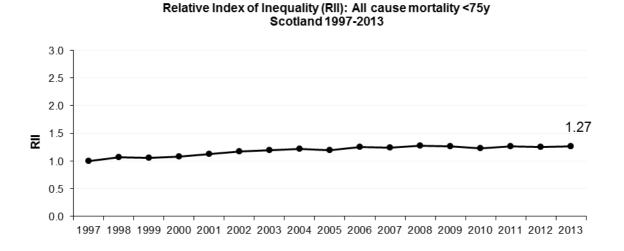
Relative inequalities in premature mortality have been stable since 2006 (RII ranging from 1.23 to 1.27).

Over the longer term, relative inequalities increased as the reductions in death rates occurred at a slower rate in the most deprived areas compared to the least deprived areas, in particular between 1997 and 2006.

Between 1997 and 2013, premature mortality rates declined by 37% in the least deprived areas and by 25% in the most deprived areas in Scotland.

In 1997, premature mortality rates were 2.7 times higher in the most deprived areas compared to the least deprived; in 2013, premature mortality rates were 3.2 times higher in the most deprived areas.

Figure 2.2

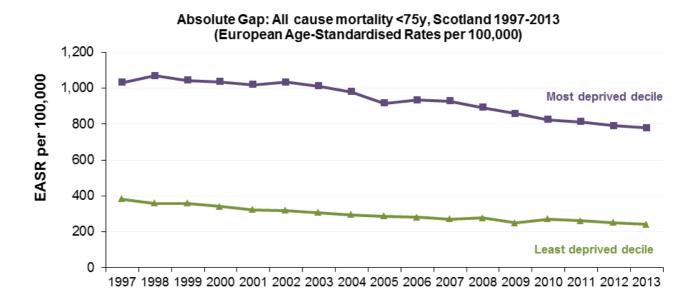


Trends in absolute inequalities

Absolute inequalities in premature mortality have fluctuated but continued an overall downward trend since peaking in 2002.

There have been year-to-year reductions in the absolute gap between the most and least deprived areas since 2007, meaning the gap is now smaller than it was in any other year covered by these figures.

Figure 2.3



In 2002, the premature mortality rate in the most deprived areas was 1,033.2 per 100,000 and 319.8 per 100,000 in the least deprived areas, a gap of 713.4 per 100,000. By 2013, the gap had reduced to 536.0 per 100,000.

Table 2.1: Trends in premature mortality, 1997-2013

		3 /	
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

Mental Wellbeing - adults aged 16+

The gap in prevalence of below average wellbeing between those in the most deprived areas and least deprived areas has widened since 2008/2009.

In 2012/2013, adults in the most deprived areas were five times more likely to have below average wellbeing than those in the least deprived areas (26% compared to 6%), indicated by a WEMWBS score of 41 or lower.

This follows a non-significant increase (from 24% to 26%) in the proportion of adults in the most deprived areas with below average mental wellbeing, and a statistically significant decrease (from 8% to 6%) in the proportion of adults in the least deprived areas with below average wellbeing.

Trends in mental wellbeing

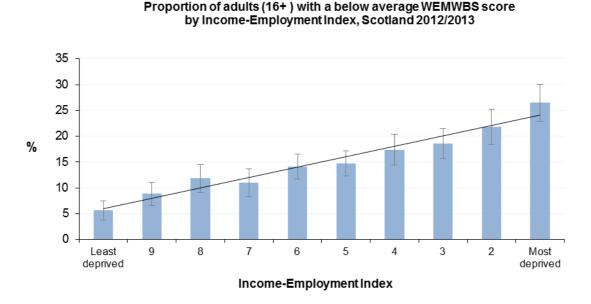
The mean score on the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) has been fairly static, at 49.8 in 2008/2009 and 49.9 in 2010/2011 and 2012/2013.

'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% between 2008/2009 and 2012/2013.

Inequalities in mental wellbeing, 2012/2013

In 2012/2013, 26% of adults in the most deprived areas had below average wellbeing, indicated by a WEMWBS score of 41 or lower. This compared to 6% of adults in the least deprived areas. The pattern of inequalities showed a fairly steady rise in prevalence of below average mental wellbeing with increasing area deprivation, with a slightly sharper increase in the 10% most deprived areas.

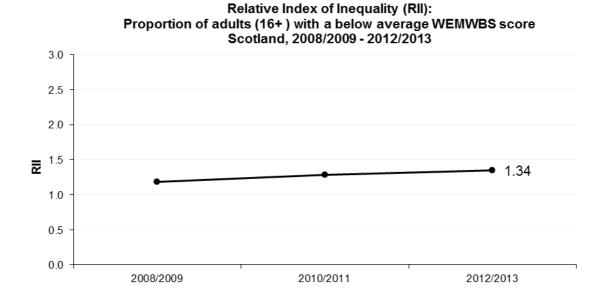
Figure 3.1



The relative index of inequality (RII) in below average wellbeing has increased from 1.18 in 2008/2009 to 1.34 in 2012/2013.

Adults in the most deprived areas are approximately 5 times more likely to have below average wellbeing compared to those in the least deprived areas in 2012/2013. In 2008/2009, adults in the most deprived areas were 3 times more likely to have below average wellbeing.

Figure 3.2



Trends in absolute inequalities

The gap in prevalence of below average wellbeing between those in the most deprived areas and least deprived areas has widened since 2008/2009, following a non-significant increase (from 24% to 26%) in the proportion of adults in the most deprived areas with below average mental wellbeing, and a statistically significant decrease (from 8% to 6%) in the proportion of adults in the least deprived areas with below average wellbeing.

Figure 3.3

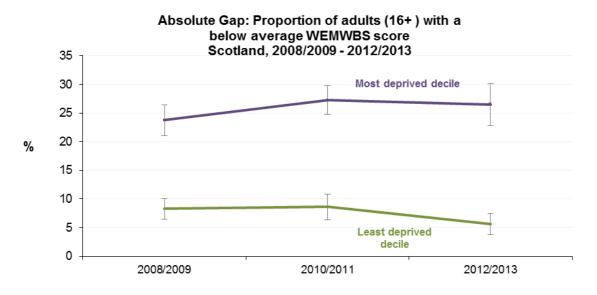


Table 3.1: Trends in mental wellbeing, 2008/2009-2012/2013

	Mean WEMWBS			Below average wellbeing*		
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

*indicated by a WEMWBS score of 41 or lower

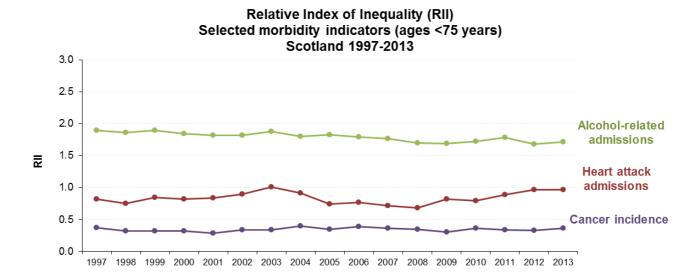
Inequalities in morbidity and mortality indicators

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 alcohol-related hospital admissions have declined over the long term and heart attack hospital admissions inequalities have increased in the years since 2008, relative inequalities have remained highest in the alcohol-related indicators throughout the period covered by this report. Inequalities in cancer incidence have been more stable in relative terms.

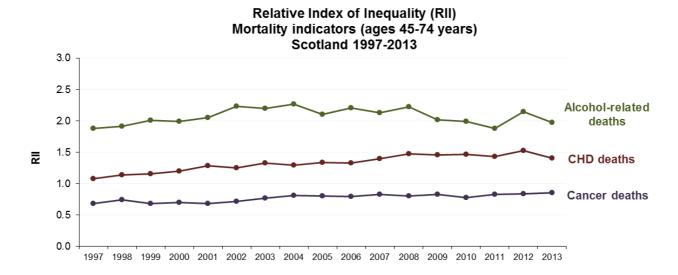
Figure 4.1



Despite a drop in 2013, relative inequalities in CHD mortality among adults aged 45-74 have increased over the long term. Alcohol-related deaths relative inequalities have shown more year to year fluctuation but also dropped in the last year.

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 4.2



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

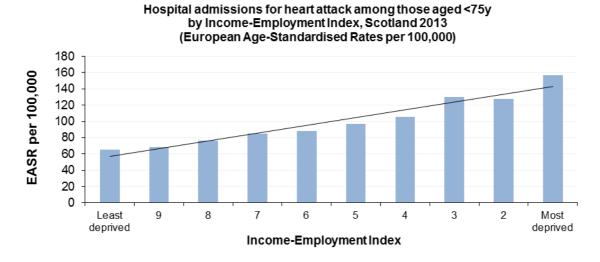
Trends in heart attack hospital admissions

In 2013, around 4,700 new cases of heart attack (for those aged under 75 years) were recorded in Scottish hospitals. The rate of admissions is 32% lower than in 1997 but, despite a small decrease in the last year, the recent trend has been increasing after admissions reached their lowest level in 2007.

Inequalities in hospital heart attack hospital admissions, 2013

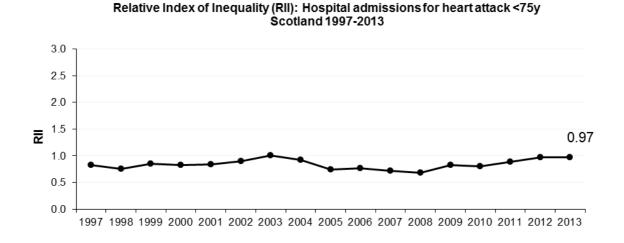
The latest admission rate in Scotland's most deprived areas is 2.4 times greater than that of the least deprived (156.5 cases per 100,000 compared to 65.1 per 100,000).

Figure 5.1



Relative inequality levels for heart attack hospital admissions have fluctuated over time. However, despite little change in the last year, there had been a general increasing trend since RII reached its lowest level in 2008.

Figure 5.2

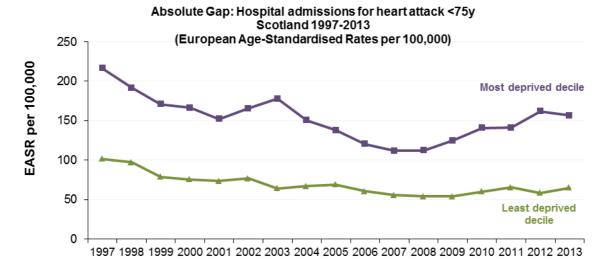


Heart attack hospital admission rates (aged < 75) have generally been approximately 2-3 times higher in the most deprived areas compared to the least deprived areas. In 2013, rates are 2.4 times higher in the most deprived areas than in the least deprived.

Trends in absolute inequalities

Absolute inequality has also fluctuated. Following consecutive falls between 2003 and 2007, the gap widened before narrowing slightly in the most recent year.

Figure 5.3



In 2013, the heart attack admission rate in the most deprived areas was 156.5 per 100,000, compared to a rate of 65.1 per 100,000 in the least deprived areas (a gap of 91.4 per 100,000).

The gap was largest in 1997, when the admissions rate was 216.5 per 100,000 and 101.9 per 100,000 in the most and least deprived areas respectively (a gap of 114.6 per 100,000).

Table 5.1: Trends in heart attack hospital admissions (aged <75), 1997-2013

Table 3.1. Trends in heart attack hospital admissions (aged <73), 1337-2013					
	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		

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

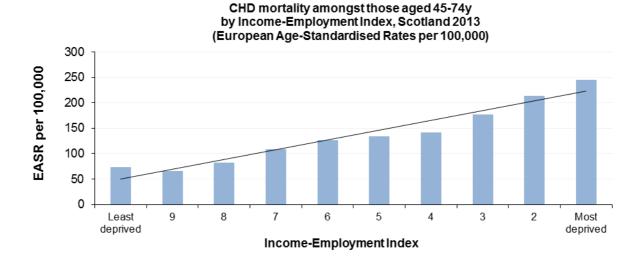
Trends in CHD deaths

Since 1997, there has been a considerable decrease in CHD mortality amongst the population aged 45-74 years. The death rate has fallen by 64% to 133.7 per 100,000, the lowest rate in the reporting period (1997 to 2013). However, CHD remains one of Scotland's biggest causes of premature mortality, with around 2,500 deaths occurring in this age group in 2013.

Inequalities in CHD deaths, 2013

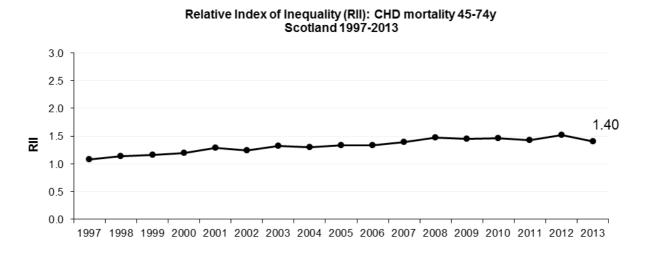
In 2013, the CHD mortality rate was 3.4 times greater in Scotland's most deprived areas compared to the least deprived (245.9 compared to 73.3 deaths per 100,000 population).

Figure 6.1



Relative inequalities in CHD mortality grew steadily over time until 2008. Since then they have fluctuated (in the range 1.40-1.52) with no clear pattern. The decrease in 2013 brings RII to its lowest level since 2007.

Figure 6.2



In 1997, CHD mortality rates were 2.8 times higher in the most deprived areas compared to the least deprived areas. Rates have typically been 3-4 times higher in the most deprived areas (3.4 times higher in 2013).

Trends in absolute inequalities

Absolute inequality has reduced over time, with consecutive decreases from 1998 to 2002 and then again from 2003 to 2006. The gap has continued to narrow, and the difference between most and least deprived areas is now around 56% lower than in 1998.

Figure 6.3

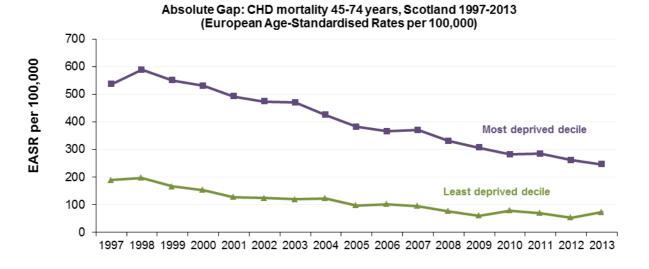


Table 6.1: Trends in coronary heart disease deaths (aged 45-74), 1997-2013

	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
2012	2,515	1,986,202	133.7

Cancer - incidence rate aged under 75 years

Trends in cancer incidence

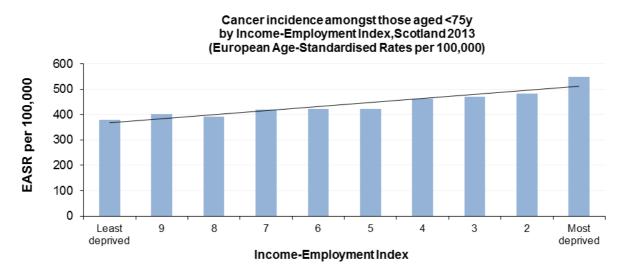
The number of new cases of cancer incidence among people aged under 75 has continued to increase and, in 2013, was more than 20,500. This is explained in part by Scotland's ageing population.

The age-standardised cancer incidence rate was broadly stable between 1997 and 2005 and, following a period of increase, has generally declined since 2009.

Inequalities in cancer incidence, 2013

In 2013, there were 548.2 cases per 100,000 people in the most deprived areas, compared to 380.3 per 100,000 in the least deprived.

Figure 7.1



Cancer incidence is more common in the most deprived areas of Scotland. However, this is not the case for all types of cancer. 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.

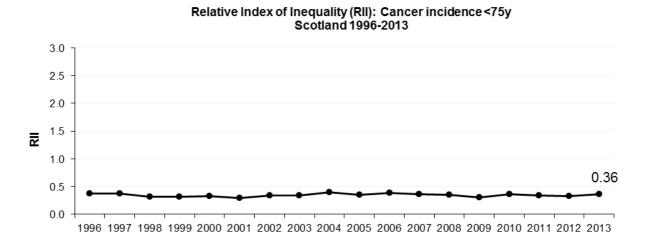
Of the most common types, the absolute gap between most and least deprived areas was largest for cancer of the trachea, bronchus and lung (2013 rates were 143.9 and 30.9 per 100,000 population in the most and least deprived areas respectively).

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⁴ Web tables accompanying this publication include incidence inequality data for prostate cancer, breast cancer, cancer of the trachea, bronchus and lung, and colorectal cancer.

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 7.2

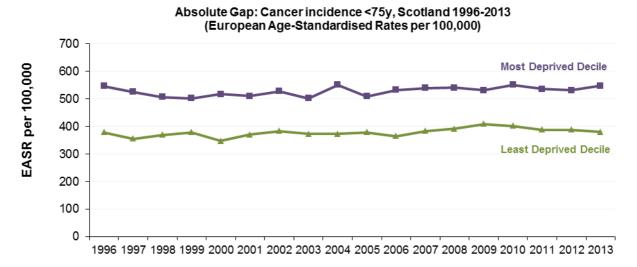


Incidence rates have typically been 30-50% higher in the most deprived areas in Scotland compared to the least deprived (44% in 2013).

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 stable since 1997.

Figure 7.3



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 narrowed to its lowest level the following year (rates of 509.5 per 100,000 and 379.6 per 100,000, respectively).

Table 7.1: Trends in cancer incidence (aged < 75), 1997-2013

Table 7.1. Treflus III cancer incluence (aged < 75), 1997-2015					
	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		

Cancer- deaths aged 45-74 years

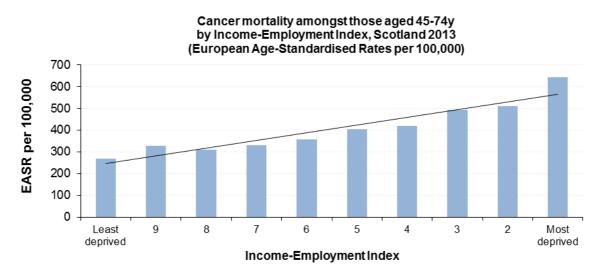
Trends in cancer deaths

The cancer mortality rate amongst those aged 45-74 years has fallen by around 25% since 1996 (from 529.8 to 399.8 per 100,000 population, in 2013). The number of deaths each year has also reduced in this period, from around 8,400 to 7,500.

Inequalities in cancer deaths, 2013

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 (642.4 deaths per 100,000 population compared to 270.1 per 100,000 population, in 2013).

Figure 8.1



As is the case for cancer incidence, inequality levels vary when examining deaths by cancer type⁵. 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.

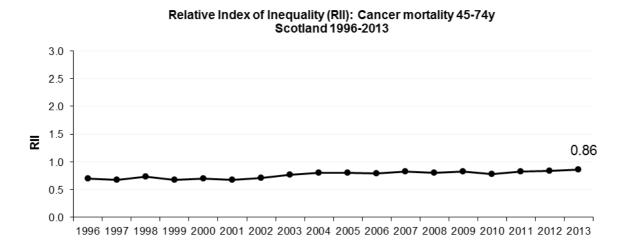
The most considerable differences between rates in the most and least deprived areas are observed for cancer of the trachea, bronchus and lung (261.1 compared to 57.0 per 100,000 population).

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⁵ Web tables accompanying this publication include mortality inequality data for prostate cancer, breast cancer, cancer of the trachea, bronchus and lung, and colorectal cancer.

Relative inequalities for this indicator have continued to increase over time. Despite little variation since 2007, the latest RII figure is the largest in the time series (0.86, compared to 0.68-0.81 in the years 1997 to 2006).

Figure 8.2



Cancer mortality rates (aged 45-74) have been approximately two times higher in the most compared to least deprived areas (2.4 times higher in 2013). In 1997, rates were two times higher in the most deprived areas.

Trends in absolute inequalities

Levels of absolute inequality for cancer deaths have fluctuated since 1997. The gap was narrowest in 2010 when rates were 310.3 per 100,000 in the least deprived areas and 615.1 in the most deprived areas. In the last year, the gap increased and now is at its widest level since 2007.

Figure 8.3

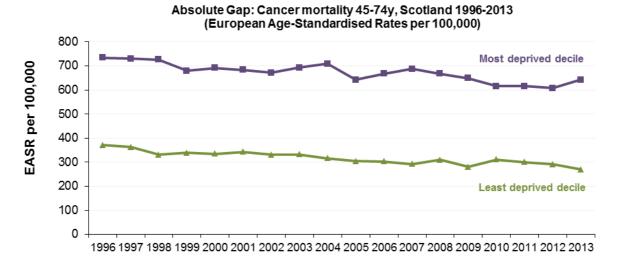


Table 8.1: Trends in cancer mortality (aged 45-74), 1997-2013

	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

Alcohol - first hospital admission aged under 75 years⁶

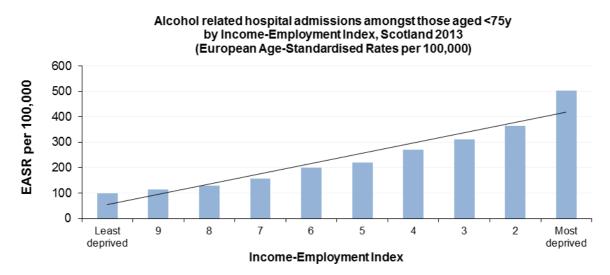
Trends in alcohol-related admissions

The hospital admission rate for alcohol-related conditions amongst those aged under 75 years has fallen over time, with an 18% decrease between 1996 and 2013 (289.8 and 236.8 cases per 100,000 respectively).

Inequalities in alcohol-related admissions, 2013

These types of admissions are more than five times as common in the most deprived areas of Scotland compared to the least (503.5 compared to 97.7 cases per 100,000).

Figure 9.1

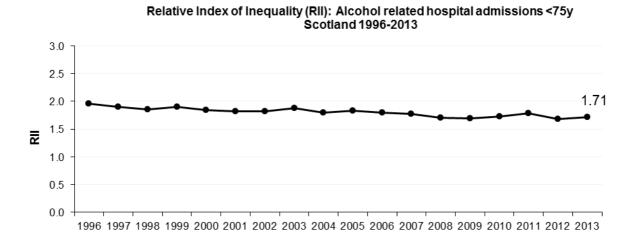


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⁶ Please note that the definition for this indicator has changed and that figures for previous years have been revised. More information can be found in Annex 2.

A general downward trend was observed in relative inequalities for alcohol-related admissions between 1997 and 2008 (RII declining from 1.90 to 1.70). Since then, there has been very little change in the RII figure (1.71 in 2013).

Figure 9.2



In 1997, alcohol-related admission rates were seven times higher in the most deprived areas compared to the least deprived. For the last seven years, rates have been around five times higher in the most deprived areas compared to the least deprived.

Trends in absolute inequalities

Absolute inequality in alcohol-related admissions has generally reduced over time, and, in 2012, was at its lowest level in the time series. Despite this trend there has been fluctuation, including a slight widening of the gap in the most recent year.

The reduction over the long term in both relative and absolute inequality is largely due to the fall in deaths in the most deprived areas, which have been reducing faster than those in the least deprived.

Figure 9.3

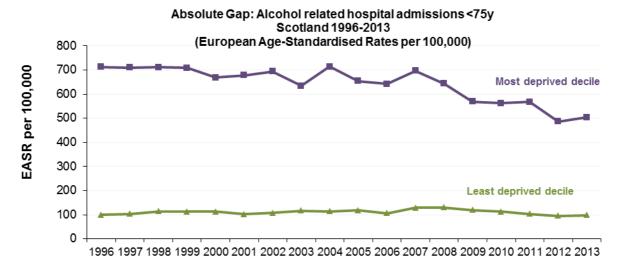


Table 9.1: Trends in alcohol-related hospital admissions (aged < 75), 1997-2013

Table 3.1. Treflus in alcohol-related hospital admissions (aged < 75), 1337-2015				
	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	

Alcohol - deaths aged 45-74 years

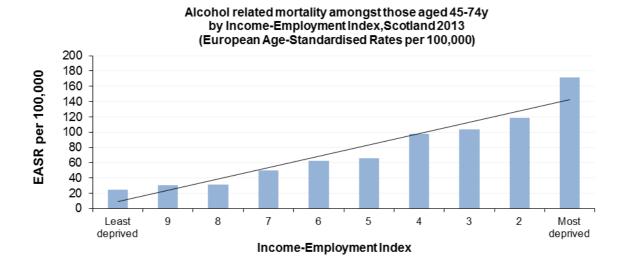
Trends in alcohol-related deaths

Alcohol-related deaths among those aged 45-74 years, which peaked at around 1,900 in 2006, have continued to fall. At 1,435 deaths - a rate of 73.0 per 100,000 - deaths in 2013 are at the lowest level in the reporting period.

Inequalities in alcohol-related deaths, 2013

Despite a continuing decline in alcohol-related deaths, the mortality rate in Scotland's most deprived areas is almost seven times higher than that observed in the least deprived (171.8 compared to 24.9 per 100,000 population).

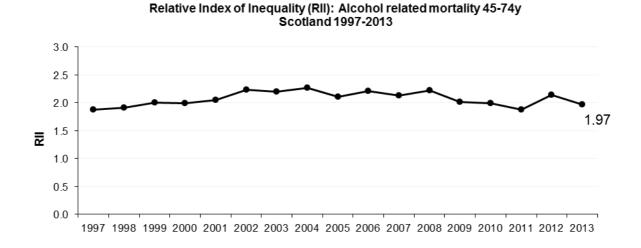
Figure 10.1



Trends in relative inequalities

Relative inequalities in alcohol related deaths increased between 1997 and 2002 (RII increasing from 1.88 to 2.23), remained at around this level until 2006 (ranging between 2.10 and 2.23) and have slightly reduced in the years since, despite another peak in 2012.

Figure 10.2



In 2013, alcohol-related deaths were seven times higher in the most deprived areas compared to the least deprived. 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.

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 the most deprived area deaths.

Despite occasional increases in the intervening years, most deprived area deaths have fallen since 2002. Following three years of consecutive decreases they are now, like absolute inequality levels, at the lowest level in the time series.

Figure 10.3

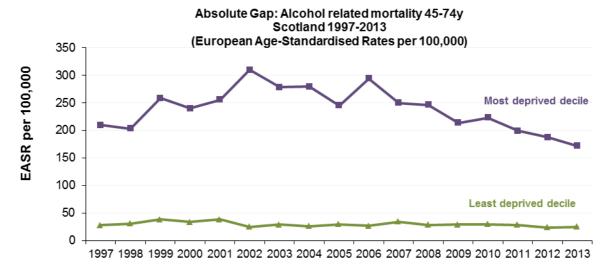


Table 10.1: Trends in alcohol-related deaths (aged 45-74), 1997-2013

Table 10.1: Trends in alcohol-related deaths (aged 45-74), 1997-2013					
	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		

All-cause mortality aged 15-44 years

Trends in all-cause mortality aged 15-44

The mortality rate amongst those aged 15-44 in Scotland has reduced from 118.3 per 100,000 in 2006 to 100.1 per 100,000 in 2013. Between 1997 and 2005, the mortality rate ranged between 109.3 and 122.0 per 100,000.

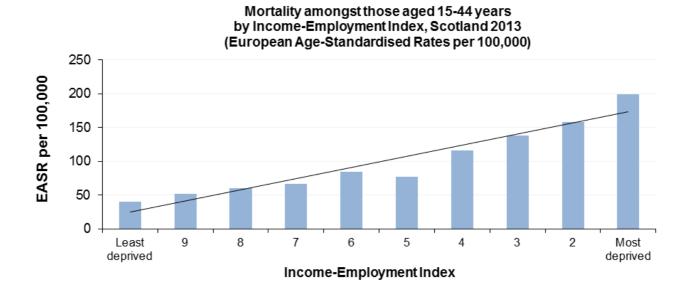
This means there was a total of 1,990 deaths of people aged 15-44 in Scotland in 2013, compared to 2,482 in 2006. The 1,990 deaths in 2013 included 354 probable suicides, 356 drug-related deaths and 35 deaths from assault.

While the rates of probable suicide and deaths from assault in this age group reached their lowest levels in 2013, drug-related death rates almost trebled between 1997 and 2008. In 2013, the drug-related death rate (17.9 per 100,000) is still higher than it was throughout the decade between 1997 and 2006, ranging from 8.9 to 17.1 per 100,000.

Inequalities in all-cause mortality aged 15-44, 2013

The death rate amongst people aged 15-44 years is five times higher in the most deprived areas (199.7 per 100,000) compared to the least deprived (40.1 per 100,000).

Figure 11.1



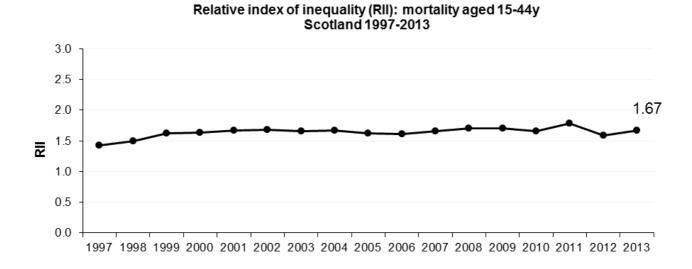
Trends in relative inequalities

Although there was a clear increase in relative inequalities between 1997 and 2001, there has been no clear trend in the years since despite some year-to-year fluctuations.

Relative inequalities peaked in 2011, before dropping sharply in 2012 to their lowest level since 1998. In 2013, relative inequalities increased such that RII is now in line with its level in 2001-2004 and similar to the levels observed in 2007-2010.

Since 1999, death rates have typically ranged between approximately five and six times higher in the most deprived areas compared to the least deprived.

Figure 11.2



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, with death rates of 199.7 and 40.1 per 100,000 respectively (a gap of 159.6 per 100,000).

The gap had ranged between 183.6 and 219.4 per 100,000 in the years between 1998 and 2011, and has reduced in the two most recent years, following a sharper reduction in death rates in the most deprived areas.

Figure 11.3

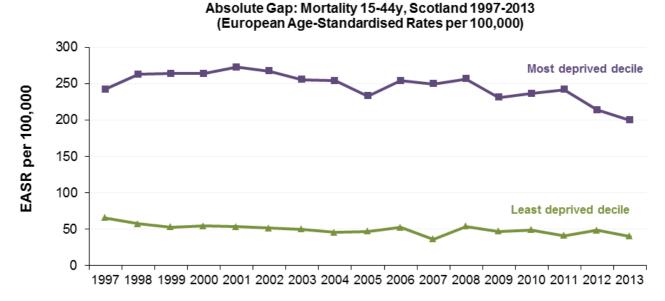


Table 11.1: Trends in all-cause mortality (aged 15-44), 1997-2013

	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

Table 11.2: Trends in deaths from assault, drug-related deaths and probable suicides, 1997-2013

	Deaths fr	rom assault	Drug related deaths		Probable suicides	
	Number	EASR per 100,000	Number	EASR per 100,000	Number	EASR per 100,000
1997	56	2.6	196	8.9	518	23.9
1998	65	3.0	227	10.6	526	24.4
1999	86	4.0	274	12.9	529	24.7
2000	60	2.9	268	12.7	541	25.6
2001	63	3.0	289	13.8	531	25.3
2002	76	3.6	345	16.7	539	25.7
2003	71	3.4	282	13.6	456	21.8
2004	78	3.8	311	15.2	475	22.7
2005	50	2.4	277	13.4	436	21.0
2006	83	4.0	350	17.1	435	20.9
2007	54	2.6	392	19.1	453	21.8
2008	53	2.5	477	23.3	480	23.4
2009	47	2.3	436	21.3	432	20.8
2010	54	2.6	384	18.9	423	20.5
2011	53	2.6	454	22.5	420	20.5
2012	37	1.9	416	20.8	375	18.3
2013	35	1.7	354	17.9	356	17.7

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.

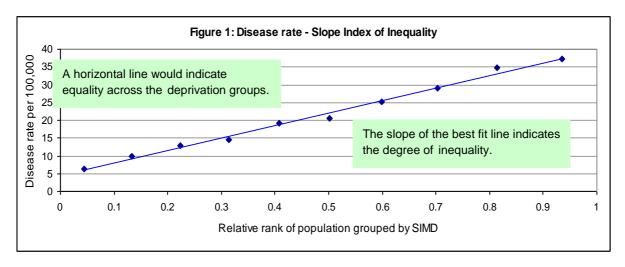
Information about different measures of inequality and their calculation was based on work done by the Scottish Public Health Observatory, available at: http://www.scotpho.org.uk/home/Publications/scotphoreports/pub_measuringinequalities.asp

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. 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 6,505 datazones in Scotland according to their deprivation score and then dividing them into deciles based on number of

datazones (so that those datazones ranked from 1 to 651 are in decile 1 and so on). Population-basing the deciles uses the same approach but also takes into account the population sizes involved. The 6,505 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 indicator), aggregate data is provided by National Records of Scotland for the all-cause 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 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 online⁷. National Records of Scotland have published detailed information on the quality of data on deaths⁸. 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.

Revisions and timeliness of report

Our general approach to revisions and release schedules is described at the following web address: http://www.scotland.gov.uk/Topics/Statistics/Browse/Health/TrendHealthOutcome/Results

For this year's publication, the low and healthy birthweight indicators could not be updated as the data would not be available until November 2015. Users will be consulted about the most appropriate time and method for the next release of these statistics.

Revised Healthy Life Expectancy data were supplied by ISD Scotland in February 2016 following quality assurance issues identified after the original release of this publication. Therefore, Healthy Life Expectancy sections of this report were revised in March 2016.

http://www.isdscotland.org/Products-and-Services/Hospital-Records-Data-Monitoring/http://www.isdscotland.org/Health-Topics/Cancer/Scottish-Cancer-Registry/Quality-Assurance/

 $[\]frac{8}{\text{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

Healthy Life Expectancy

<u>Source</u>: ScotPHO (using raw deaths data from the National Register of Scotland); Scottish Household Survey data on self-assessed health for adults aged 16+ years, Scottish Health Survey data for self-assessed health for those aged <16 years.

<u>Definition</u>: Healthy life expectancy (HLE) is defined as the number of years people can expect to live in good health. The difference between healthy and total life expectancy (LE) therefore indicates the length of time people can expect to spend not in good health.

HLE is calculated through a combination of life expectancy data and survey data on people's self-assessed health. The method used to calculated the Life Expectancy estimates is based on Chiang (II) methodology; the HLE calculation is based on the Sullivan method. The uncertainty around estimates of HLE are larger than those around life expectancy because relatively small samples are involved in the age and sex specific breakdowns of survey data required to calculate HLE.

In 2009, the format of the self-assessed health question (on which the life expectancy data is based) was changed to align with the European Union. The options for response changed from a three-point scale (Good, Fairly good, Not good) to a five point scale (Very good, Good, Fair, Bad, Very bad). Under the three-point scale, 'Good' and 'Fairly good' were categorised as 'healthy'. Under the five point scale only 'Very good' and 'Good' are categorised as 'healthy'. This has led to a major discontinuity in the series. For both men and women, there is a markedly lower estimate of HLE at birth from 2009 than previous years.

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

Source: National Records of Scotland.

<u>Definition</u>: 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 (2008-2014).

<u>Definition</u>: 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 of the Scotland population each year. In 2014, population data for 2013 was used as it was the latest available. 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 was added to the report this year. This takes a 'below average' WEMWBS score to be at least one standard deviation below the population mean, which equates to scores of 41 or lower in all years.

In order to improve the precision of estimates of mean and below average WEMWBS scores, data has been presented for two year combined periods in this report (2008/2009 to 2012/2013) for the first time, together with confidence limits around each estimate.

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

<u>Source</u>: NHS Information Services Division (ISD); SMR1/01 records (all inpatient and daycase discharges).

<u>Definition</u>: 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

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

<u>Definition</u>: 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

<u>Source</u>: NHS Information Services Division (ISD); Scottish Cancer Registry. <u>Definition</u>: 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

<u>Source</u>: NHS Information Services Division (ISD); Scottish Cancer Registry. <u>Definition</u>: 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).

<u>Definition</u>: 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.

<u>Definition</u>: 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.

<u>Definition</u>: 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'.

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