Socio-economic status or class

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Published version

ALLMARK, Peter and GRIMSLEY, Mike (2010). Socio-economic status or class. In: ALLMARK, Peter, SALWAY, Sarah and PIERCY, Hilary, (eds.) Life and health: an evidence review and synthesis for the Equality and Human Rights Commission's triennial review. Sheffield, Equality and Human Rights Commission.

Chapter 4: Socio-economic status or class

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Acknowledgement: Ben Anderson made helpful comments on an earlier draft.

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4.1 Key messages

What are the inequalities? How persistent and how worrying are they?
Class is well established as an indicator of inequality in both Health and Life indicators. In general, lower social class is related to lower life expectancy and poor health outcomes. The most recent Government report that outlines this is the Marmot Review. Similar patterns of inequality exist in England, Wales and Scotland.

LIFE
Life expectancy for all classes and both sexes has improved since 1972 in England, Wales and Scotland. Throughout this period, however, the gap in life expectancy has increased. Whilst men and women in England & Wales in social class I had improvements in life expectancy at birth of 8.1 and 6.1 years respectively, the equivalent figures for social class V are 6.2 and 3.9 years.[3] There are variations within this, for example, men in social class IIIn (non-manual) fared very well. The general picture is one of improving life expectancy for all but an increasing gap between the richest and the poorest. In the most recent period of change measured on the longitudinal study (from 1997-2001 to 2002-05) the increase in life expectancy was only 0.1 years for social class V; for social class I it was 2.5 years. In Scotland, data is available only on the basis of region. They show a pattern of mortality being clearly linked to an area's deprivation level.

Inequality along social class lines is found for cardiovascular disease mortality. In the period 1997-99, a man from social class V was 1.86 times more likely to die of the disease than a man from social class I. Women in general were less likely to die of cardiovascular disease but women in social class V were 2.27 times more likely to do so than women in social class I.

[3] These categories are explained in the main text.

For cerebrovascular disease, however, there is no statistically significant link in mortality rates by class although the data in men show a trend towards a social gradient. More recent data from England suggest that the gap in mortality rate due to circulatory disorders in general, a large part of which is made up of cardiovascular and cerebrovascular disorders, is declining.

Cancer mortality overall is only slightly related to class overall but there are some patterns of inequality. Lung cancer mortality in men and women, and cervical cancer mortality in women are both higher in lower social classes.

The risk of suicide is strongly related to gender; men are more likely to commit suicide. However, there is also correlation with deprivation. The suicide rate in the most deprived areas of Scotland, Wales and England is significantly higher for both sexes.

Data on the accident mortality rate for England & Wales have not been disaggregated by deprivation or class. There are other proxy indicators but these do not suggest a particularly strong relationship between the rate and deprivation. There is more information available from Scotland. This shows a clear and statistically significant relationship between deprivation and accident mortality. Those in the most deprived areas of Scotland have an accident mortality rate approximately double that of the least deprived.

HEALTH

Outcome

Self-reporting of poor current physical health is correlated to deprivation or to class in England, Wales and Scotland. In Scotland, the odds of those in the lowest quintile of deprivation (by area) self-reporting poor current health was eight times higher for men and 2.5 times higher for women. There is also a relationship between class or deprivation and healthy life expectancy. In England in the period 1994-9 the difference in healthy life expectancy between the highest and lowest deciles of deprivation was around 16 years for both men and women. The Office for National Statistics is currently

collecting this data on an experimental basis at a local level so more up-to-date figures should be available soon. In 2007-8, healthy life expectancy for men in Scotland was 57.5 years in the most deprived areas and 68.0 years in Scotland overall. The equivalent figures for women are 61.9 years and 70.5 years.

The proportion of people who report: poor current health; longstanding health problem or disability (England & Wales) and longstanding illness (Scotland) [LLTI] is strongly associated with socioeconomic status. Figures for Great Britain overall show that LLTI is associated with social class; those in routine or manual backgrounds and those who are long-term unemployed are more likely to have an LLTI.

Poor mental health is associated strongly with socioeconomic status; manual workers are slightly more likely to have mental illness than non-manual; those with lowest income are much more likely to have mental illness than those with the highest income. The route of causation here is unclear; living on a low income may increase the likelihood of developing mental illness, but mental illness may also reduce the likelihood of being able to progress to and work in high-earning posts. However, it remains a serious inequality whether it is the result of those with mental illness becoming poor or those in poverty becoming mentally ill.

Process

The data available suggest there is no class-based inequality shown in the perception of treatment with dignity.

No class-based inequality is shown in the limited (Wales only) data on A&E attendance - this finding is at odds with the finding on accident mortality.

No class-based data are available on support for nutritional needs in hospital.

Autonomy

Low social class is directly related to several but not all markers of unhealthy lifestyle: cigarette smoking, exercise and diet but not overweight and obesity.

Smoking: there are clear social gradients in smoking prevalence in England, Wales and Scotland. In England, the percentages of men and women in the highest quintile earners reporting 'current' smoking status are 15% and 13%; in the lowest quintile, the respective figures are 40% and 32%. The data relating to area deprivation and smoking are slightly less clear in England but the pattern is clear in Scotland and Wales. For example, in Wales, 15% of managerial and professional households report a smoker against 40% in the long-term unemployed and those who've never worked. In Scotland smoking patterns vary by NS-SEC. Levels are highest in men and women in semi-routine and routine households and lowest among those in managerial and professional households. For example, amongst men, 36% of the former are current smokers against 17% of the latter; the equivalent figures for women are 38% versus 16%. Similar patterns are seen in relation to household income quintile and Scottish Index of Multiple Deprivation; for example, smoking levels in the most deprived areas are more than double those in the least deprived for both men and women.

Alcohol: In England, there is a slight social gradient in those drinking more than four units and more than eight units on the heaviest drinking day in the past week. The gradient is in inverse relation to household income quintile; those in the highest income quintile have more heavy drinkers than those in the lowest.

In women this pattern is lost entirely. In terms of the number of days on which people drank alcohol in the last week, men in the highest quintile drank more regularly than those in the lowest (3.2 days versus 1.7 days). Those in the lowest quintile were far more likely to have a week without drink (46%) than those in the highest (15%). In women, a similar gradient is present; the richest drink more than twice as often as the poorest. The gradient is less steep then in men, however.

In Wales, drinking above guideline levels is highest in the managerial and professional classes; binge drinking is highest in the same class and in routine and manual classes. There is no clear gradient in relation to binge drinking however; drinking above guidelines is most common in the least deprived areas and least common in the most deprived areas. Binge drinking is fairly level through all areas.

In Scotland, among women, levels of weekly consumption are associated with socioeconomic classification, household income and area deprivation. Levels of consumption are highest amongst the managerial and professional, highest income and least deprived group. Among men, there was no clear association apart from that men in the most deprived areas are more likely to drink above 50 units a week.

In terms of daily drink levels in Scotland, there is no clear relationship between those drinking above recommended limits or binge drinking (over double the daily recommended limit) by SN-SEC in men or women. However, in terms of household income, for men, daily consumption is directly related to household income such that the poorest drink least. The pattern for binge drinking is similar. Mean units drunk were also highest among those with higher incomes (6.8 units in the highest income group compared to 5.5 units in the lowest). A similar pattern is seen in women, with the highest income quintile more likely to drink above three units than the lowest; however, binge drinking (above six units) has no such pattern. Area deprivation was significantly associated with daily drinking patterns for women (the most deprived least likely to drink above three units) but not for men.

Exercise: In England & Wales there is little or no association between physical fitness and measures of class, or between self-perceived levels of activity and class.

In Scotland there are differences in the proportion meeting activity recommendations by NS-SEC for both men and women. The pattern is not one of a straightforward gradient, however. The relationship by household

income is clear and linear. 50% of men and 40% of women in the highest income quintile households met the recommendations compared to 35% and 28% in the lowest. Men and women in the most deprived quintile of areas of Scotland were least likely to have met the activity recommendations. For men, though, the pattern is not linear as those in the third quintile were most likely to have met them. For women, the gradient can be seen between across all deprivation quintiles.

Diet: In England, for both men and women there is a social gradient in terms of the mean number of portions of fruit and vegetables eaten daily aggregated by equivalised household income. For men the figures are 4.1 portions for the highest quintile and 3.0 for the lowest; for women, the equivalent figures are 4.2 and 3.4. The differences are statistically significant.

For Wales, there is a social gradient in relation to consumption of fruit and vegetables; managerial and professional classes are more likely to meet the guidelines than routine and manual workers (40% versus 32%). Also, those in the most deprived areas are least likely to eat five portions or more of fruit and vegetables daily (30%); those in the second least deprived quintile of areas are the most likely to eat the recommended amount (40%) with those in the least deprived areas closely behind (39%).

In Scotland, a clear gradient in the proportion of the population eating five or more portions of fruit and vegetables a day is shown by all the measures of class in Scotland: NS-SEC, household income and deprivation of area. The relationship is one of the poorest being least likely to eat five or more portions. The inverse relationship exists for likelihood of eating no fruit and vegetables. The relationship exists for both sexes. For example, 25% of men in the least deprived quintile consumed the five portions or more; 9% of men in the least deprived quintile. The corresponding figures for women are 31% and 16%.

BMI and obesity: In England, income quintile is significantly related to the odds of being in the most-at-risk categories (obese or seriously underweight). However, the pattern works in opposite directions in men and women.

Women in the lower income quintiles are more likely to be in the at-risk categories than women in the highest income quintile; men in the lower income quintiles are significantly less likely to be in the at-risk categories compared with men in the highest income quintile. However, men in the fourth lowest income quintile were the most likely to be obese. The same pattern can be seen in relation to waist measurement. In men, the fourth lowest quintile (i.e. second poorest) have the highest percentage with raised waist circumference; the fifth lowest quintile (i.e. poorest) have the lowest. In women, the social gradient between the richest, who have the lowest chance of raised waist circumference, and the poorest, who have the highest, is straight.

The Welsh Health Survey disaggregates obesity figures by class and by sex but not by both together. As such, it is not possible to see whether a pattern similar to that in England exists. The Welsh data show that adults in routine manual work are more likely to be obese than those in professional and managerial work. There is also a clear social gradient in relation to obesity and index of multiple deprivation. Those in the most deprived areas of Wales are far more likely to be obese (27%) than those in the least deprived areas (16%).

In Scotland, there is little relationship between class and obesity. For men only, household NS-SEC is associated with being overweight or obese. Those living in small employer and own account household and those in semi-routine or routine households are more likely to be overweight than those in managerial and professional household. The pattern is statistically significant but not that striking. For women, being overweight or obese was associated with SIMD quintile. Women living in the most deprived quintiles had a significantly increased risk of being overweight or obese. The social gradient is steeper in relation to obesity and morbid obesity. 36.9% of women in the most deprived quintile were obese or morbidly obese; the equivalent figure for the least deprived quintile is 21.9%.

Are there any emerging trends?

The general trend is of improvement in life expectancy and health; the social gradient however remains the same or is slightly increasing.

What are the causes?

The main information available in this document relates to lifestyle. The clearest differences here are in levels of smoking and consumption of fruit and vegetables: poorer people smoke more and eat less fruit and vegetables. The differences follow a social gradient. There is a slight inverse gradient in relation to drinking. These differences might be sufficient to explain the inequalities in smoking-related disease, such as lung cancer and cerebrovascular disease. Lifestyle choice is a less plausible candidate to explain suicide and mental health problems. Neither do the data explain the difference in lifestyle choice.

Social inequality itself has been hypothesized as a cause of ill-health physically and mentally by, for example, Wilkinson (Wilkinson and Pickett 2009).

How might change be measured?

Most of the indicators identified by the Equality and Human Rights Commission are useful; arguable exceptions are 3.6 Non-natural death in institutions and 3.2 Nutritional needs in hospital.

Additional useful indicators are: Healthy life expectancy; access to healthcare (e.g. key preventive services).

Data quality and quantity

Most of the key indicators of Life and Health can be disaggregated and are meaningful by socio-economic status, or class. Death certificates include occupation of the deceased, making it possible to disaggregate some of the Life indicators. The Census used the NS-SEC measure of class; as such, many of the Health indicators can be disaggregated by class although the pattern is variable. Geographical area is often used as a proxy for individual/household class in analyses of health inequalities.

The measure of class used in official statistics changed in 2001. This creates some problems in interpretation of longitudinal data collected before and after that date. As a result, the Census Longitudinal Study continues to use the previous measure (RGSC) as this aids historical comparison.

4.2 SES Evidence

The evidence is readily available in the main as class has been monitored against health and life indicators for some time. The most important recent review of evidence is the Marmot Review (Marmot Review 2010).

The chief method for measurement of social class has undergone an important change recently. From 1911 to 2001 the method used was the Registrar General's Social Class (RGSC) derived from the individual's current or former occupation. This method grades classes in categories I-V with professional at the top and unskilled at the bottom.

REGISTRAR GENERAL'S SOCIAL CLASS – EXAMPLES OF OCCUPATIONS

Non manual		
I	Professional	Doctors, lawyers, chartered accountants, professionally qualified engineers
II	Intermediate	Managers, school teachers, journalists
IIIN	Skilled non-manual	Clerks, cashiers, retail staff
Manual		
IIIM	Skilled manual	Supervisors of manual workers, plumbers, electricians, bus drivers
IV	Partly skilled	Warehousemen, security guards, machine tool operators, care assistants
V	Unskilled	Labourers, cleaners and messengers

Source: (White, van Galen and Chow 2003)

This was replaced in 2001 by the National Statistics Socio-economic Classification (NS-SEC) based on a combination of occupation, ownership and control. It can be presented at different levels of aggregation (Walby, Armstrong and Humphreys 2008) p.34:

The eight class version is:

1 Higher managerial and professional occupations

1.1 Large employers and higher managerial occupations

1.2 Higher professional occupations

2 Lower managerial and professional occupations

3 Intermediate occupations
4 Small employers and own account workers
5 Lower supervisory and technical occupations
6 Semi-routine occupations
7 Routine occupations
8 Never worked and long-term unemployed.

An alternative method is the Standard Occupational Classification 2000 (SOC2000) which consists of a list of occupational groups that can be further sub-divided.

At present, the NS-SEC is the approach adopted by Office for National Statistics in relation to health data. However, it uses other schema for other data; for example, the SOC2000 is used for employment data. Furthermore, the Census Longitudinal Study uses the older RGSC in order to ensure continuity of data.

There is at least one other measure commonly used. Poverty is often centred in particular areas of the country. These areas can be identified and outcomes compared with other areas of the country. This gives a measure of inequality in, for example, health outcomes. There is good quality information collected in the three nations on this basis; where relevant, we have included it.

4.3 Life: main indicators - commentary

4.3.1 Period life expectancy at birth, ages 20, 65 and 80

ENGLAND

These data are collected in General Register Office Census Longitudinal Study (for England & Wales).

Table 1 Life Expectancy at birth and at age 65 by social class, men and women, England & Wales 2002-2005

		Years				Years
2002-2005 MEN				**2002-2005 WOMEN**		
Social Class	Life exp.	95% CI (+/-)		**Social Class**	Life exp.	95% CI (+/-)
	At birth				**At birth**	
I	80.0	1.0		I	85.1	1.1
II	79.4	0.5		II	83.2	0.5
IIIN	78.4	0.7		IIIN	82.4	0.5
IIIM	76.5	0.4		IIIM	80.5	0.5
IV	75.7	0.6		IV	79.9	0.6
V	72.7	1.1		V	78.1	1.2
unclassifie	73.8	1.1		unclassifie	77.9	0.9
All men	77.0	0.2		All women	81.1	0.2
Non-manua	79.2	0.4		Non-manua	82.9	0.3
Manual	75.9	0.3		Manual	80.0	0.3
Difference	*3.3*	*0.5*		*Difference*	*2.9*	*0.5*
	At age 65				**At age 65**	
I	18.3	0.6		I	22.0	0.9
II	18.0	0.3		II	21.0	0.3
IIIN	17.4	0.5		IIIN	19.9	0.3
IIIM	16.3	0.3		IIIM	18.7	0.4
IV	15.7	0.4		IV	18.9	0.3
V	14.1	0.7		V	17.7	0.6
unclassifie	15.1	0.8		unclassifie	17.6	0.5
All men	16.6	0.2		All women	19.4	0.2
Non-manua	17.9	0.3		Non-manua	20.5	0.2
Manual	15.9	0.2		Manual	18.6	0.2
Difference	*2.0*	*0.3*		*Difference*	*1.9*	*0.3*
Source: ONS Longitudinal Study				*Source: ONS Longitudinal Study*		
CI Confidence interval				CI Confidence interval		

Source: Office for National Statistics: Longitudinal Survey

The table above indicates that life expectancy at birth and age 65 differs by class for men and women. This difference follows a gradient such that social class I have the highest and social class V (plus the unclassified) have the lowest life expectancy. In the latest period, 2002-5, life expectancy at birth for men was 80 years for social class I and 72.7 years for social class V. The equivalent figures for women are 85.1 and 78.1. At age 65 the life expectancy for the same two social classes for men was 18.3 and 14.1 years and for women, 22 and 17.7. The confidence intervals for these results indicate that the differences by social class are statistically significant.

Table 2 Change in life expectancy at birth and at age 65 by social class, men, England & Wales

Social Class	Change between 1972-76 and 2002-05 at birth		Social Class	Change between 1972-76 and 2002-05 at age 65
I	8.1		I	4.3
II	7.4		II	4.7
IIIN	8.9		IIIN	4.9
IIIM	6.5		IIIM	4.1
IV	7.4		IV	3.5
V	6.2		V	2.5
unclassified	16.3		unclassified	4.3
All men	7.7		All men	4.4
Non-manual	8.0		Non-manual	4.8
Manual	6.8		Manual	3.8

Source: Office for National Statistics: Longitudinal Survey

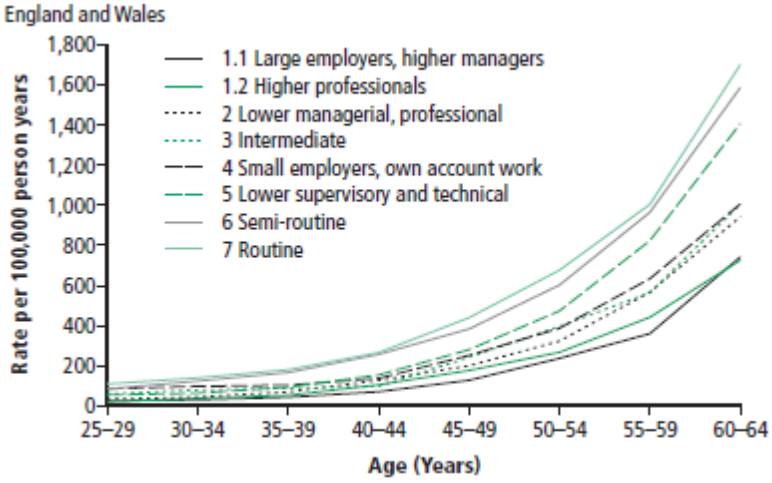
Table 3 Change in life expectancy at birth and at age 65 by social class, women, England & Wales

Social Class	Change between 1972-76 and 2002-05		Social Class	Change between 1972-76 and 2002-05	
	at birth			at age 65	
I	6.1		I	2.9	
II	6.1		II	3.8	
IIIN	4.1		IIIN	2.1	
IIIM	5.3		IIIM	2.4	
IV	4.5		IV	2.0	
V	3.9		V	1.1	
unclassified	7.8		unclassified	2.1	
All women	5.8		All women	3.1	
Non-manual	5.2		Non-manual	3.0	
Manual	4.8		Manual	2.0	
			Source: ONS Longitudinal Study		

Source: Office for National Statistics Longitudinal Study

The tables above show the change in life expectancy at birth and age 65 in the period 1972-6 and 2002-5. Leaving aside the unclassified, the greatest improvement for men has been for social class III non-manual; the least improvement has been for social class V. Again these differences are statistically significant. The improvement in life expectancy at birth between the data collection periods 1972-76 and 2002-05 are, for social class I, 8.1 years; social class IIIN 8.9 years; and social class V 6.2 years. For women, those in social classes I and II have the most benefit, 8.1 years, and those in social class V the least, 3.9 years. For social class V there are indications elsewhere that life expectancy is entering a period of decline in real terms; the evidence shown here certainly makes clear that the gap is widening. In the most recent period of change measured on the longitudinal study (from 1997-2001 to 2002-05) the increase in life expectancy was only 0.1 years; for social class I it was 2.5 years.

Figure 1 Age-specific mortality rate by five year age group and NS-SEC: men aged 25-64, 2001-03: death registrations



Source: White et al (2007) HSQ: 36

White et al (White et al. 2007) take data from four sources: the 2001 Census, the mid-year population estimates for 2001-2003, deaths of men aged 26-64 occurring in 2001-2003, and the Longitudinal Study. They produce the graph above, which illustrates the same trend using the RGSC criteria.

Figure 2 Indicators of poverty and life expectancy by region in England

Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	33.6	31.7	27.2	16.6	27.4	6.2	28.5	5.9	9.2
2	Children in poverty	2005	%	22.4	26.0	25.0	23.0	19.5	24.8	16.9	33.9	15.4	16.9
26	Life expectancy - male[4]	2004-06	years	77.3	75.8	75.8	76.6	77.3	76.6	78.3	77.4	78.5	78.5
27	Life expectancy - female[4]	2004-06	years	81.6	80.1	80.3	81.0	81.3	81.1	82.3	82.0	82.4	82.7

Key

GREEN = significantly better than national average

AMBER = not significantly different from national average

RED = significantly worse than national average

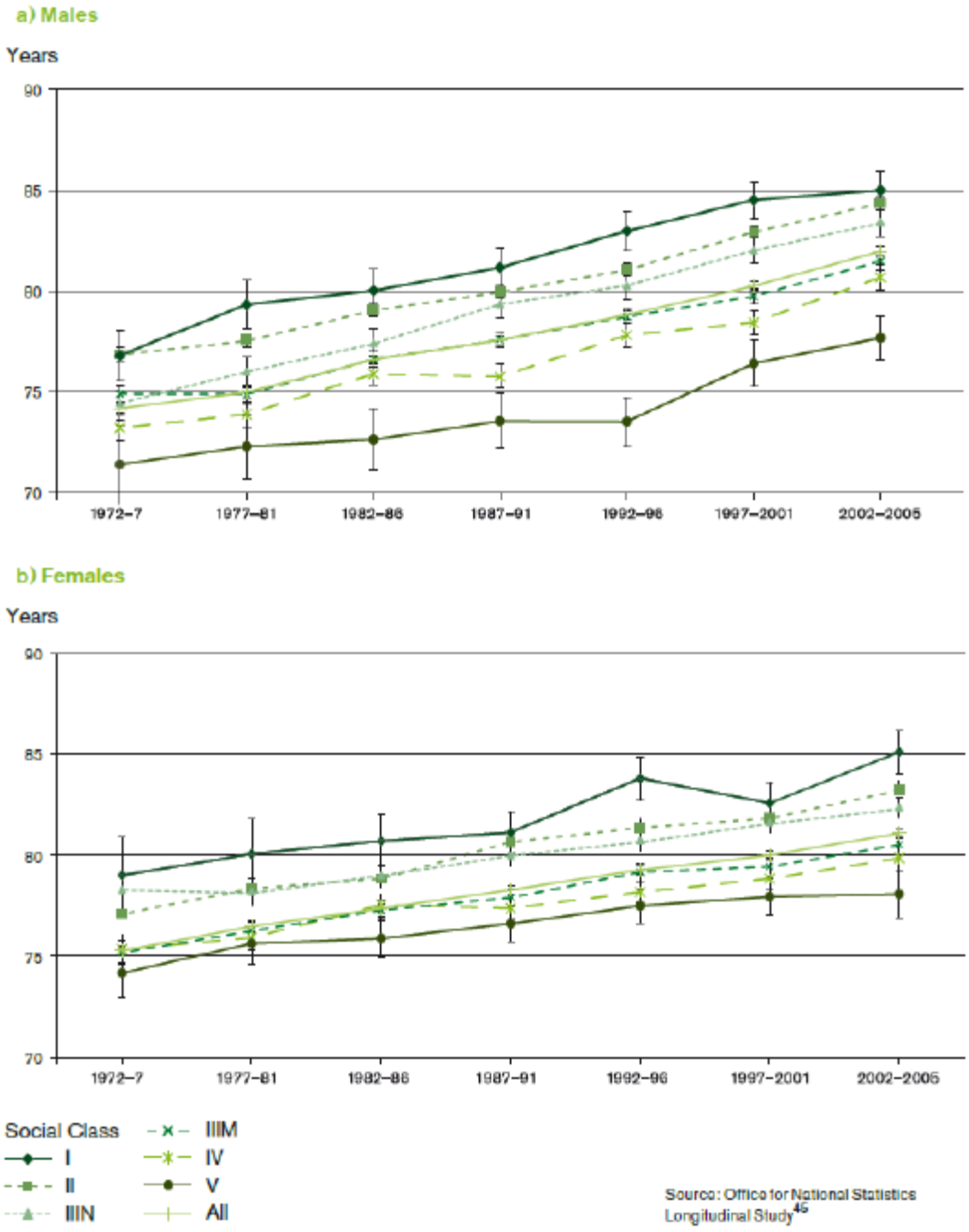
NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

Inequality in life expectancy by class can also be illustrated by region. The table above shows that indicators of inequality tend to cluster in regions. For example, the North East has high levels of deprivation and children in poverty alongside low male and female life expectancy.

The relationship between life expectancy and class is one that has been examined extensively. For example, in England, data have been collected that compare life expectancy between England as a whole and that in the so-called Spearhead Group of most deprived quintile of Local Authority areas. These data are published by the Department of Health at http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_107609. There are also many reports that set out Office for National Statistics data in new forms.

Figure 3 Life expectancy at birth by social class, a) males and b) females, England & Wales, 1972-2005



Source: Office for National Statistics - Marmot Review

For example, the Marmot Review has the following graph of life expectancy by social class and gender for England & Wales, 1972-2005. Both graphs show a clear upward trend in life expectancy for all classes. The graphs also show that some groups do better than others, social class I and IIIN doing

well, social class V relatively badly, with the gap between the highest and lowest social classes widening slightly over the period for both men and women.

Thomas et al (BMJ forthcoming) looked at changes in area-based inequality in life expectancy over the period since 1921. They found geographical inequality in mortality has increased and continues to do so. Assuming this geographical inequality reflects socio-economic difference, the implication is that class-based inequality in mortality has increased and still does so.

4.3.1 Period life expectancy at birth, ages 20, 65 and 80

SCOTLAND

The *Scotland Overview Report* gives the following figures for male life expectancy in Scotland with comparisons within areas and across nations.

Table 4 Male Life Expectancy at birth by area

	Average life expectancy	Number of areas	Worst area	Best area	90% of areas are between these values[2]	
Scotland (2001-2005)	73.9					
England (2003-05)	76.9					
United Kingdom	76.2					
Republic of Ireland (2003)	75.8					
Scottish NHS Boards (2001-2005)		14	71.5	76.1		
Scottish CHPs (2001-2005)		40	67.9	77.3	69.0	76.4
Scottish intermediate zones (2001-2005)[1]		1,199	59.6	87.0	66.9	80.1
English LAs (2003-05)		395	72.5	82.2	74.6	79.5

Source: *Scotland Overview Report*

The range is striking, with Scotland comparing badly with other UK countries and Ireland; and within Scotland, various markers of region show large differences in life expectancy, with the worst intermediate zone having a life expectancy of 59.6 against the best having 87.0 years. The intermediate zones are small, containing between 2,500 to 6,000 people; and life expectancy data are not available for all. It is probably more meaningful, therefore, to look at the 90% values where, nonetheless, large differences remain. The equivalent figures for women are as follow:

Table 5 Female Life Expectancy at birth by area

	Average life expectancy	Number of areas	Worst area	Best area	90% of areas are between these values[2]	
Scotland (2001-2005)	79.1					
England (2003-05)	81.1					
United Kingdom	80.6					
Republic of Ireland (2003)	80.8					
Scottish NHS Boards (2001-2005)		14	77.8	81.3		
Scottish CHPs (2001-2005)		40	75.1	81.2	76.4	81.0
Scottish intermediate zones (2001-2005)[1]		1,202	71.1	90.1	74.5	84.6
English LAs (2003-05)		395	78.1	86.2	79.2	83.0

Source: *Scotland Overview Report*

Women's life expectancy in Scotland is higher than that of men. However, Scottish women fare worse than women in the rest of the UK and Ireland. There is a social gradient, as for men, but it is slightly less steep.

4.3.2 Cardiovascular disease mortality

ENGLAND

These data are not collected in the General Register Office Census Longitudinal Study (for England & Wales). However, White et al (White, van Galen and Chow 2003) have taken data from the study and combined them with information on occupation taken from death certificates. They have then calculated directly age-standardised mortality rates (DSRs) due to various diseases per 100,000 person years at risk, using the WHO European Standard Population as the reference. The DSR allows us to compare the mortality rate between the various classes making allowance for any differences in the age profiles of each grouping. This gives us the following table for ischaemic heart disease:

Table 6 Trends in mortality from ischaemic heart disease by social class 1986-1999, males aged 35-64, directly age-standardised death rates (DSR) per 100,000 person years, with 95% confidence intervals (CI)

MALE

Social Class	DSR (95% CI)			% Change		
	1986–92	1993–96	1997–99	1986–92 to 1993–96	1993–96 to 1997–99	1986–92 to 1997–99
Ischaemic Heart Disease (ICD-9 codes 410–414)						
I&II	160 (142–181)	97 (79–119)	90 (69–116)	–40	–7	–44
IIIN	162 (135–194)	117 (88–155)	117 (85–160)	–28	0	–28
IIIM	228 (210–247)	159 (139–181)	141 (120–164)	–30	–11	–38
IV&V	270 (245–299)	215 (184–250)	167 (137–204)	–21	–22	–38
Ratio IV&V: I&II	1.69	2.22	1.86			
Non-Manual	162 (146–179)	105 (89–124)	100 (82–123)	–35	–4	–38
Manual	243 (228–259)	179 (162–197)	150 (133–169)	–27	–16	–38

FEMALE

Social Class	DSR (95% CI)			% Change		
	1986–92	1993–96	1997–99	1986–92 to 1993–96	1993–96 to 1997–99	1986–92 to 1997–99
Ischaemic Heart Disease (ICD-9 codes 410–414)						
I&II	31 (23–41)	21 (13–32)	22 (13–36)	–33	6	–29
IIIN	44 (32–59)	35 (23–54)	30 (17–51)	–20	–15	–32
IIIM	58 (49–70)	46 (35–60)	41 (30–57)	–22	–10	–30
IV&V	74 (61–90)	48 (34–67)	50 (35–73)	–35	6	–32
Ratio IV&V: I&II	2.38	2.29	2.27			
Non-Manual	36 (29–44)	27 (20–37)	26 (18–38)	–25	–3	–27
Manual	65 (57–74)	46 (37–57)	45 (35–57)	–29	–3	–31

Source: White et al 2003 HSQ

The table shows a) that in this period men had far higher mortality rates from Ischaemic Heart Disease than women and b) that there is a social gradient in mortality rate, with lower social classes having higher rates. In men the DSR in 1997-9 was 90 for social class I and II, and 167 for social class IV and V. The findings are statistically significant. Women in general were less likely to die of cardiovascular disease but women in social class IV and V were 2.27 times more likely to do so than women in social class I and II.

The data presented highlights the fact that despite reductions in the DSR across all class groupings over the period 1986 -1999, that the social gradient has persisted, and for men the gap between social classes I and II and social classes IV and V has widened slightly.

In relation to cerebrovascular disease, White et al (2003) have the following figures:

Table 7 Trends in mortality from cerebrovascular disease by social class 1986-1999, males aged 35-64, directly age-standardised death rates (DSR) per 100,000 person years, with 95% confidence intervals (CI).

MALE

Social Class	DSR (95% CI)			% Change		
	1986–92	1993–96	1997–99	1986–92 to 1993–96	1993–96 to 1997–99	1986–92 to 1997–99
Cerebrovascular disease (ICD-9 codes 430–438)						
I&II	29 (22–38)	22 (13–37)	12 (6–24)	–22	–44	–56
IIIN	28 (18–43)	17 (8–35)	13 (5–33)	–39	–26	–54
IIIM	33 (27–41)	30 (22–40)	24 (16–35)	–10	–20	–28
IV&V	39 (30–51)	45 (32–63)	32 (20–50)	16	–30	–18
Ratio IV&V: I&II	1.34	2.05	2.67			
Non-Manual	28 (22–36)	20 (13–29)	12 (7–21)	–31	–37	–56
Manual	35 (30–41)	35 (28–44)	27 (20–36)	0	–24	–24

FEMALE

Social Class	DSR (95% CI)			% Change		
	1986–92	1993–96	1997–99	1986–92 to 1993–96	1993–96 to 1997–99	1986–92 to 1997–99
Cerebrovascular disease (ICD-9 codes 430–438)						
I&II	14 (9–21)	8 (4–16)	18 (10–33)	–46	133	26
IIIN	21 (14–33)	14 (7–28)	9 (3–24)	–32	–38	–58
IIIM	17 (12–24)	24 (15–37)	22 (14–35)	37	–8	25
IV&V	33 (24–44)	22 (13–36)	19 (10–36)	–33	–12	–41
Ratio IV&V: I&II	2.36	2.75	1.06			
Non-Manual	17 (13–23)	11 (7–18)	14 (8–23)	–33	21	–19
Manual	23 (19–29)	22 (16–30)	21 (14–30)	–6	–5	–10

Source: White et al 2003 HSQ

The table shows a slight social gradient in men but not in women; and in both cases, the 95% confidence intervals are such that the findings are not statistically significant.

The Health Profile of England uses more recent data to examine death rates by area.

Table 8 Indicators of poverty and life expectancy (ischaemic heart disease and cerebrovascular disease) by region in England

Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	33.6	31.7	27.2	16.6	27.4	6.2	28.5	5.9	9.2
2	Children in poverty	2005	%	22.4	26.0	25.0	23.0	19.5	24.8	16.9	33.9	15.4	16.9
30	Early deaths: heart disease & stroke	2004-06	r per 100,000	84.2	99.8	102.2	90.5	84.6	90.7	72.9	89.0	70.2	69.5

Key

GREEN = significantly better than national average

AMBER = not significantly different from national average

RED = significantly worse than national average

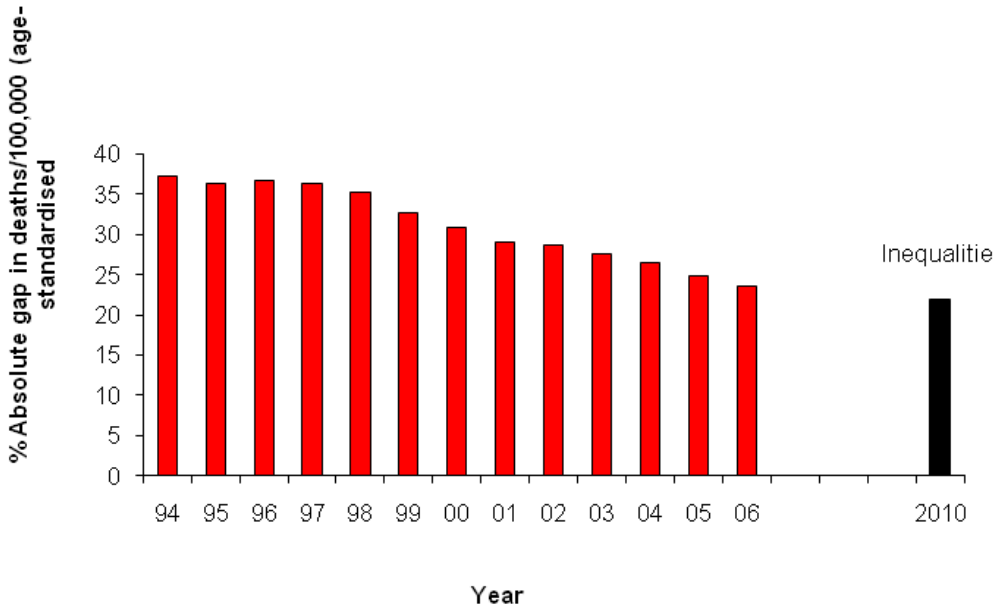
NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

The table reproduced above shows that early death rates due to heart disease and stroke are significantly higher in areas with significant levels of deprivation. As the figures for cerebrovascular disease and heart disease are conflated, they do not show whether the pattern noted in White et al's (2003) work is repeated; that is, we cannot tell whether heart disease mortality is related to class whilst cerebrovascular disease is not. However, the data here add evidence to the claim that cardiovascular disease mortality is class biased.

Similar evidence can be obtained from data comparing deaths due to circulatory disease in the most deprived 'Spearhead' areas of England and the non-Spearhead group. This is illustrated in the following graph.

Figure 4 Absolute gap in death rates from ischaemic heart disease, cerebrovascular disease and all other diseases of the circulatory system, between the Spearhead group and the population as a whole, people aged under 75, 1993 to 2007, England, with inequalities target



Source: Office for National Statistics 2009

The graph above shows that there is inequality in the death rate due to all circulatory diseases between the Spearhead group and the population as a whole in England, aged under 75. That gap was 37.2% in 1994 and 23.5% in 2006. As such, it is on a downward trend towards a 22% target set in 2006 to be met by 2010. The 2010 target will be calculated based on a 3 year rolling average from 1st January 2009 to 31st December 2011, meaning that final data on this target will not be published until spring 2012 at the earliest.

4.3.2 Cardiovascular disease mortality

WALES

There are no separate figures for Wales.

4.3.2 Cardiovascular disease mortality

SCOTLAND

Cardiovascular disease mortality for Scotland is available by decile of deprivation using the Scottish Index of Multiple Deprivation (SIMD).

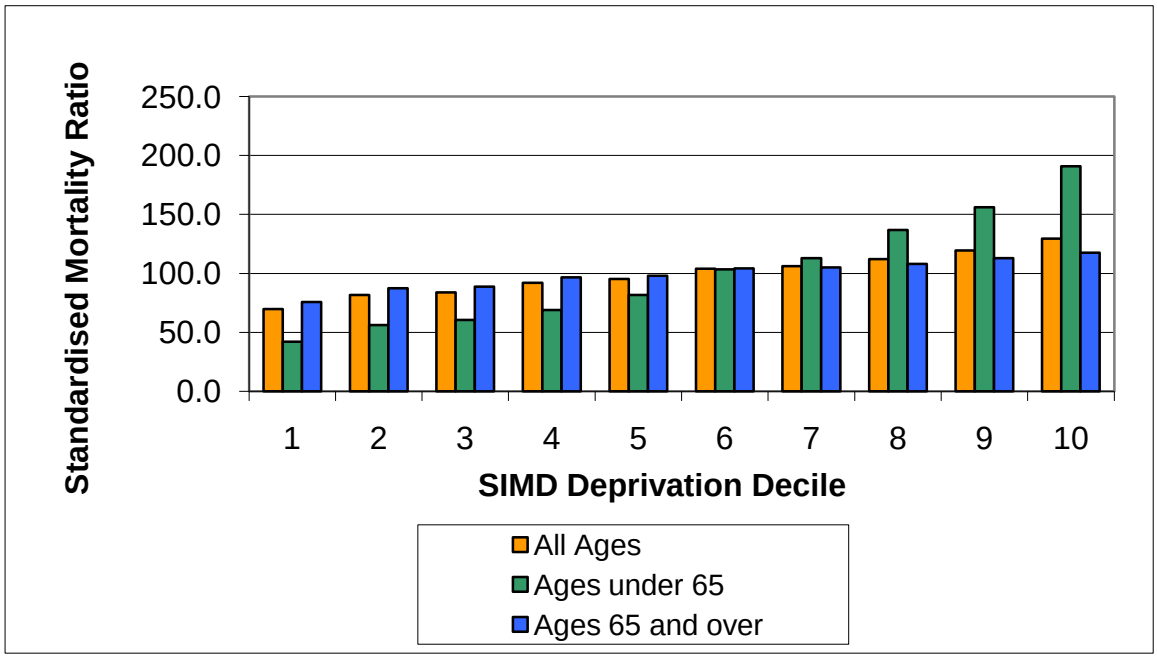
Table 9 Coronary Heart Disease and Deprivation; mortality crude rates and standardised mortality ratios (SMR) by age group and SIMD decile; 2004-2008

		All Ages			Ages under 65			Ages 65 and over		
SIMD Decile		Total Deaths	Crude Rate per 100,000 Population	SMR	Total Deaths	Crude Rate per 100,000 Population	SMR	Total Deaths	Crude Rate per 100,000 Population	SMR
Least Deprived	**1**	3119	620.0	69.8	331	76.6	42.0	2788	3924.8	75.8
	2	3357	673.0	81.5	436	100.7	56.0	2921	4440.3	87.5
	3	3878	787.0	83.9	477	113.9	60.5	3401	4601.7	88.7
	4	4551	923.1	92.0	559	135.4	68.9	3992	4973.2	96.5
	5	4707	943.1	95.3	666	159.4	81.7	4041	4968.8	98.0
	6	5422	1070.6	104.0	825	196.6	103.3	4597	5290.4	104.2
	7	5566	1093.0	106.2	870	207.0	112.8	4696	5276.1	105.1
	8	5937	1155.2	112.2	1051	248.2	136.7	4886	5395.5	108.0
	9	5907	1141.6	119.5	1193	277.0	156.0	4714	5434.3	112.8
Most Deprived	**10**	5876	1112.4	129.5	1425	317.5	190.9	4451	5607.5	117.4

Source: Registrar General for Scotland, 2008

This information can usefully be represented as a bar-chart, as follows:

Figure 5 Coronary Heart Disease Standardised Mortality Ratios by age group and SIMD decile; 2004-2008



Source: Registrar General for Scotland, 2008

This chart shows a clear gradient by deprivation for coronary heart disease mortality. This gradient is steepest for those aged under 65. The standardised mortality ratio for coronary heart disease for those under 65 in the most deprived decile is 190.0 indicating that they suffer almost double the average rate; in the least deprived decile it is 42.0, well below half the average rate/.

We turn now to cerebrovascular disease mortality and examine whether the death rate is linked to deprivation in a similar way.

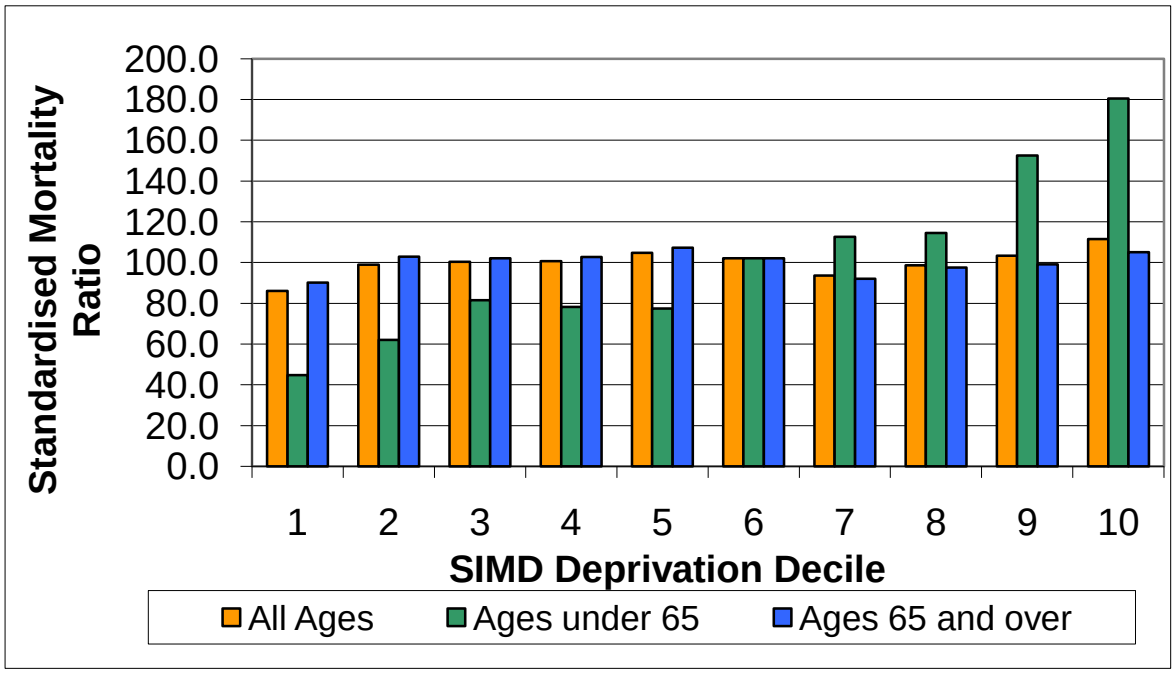
Table 10 Cerebrovascular disease and Deprivation; mortality crude rates and standardised mortality ratios (SMR) by age group and SIMD decile; 2004-2008

		All Ages			Ages under 65			Ages 65 and over		
SIMD Decile		Total Deaths	Crude Rate per 100,000 Population	SMR	Total Deaths	Crude Rate per 100,000 Population	SMR	Total Deaths	Crude Rate per 100,000 Population	SMR
Least Deprived	**1**	2233	443.9	86.1	104	24.1	44.8	2129	2997.1	90.1
	2	2323	465.7	98.9	142	32.8	62.1	2181	3315.4	102.9
	3	2695	546.9	100.3	188	44.9	81.5	2507	3392.1	102.1
	4	2889	586.0	100.7	185	44.8	78.3	2704	3368.6	102.7
	5	2982	597.5	104.8	184	44.0	77.4	2798	3440.4	107.3
	6	3104	612.9	102.1	239	57.0	102.0	2865	3297.1	102.1
	7	2872	564.0	93.6	256	60.9	112.6	2616	2939.2	92.1
	8	3067	596.8	98.7	260	61.4	114.5	2807	3099.7	97.5
	9	2935	567.2	103.3	344	79.9	152.5	2591	2986.9	99.1
Most Deprived	**10**	2901	549.2	111.5	398	88.7	180.5	2503	3153.3	105.1

Source: Registrar General for Scotland, 2008

This information can be represented as a bar chart, as follows:

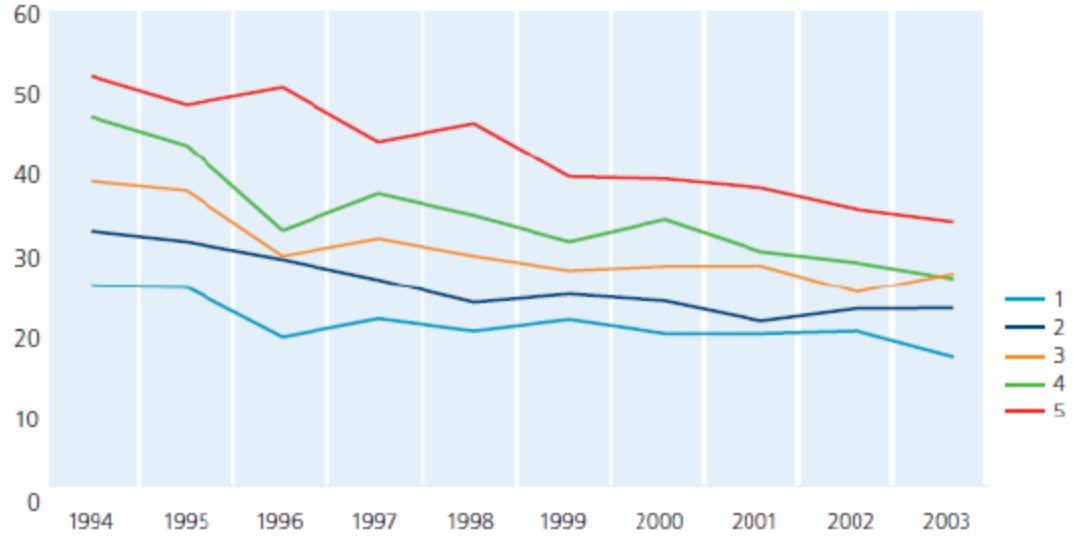
Figure 6 Cerebrovascular Disease Standardised Mortality Ratios by age group and SIMD decile; 2004-2008



Source: Registrar General for Scotland, 2008

The table and graph show that in general there is no strong link between deprivation and cerebrovascular mortality. However, for those under 65, there is a marked increase at the 9th and 10th decile of deprivation showing that these groups suffer greater levels of premature mortality from cerebrovascular disease. The SMR for those in the first decile and aged under 65 is 44.8; for the 9th and 10th decile it is 152.5 and 180.5 respectively.

Figure 7 Cerebrovascular disease for ages under 75 age-standardised (European Standard Population) Mortality rate per 100,000 by deprivation quintile



Source: Coronary Heart Disease and Stroke in Scotland 2004: NHS Scotland

The table above shows that cerebrovascular mortality in the under 75s has declined in Scotland between 1994 and 2004. The gap in under 75 mortality rate by quintile of social deprivation has reduced in absolute terms but it remains the case that those in the most deprived quintile of areas have roughly double the rate of cerebrovascular disease related mortality in the under 75s than those in the least deprived quintile.

4.3.3 Cancer mortality

ENGLAND

As with cardiovascular disease, the data have been collated from two sources by White et al, 2003 (see above).

Table 11 Mortality from cancer by social class 1997-1999, males aged 35-64, directly age-standardised death rates (DSR) per 100,000 person years, with 95% confidence intervals (CI)

		1997–99
Lung cancer (ICD-9 code 162)		
I&II	36 (28–46)	21 (12–36)
IIIN	50 (36–69)	23 (11–46)
IIIM	76 (66–87)	47 (36–61)
IV&V	81 (68–97)	66 (48–90)
Ratio IV&V: I&II	2.25	3.14
Non-Manual	40 (33–49)	22 (14–33)
Manual	77 (69–87)	54 (44–66)
Stomach cancer (ICD-9 code 151)		
I&II	5 (2–10)	6 (2–21)
IIIN	7 (3–16)	6 (2–25)
IIIM	15 (11–21)	11 (7–20)
IV&V	19 (13–28)	7 (3–18)
Ratio IV&V : I&II	3.8	1.17
Non-Manual	5 (3–9)	6 (2–14)
Manual	17 (13–21)	10 (6–16)
Colorectal cancer (ICD-9 codes 153–154)		
I&II	19 (13–28)	20 (12–34)
IIIN	27 (17–43)	24 (12–49)
IIIM	23 (17–29)	17 (11–27)
IV&V	19 (13–28)	15 (8–29)
Ratio IV&V: I&II	1.00	0.75
Non-Manual	21 (16–28)	22 (15–34)
Manual	21 (17–26)	16 (11–24)
Prostate cancer (ICD-9 code 185)		
I&II	7 (4–12)	12 (6–24)
IIIN	6 (2–15)	9 (3–29)
IIIM	7 (4–11)	8 (4–15)
IV&V	7 (4–12)	5 (2–15)
Ratio IV&V: I&II	1.00	0.42
Non-Manual	7 (4–11)	11 (6–20)
Manual	7 (5–10)	7 (4–12)

Source: White et al 2003.

The table above shows no statistically significant relationship between social class and mortality due to stomach, colorectal and prostate cancer. There is a significant relationship between lung cancer and social class. Someone in social classes IV or V is around three times more likely to die of lung cancer than someone in social classes I or II. There is also a statistically significant difference in the lung cancer mortality rate for non-manual workers (22) and manual workers (54).

White et al do the same analysis for women but in relation to a set of the five most important female cancers. This gives the following figures:

Table 12 Mortality from cancer by social class 1997-1999, females aged 35-64, directly age-standardised death rates (DSR) per 100,000 person years, with 95% confidence intervals (CI)

Breast cancer (ICD-9 code	
I&II	57 (40–80)
IIIN	47 (31–71)
IIIM	42 (30–59)
IV&V	37 (23–58)
Ratio IV&V: I&II	0.65
Non-Manual	56 (43–72
Manual	39 (30–52)
Lung cancer (ICD-9 code	
I&II	18 (9–33)
IIIN	4 (1–17)
IIIM	23 (15–37)
IV&V	40 (26–61)
Ratio IV&V: I&II	2.22
Non-Manual	11 (7–19)
Manual	20 (21–40)
Stomach cancer (ICD-9 co	
I&II	0 (0–0)
IIIN	5 (2–16)
IIIM	4 (2–11)
IV&V	5 (2–15)
Ratio IV&V: I&II	–
Non-Manual	3 (1–8)
Manual	4 (2–9)
Colorectal cancer (ICD-9	
I&II	7 (3–18)
IIIN	5 (1–20)
IIIM	9 (4–18)
IV&V	8 (3–20)
Ratio IV&V: I&II	1.14
Non-Manual	6 (3–13)
Manual	9 (5–15)
Cervical cancer (ICD-9 co	
I&II	1 (0–9)
IIIN	4 (1–17)
IIIM	10 (5–21)
IV&V	14 (7–30)
Ratio IV&V: I&II	14.00
Non-Manual	3 (1–8)
Manual	12 (7–21)

Source: White et al 2003.

All of the selected cancers show a gradient by deprivation, with mortality from Lung, Stomach, Colorectal and Cervical cancers being more common in 35 – 64 year old females from social classes IV and V than from social classes I and II. The pattern is reversed for Breast Cancer. There is significant variation between the highest and lowest social class groups in relation to stomach cancer. For lung cancer social class III N (non-manual routine work) has the lowest mortality rate of all the social classes and one that is statistically significantly lower than social class group IV-V.

Cancer mortality thus seems not to be strongly class biased, although lung cancer in men is. This finding is slightly at odds with figure from the Health Profile of England.

Table 13 Indicators of poverty and life expectancy (heart disease and stroke) by region in England

Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	33.6	31.7	27.2	16.6	27.4	6.2	28.5	5.9	9.2
2	Children in poverty	2005	%	22.4	26.0	25.0	23.0	19.5	24.8	16.9	33.9	15.4	16.9
31	Early deaths: cancer	2004-06	r per 100,000	117.1	136.0	131.0	122.3	115.1	119.2	108.3	114.6	109.8	108.1

Key

GREEN = significantly better than national average

AMBER = not significantly different from national average

RED = significantly worse than national average

NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

This shows that all areas with significantly worse than average levels of premature cancer deaths also score significantly worse than average on indicators of deprivation and child poverty. This highlights the link between deprivation and premature cancer mortality.

4.3.3 Cancer mortality

WALES

There are no separate data for Wales

4.3.3 Cancer mortality

SCOTLAND

Table 14 Cancer mortality under 75 years, both sexes, rate per 100,000, age-standardised to the European population.

		2000	2001	2002	2003	2004	2005	2006	2007	2008
Scotland overall	EASR	149.7	151.9	149.6	144.6	142.5	140.9	137.0	136.5	133.6
Most deprived 15% (SIMD)	EASR	204.7	209.0	205.4	205.9	208.0	195.5	200.0	206.4	200.3
Most deprived 15% (SIMD)	N	1678	1684	1645	1625	1633	1516	1542	1571	1521
Scotland overall	N	8219	8321	8292	8119	8104	8050	7894	7971	7924
% deaths in 15% SIMD MD	%	20.4%	20.2%	19.8%	20.0%	20.2%	18.8%	19.5%	19.7%	19.2%

Source: Registrar General for Scotland, 2008

The table above shows that the most deprived areas of Scotland have mortality rates far higher than the Scottish average.

There is some variation by type of cancer; those most directly associated with smoking tend to be strongly correlated with deprivation. Cervical cancer is correlated with deprivation. Breast and prostate cancer are negatively associated with deprivation. The following tables give the figures:

Table 15 Cancer of trachea, bronchus and lung, Scotland, mortality rates

	Mortality			
SIMD 2006 deprivation quintile	Number of death registrations	EASR	*- Lower 95% CI*	*- Upper 95% CI*
1 (Least deprived	2,168	31.8	*30.4*	*33.1*
2	2,987	40.6	*39.1*	*42.1*
3	3,817	51.8	*50.1*	*53.5*
4	5,046	70.6	*68.6*	*72.7*
5 (Most deprived	6,085	96.9	*94.3*	*99.4*
		<0.0001		

EASR: age-standardised incidence rate per 100,000 person-years at risk (European standard population)

Source: Registrar General for Scotland, 2008

The above table shows mortality rates by deprivation quintile for the smoking-related cancers of trachea, bronchus and lung. The link to deprivation is striking and strong.

Table 16 Breast cancer - women only, Scotland mortality rates

Females				
	Mortality			
SIMD 2006 deprivation quintile	Number of death registrations	EASR	*- Lower 95% CI*	*- Upper 95% CI*
1 (Least deprived)	978	26.2	*24.5*	*28.0*
2	1,070	26.7	*25.0*	*28.4*
3	1,139	28.3	*26.5*	*30.0*
4	1,155	28.8	*27.0*	*30.6*
5 (Most deprived)	1,069	29.5	*27.6*	*31.4*
Test for trend (Poisson regression)		0.0587		

Source: Registrar General for Scotland, 2008

By contrast, the table above shows no statistically significant correlation between deprivation and breast cancer mortality rate. Breast cancer incidence (not shown here) is negatively correlated with deprivation. The differences in incidence and mortality figures highlight that differences in outcomes for breast cancer sufferers do exist with those from more deprived areas having worse outcomes.

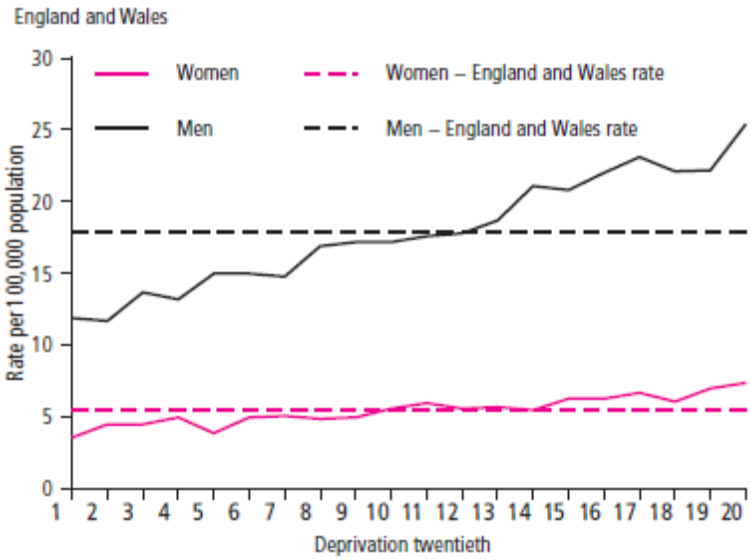
Data are also available on colorectal and prostate cancer, neither of which shows a correlation between death rate and deprivation.

4.3.4 Suicide rates/risk

ENGLAND

The data on suicide are collected by region and nation. For England & Wales these have been set alongside the 2001 Census Standard Table ward of the deceased's usual residence which was then assigned a deprivation score REF Brock et al "Suicide trends and geographical variations in the United Kingdom, 1991-2004".

Table 17 Age-standardised suicide rates by deprivation twentieth and sex, people aged 15 and over, 1993-2003



Source (Brock et al. 2006)

The results show an association between suicide and deprivation, with suicide rates of men and women living in the most deprived areas double those in the least deprived. The figures are given in the table below.

Table 18 Age-standardised suicide rates by deprivation twentieth and sex, people aged 15 and over, England & Wales, 1999-2003

Deprivation twentieth[1]	**Men**	**Women**
	Rate per 100,000 population*	Rate per 100,000 population*
1	11.9	3.6
2	11.7	4.5
3	13.7	4.5
4	13.2	5.0
5	15.0	3.9
6	15.0	5.0
7	14.8	5.1
8	16.9	4.9
9	17.2	5.0
10	17.2	5.6
11	17.6	6.0
12	17.8	5.6
13	18.7	5.7
14	21.1	5.5
15	20.8	6.3
16	22.0	6.3
17	23.1	6.7
18	22.1	6.1
19	22.2	7.0
20	25.4	7.4
England & Wales rate	17.9	5.5

Source (Brock et al. 2006)

The table and graph show that suicide rates in the most deprived areas were double those in the least deprived for men and women. These differences are statistically significant.

4.3.4 Suicide rates/risk

WALES

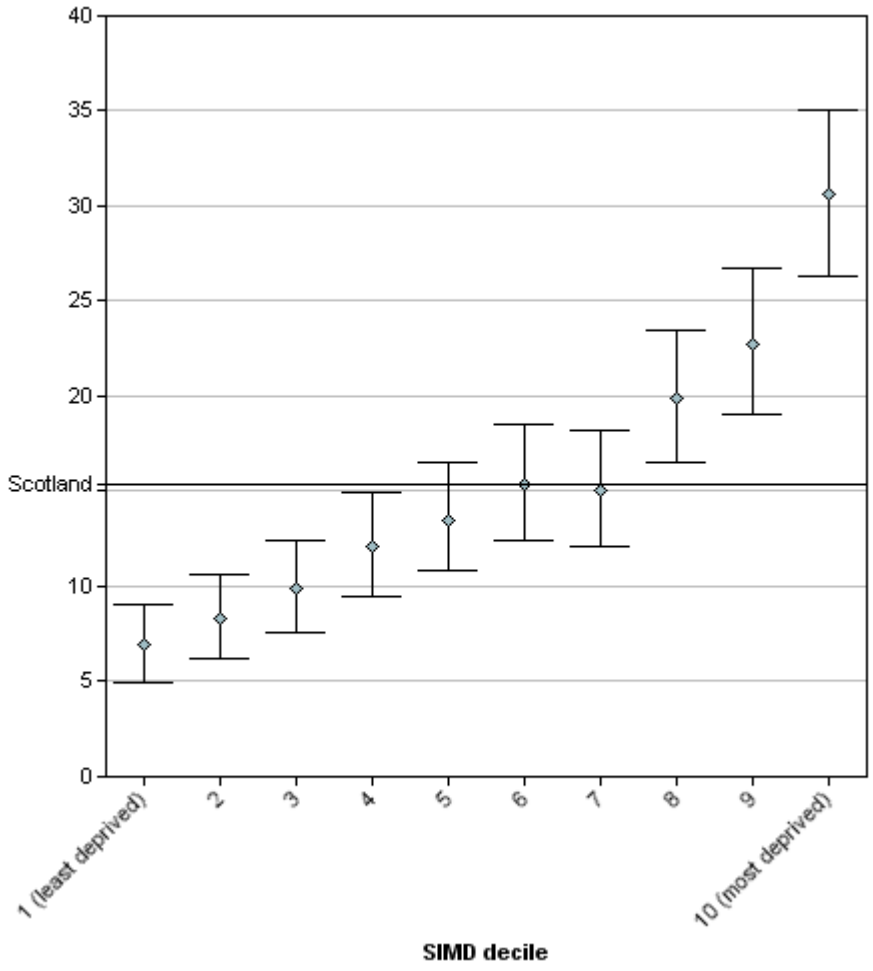
There are no separate data for Wales.

4.3.4 Suicide rates/risk

SCOTLAND

These data are available on the basis of the most deprived areas.

Figure 8 European age-standardised rates per 100,000 population: deaths caused by intentional self harm and events of undetermined intent, by deprivation decile (SIMD), Scotland, 2004-08



Source: General Register Office for Scotland: Data extracted Jan 2010 by Scottish PHO

The graph above shows there is a direct and statistically significant link between an area's deprivation score and the mortality rate due to suicide and self-harm.

Table 19 Deaths caused by intentional self harm and events of undetermined intent by Scottish Index of Multiple Deprivation (SIMD)

	Numbers		Crude rates		European age-standardised rates (EASRs) (95% confidence intervals)	
	1999-03	2004-08	1999-03	2004-08	1999-03	2004-08
Males						
1 (most affluent)	146	135	11.7	10.7	11.5 (9.7-13.5)	10.5 (8.8-12.4)
2	159	180	12.8	14.1	12.4 (10.6-14.5)	13.4 (11.5-15.6)
3	186	207	15.2	16.2	14.9 (12.8-17.3)	15.4 (13.3-17.6)
4	238	239	19.5	18.8	19.4 (17-22.1)	18.2 (15.9-20.7)
5	281	253	22.7	19.9	22.3 (19.7-25)	19.1 (16.8-21.7)
6	296	312	23.9	24.8	23.1 (20.6-25.9)	23.8 (21.3-26.7)
7	355	298	28.7	24.1	28.1 (25.3-31.2)	23.3 (20.7-26.1)
8	398	373	32.2	30.4	31.8 (28.8-35.1)	29.7 (26.8-32.9)
9	454	421	36.7	34.6	37.1 (33.7-40.7)	34.3 (31.1-37.8)
10 (most deprived)	625	550	49.7	45.4	51.2 (47.2-55.4)	46 (42.2-50)
Unknown	*98*	*32*	-	-	-	-
Scotland	***3,236***	***3,000***	***26.6***	***24.3***	***25.8 (24.9-26.7)***	***23.4 (22.6-24.2)***

Source: Registrar General for Scotland, 2008

The table above gives the figures from which the graph is derived. Both show that the difference between the most deprived and least deprived area of Scotland is statistically significant, as is the difference between both the most and least deprived, and Scotland overall.

4.3.5 Accident mortality rate

ENGLAND

We did not find any figures correlating the accident mortality rate with social class or deprivation area. The data are available but the statistical work has not been done. The following data were available, however.

The Health Profile of England 2008 includes figures on road injuries and deaths. The relationship between deprivation and these figures is not straightforward. The East of England has a high rate of road morbidity and mortality but is not a deprived area, the North East of England has the opposite phenomenon. At present we could not find general figures on accident mortality by class for England, Scotland and Wales.

Table 20 Road injury and death rate by local health profile data on deprivation, England

Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	33.6	31.7	27.2	16.6	27.4	6.2	28.5	5.9	9.2
2	Children in poverty	2005	%	22.4	26.0	25.0	23.0	19.5	24.8	16.9	33.9	15.4	16.9
32	Road injuries and deaths	2004-06	cr per 100,000	56.3	44.6	57.5	65.1	63.7	50.5	64.4	52.6	55.3	49.8

Key

GREEN = significantly better than national average

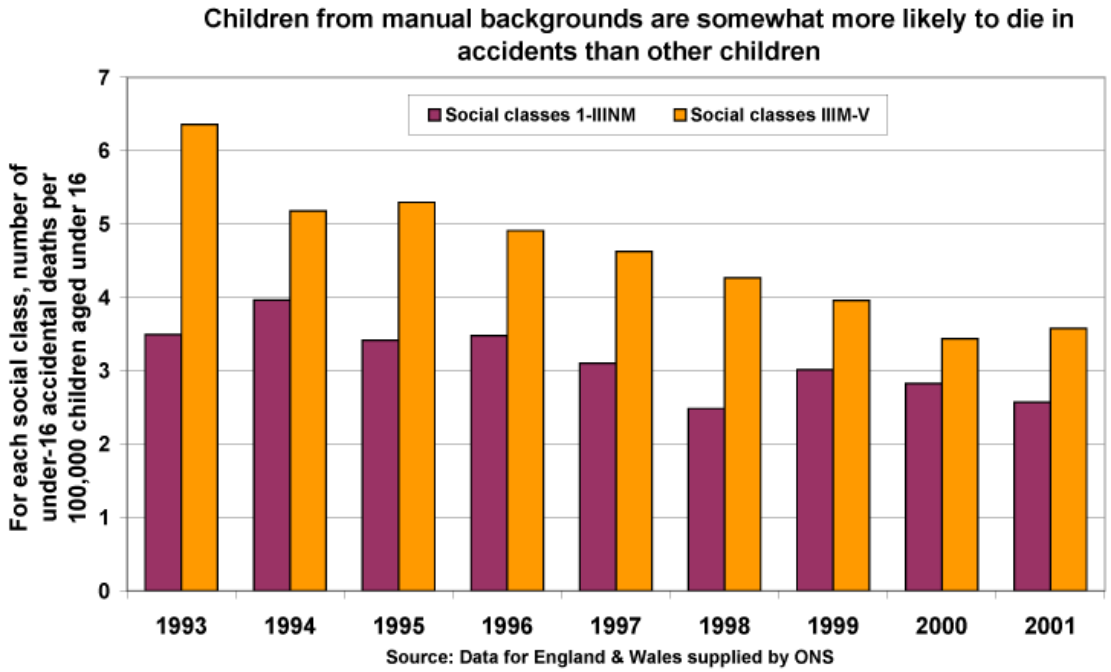
AMBER = not significantly different from national average

RED = significantly worse than national average

NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

The Poverty website (poverty.org.uk) has the following data which was given to them by request from the Office for National Statistics.



Source: poverty.org.uk

The graph above shows a clear and reducing gap in accidents death rates between children from manual and non-manual work backgrounds. No confidence intervals are available, but the trend is consistent over a long period of time.

WALES

These data are not collected in the General Register Office Census Longitudinal Study (for England & Wales).

4.3.5 Accident mortality rate

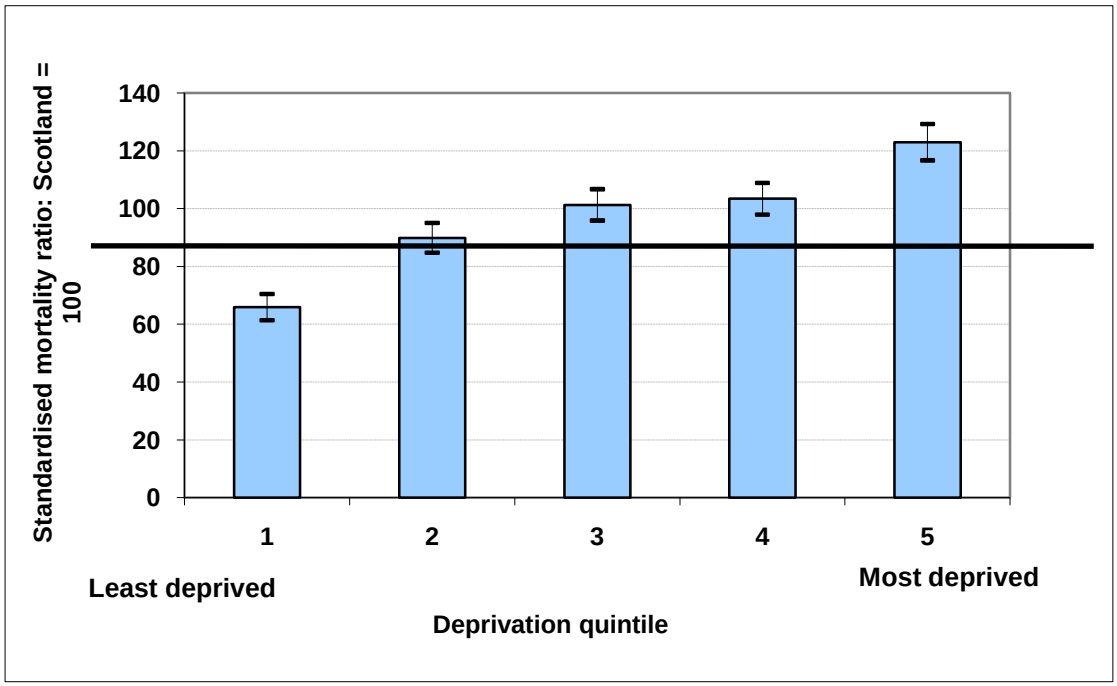
SCOTLAND

Table 21 Deaths as a result of an unintentional injury, adults aged 15 and over by deprivation quintile, number and standardised mortality ratio, year ending 31 December, 2004-08

	Deprivation quintile					
	1	2	3	4	5	**Total**
Number of deaths	813	1,175	1,335	1,361	1,473	**6,157**
Standardised mortality ratio	65.9	89.9	101.3	103.4	123.0	**100.0**
Lower 95% confidence interval	*61.4*	*84.8*	*95.9*	*97.9*	*116.7*	
Upper 95% confidence interval	*70.5*	*95.0*	*106.8*	*108.9*	*129.3*	

Source: Registrar General for Scotland, 2008

Figure 9 Mortality from unintentional injury, adults aged 15 years and over by deprivation quintile, year ending 31 December, 2004-2008



Source: General Register Office for Scotland: Scottish Index of Multiple Deprivation

The graph and table above show a statistically significant inequality in mortality from unintentional injury. This includes road traffic accidents and is the best approximation to an accident mortality rate. Those in the most deprived areas of Scotland have an accident mortality rate approximately double that of those in the least deprived.

4.3.6 Deaths from non-natural causes for people resident in health or social care establishments

These data are not collected by Socio-economic status in the General Register Office for Scotland or the General Register Office Census Longitudinal Study (for England & Wales). We found nothing elsewhere.

4.3 Health: Main indicators

Outcomes

4.3.7 [2.1] Self-report poor current [physical] health

ENGLAND

Source: Census Longitudinal Survey

From the Census 2001, those who had never worked or were long-term unemployed had the highest rates of self-reported not good health (18.5%). Amongst those employed, rates of not good health for people in routine occupations were more than double those for people in higher managerial and professional occupations (8.6% and 3.4%).

4.3.7a Healthy life expectancy

The Office for National Statistics is currently collecting experimental statistics on healthy life expectancy by area. These figures have been collected by small electoral wards but the data have not been aggregated to give healthy life expectancy by area of deprivation. However, dissagregation has been performed on earlier statistics by Bajekal REF.

Table 22 Healthy life expectancy (HLE) at birth by deprivation decile and sex, 1994-9, England

	HLE (1994–1999)	
At birth Deprivation decile	Years	95% confidence interval
Males		
1 Least deprived	66.2	(65.4 – 67.0)
2	65.0	(64.3 – 65.8)
3	63.9	(63.1 – 64.7)
4	62.2	(61.4 – 63.1)
5	59.7	(58.9 – 60.6)
6	58.4	(57.5 – 59.3)
7	56.3	(55.4 – 57.2)
8	55.3	(54.4 – 56.2)
9	52.4	(51.5 – 53.4)
10 Most deprived	49.4	(48.4 – 50.3)
Difference (Least – Most)	16.9	(15.7 – 18.1)
England	59.1	(58.8 – 59.3)
Females		
1 Least deprived	68.5	(67.7 – 69.2)
2	66.9	(66.1 – 67.7)
3	65.7	(64.9 – 66.5)
4	64.7	(63.9 – 65.5)
5	62.3	(61.4 – 63.2)
6	59.9	(59.0 – 60.8)
7	58.7	(57.8 – 59.6)
8	58.0	(57.1 – 58.9)
9	56.0	(55.1 – 57.0)
10 Most deprived	51.7	(50.7 – 52.6)
Difference (Least – Most)	16.8	(15.5 – 18.0)
England	61.4	(61.1 – 61.7)

Source: (Bajekal 2005)

The table shows that for both men and women in England, there is a clear social gradient in healthy life expectancy in 1994-9. The difference in healthy

life expectancy between the most and least deprived deciles for both men and women is almost 17 years.

4.3.7 [2.1] Self-report poor current [physical] health

WALES

Table 23 SF-36 Physical component summary score, Wales

2008 Welsh Index of Multiple Deprivation quintile	SF-36 Physical component summary score (c)
	Mean
Age-standardised	
1 (least deprived)	50.8
2	49.6
3	48.9
4	48.3
5 (most deprived)	46.6
Observed	
1 (least deprived)	50.5
2	49.4
3	48.8
4	48.6
5 (most deprived)	47.2
All aged 16+	48.9

Source: Welsh Health Survey 2008

4.3.7 [2.1] Self-report poor current [physical] health

SCOTLAND

Table 24 Estimated odds ratio for bad/very bad general health by income and deprivation

Aged 16 and over *2008*

Independent variables	Men			Women		
	Base (weighted) **3088**	Odds Ratio	95% Confidence interval	Base (weighted) **3377**	Odds Ratio	95% Confidence interval
Equivalised annual household income quintile		(p=<0.001)			(p=0.001)	
1st (highest)	656	1		614	1	
2nd	564	2.04	0.71, 5.83	578	0.85	0.38, 1.89
3rd	593	4.24	1.51, 11.89	596	1.18	0.57, 2.46
4th	426	4.25	1.54, 11.75	546	2.28	1.14, 4.55
5th (lowest)	438	8.03	2.90, 22.21	569	2.50	1.20, 5.19
Not categorised	411	3.42	1.20, 9.76	475	1.53	0.71, 3.28
Scottish Index of Multiple Deprivation quintile		(p=0.002)			(p=0.001)	
5th (least deprived)	551	1		630	1	
4th	757	1.21	0.64, 2.28	746	1.76	1.02, 3.05
3rd	564	1.29	0.66, 2.52	630	1.20	0.66, 2.19
2nd	630	1.34	0.69, 2.62	695	1.98	1.11, 3.56
1st (most deprived)	587	2.51	1.34, 4.68	677	2.79	1.59, 4.89

Source: Scottish Health Survey, 2008

Household income was significantly associated with poor self-assessed health for both men and women. When compared with the highest household income quintile, the odds of reporting poor health were significantly higher among men in the 3rd, 4th and 5th income quintiles, and among women in the 4th and 5th. The odds of those in the lowest income quintile having poor self-assessed health were 8.03 times higher for men and 2.50 times higher for women (Scottish Health Survey).

4.3.7a Healthy Life Expectancy

Table 25 Scottish life expectancy and healthy life expectancy by sex and deprivation

			LE	HLE
MALE	**15% most deprived datazones**	1999-2000	66.7	55.4
		2001-2002	66.8	56.1
		2005-2006	68.3	57.3
		2007-2008	68.1	57.5
	Scotland	**1999-2000**	**73.0**	**65.1**
		2001-2002	**73.4**	**66.0**
		2005-2006	**74.8**	**67.4**
		2007-2008	**75.1**	**68.0**
FEMALE			**LE**	**HLE**
	15% most deprived datazones	1999-2000	74.6	60.8
		2001-2002	75.1	61.4
		2005-2006	75.6	60.4
		2007-2008	75.8	61.9
	Scotland	**1999-2000**	**78.4**	**68.2**
		2001-2002	**78.9**	**69.3**
		2005-2006	**79.7**	**69.7**
		2007-2008	**80.0**	**70.5**

Source: High level summary of statistics, Scottish Government, 2010

The table above shows that both life expectancy and healthy life expectancy are worst within the 15% most deprived areas. This pattern exists across both sexes. In 2007-8, HLE for men in Scotland was 57.5 years in the most deprived areas and 68.0 years in Scotland overall. The equivalent figures for women are 61.9 years and 70.5 years.

4.3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

In this report the acronym LLTI is used to stand for longstanding health problem or disability, or longstanding illness.

ENGLAND

The data on LLTI are collected in the Office for National Statistics General Lifestyle Survey. Over 40% of adults aged 45 to 64 report LLTI, the proportions being similar for men and women. However, the proportions are related to class, with those in routine and manual occupational groups more likely to have an LLTI. These figures are for England, Scotland and Wales.

Table 26 Prevalence of reported longstanding illness by sex, age and socio-economic classification of household reference person

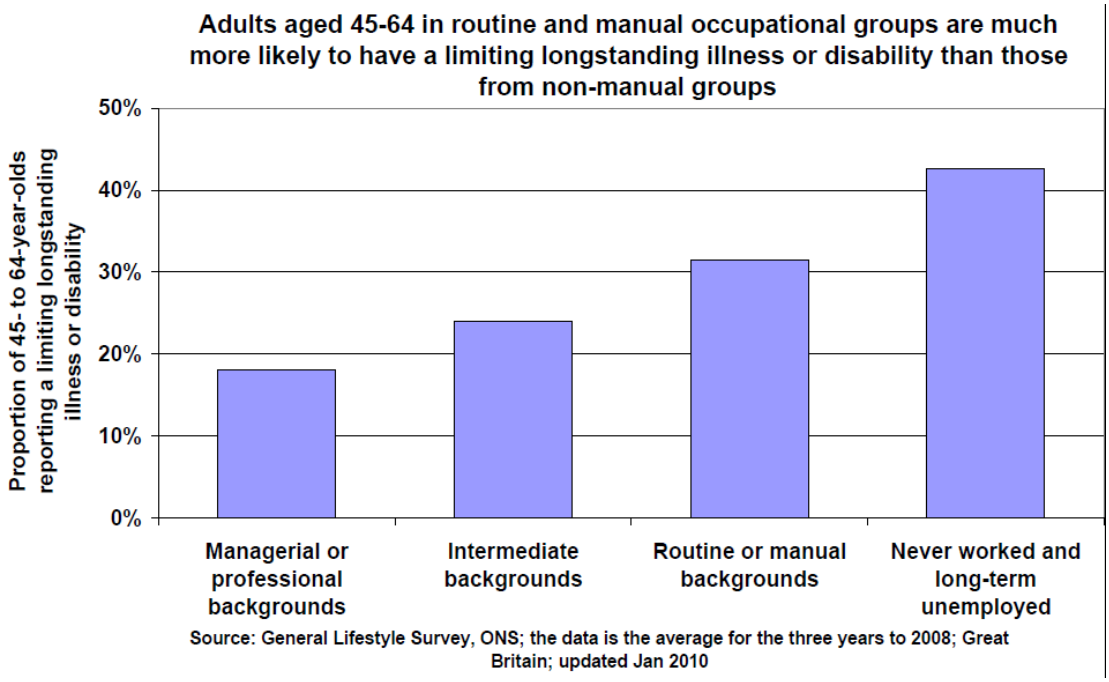
All persons — *Great Britain: 2007*[1]

Socio-economic classification of household reference person [2]	Males										Females									
	Age										Age									
	0-15		16-44		45-64		65 and over		Total		0-15		16-44		45-64		65 and over		Total	
	Percentage who reported longstanding illness																			
Large employers and higher managerial	12		17		32		62		25		8		18		27		57		23	
Higher professional	9	14	16	17	38	38	61	59	26	27	11	12	23	20	33	35	59	59	27	27
Lower managerial and professional	18		17		41		58		29		14		19		39		60		29	
Intermediate	15	12	14	17	42	41	66	62	28	30	17	13	25	20	37	39	57	55	35	32
Small employers and own account	10		19		40		60		31		11		15		41		54		28	
Lower supervisory and technical	17		24		48		64		37		16		22		45		58		33	
Semi-routine	14	14	25	24	48	50	64	65	34	37	14	16	24	24	49	49	62	63	37	38
Routine	14		21		55		68		38		17		26		53		69		41	
All persons	15		20		43		62		31		13		22		41		60		32	

Source: Office for National Statistics General Household Survey

The following graph makes the same point using the data aggregated slightly differently.

Figure 10 Limited longstanding illness LLTI by occupational group, adults aged 45-64, Great Britain



Source: The Poverty Site

In Great Britain, therefore, LLTI is associated with social class; those in routine or manual backgrounds and those who are long-term unemployed are more likely to have an LLTI.

4.3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

WALES

The Welsh Health Survey has the following figures.

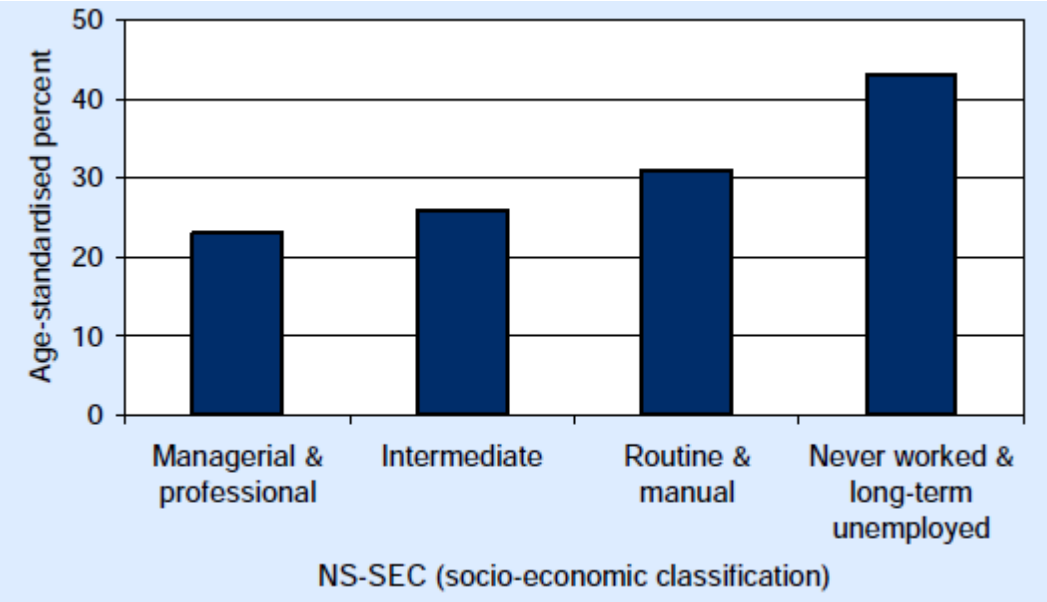
Table 27 LLTI by socio-economic classification of household reference person, Wales, 2008

Socio-economic classification of household reference person	Limiting long-term illness (b)
	%
Age-standardised	
Managerial and professional	23
Intermediate	26
Routine and manual	31
Never worked and long-term unemployed	43
Observed	
Managerial and professional	23
Intermediate	27
Routine and manual	32
Never worked and long-term unemployed	41
All aged 16+	27

Source: Welsh Health Survey, 2008

The same figures can be presented graphically, as follows

Figure 11 Percentage who reported having a LLTI by household NS-SEC



Source: Welsh Health Survey

The data and graph show that the pattern for Great Britain as a whole is replicated in Wales.

4.3.8 [1.1] Longstanding health problem or disability (E W) and longstanding illness (S)

SCOTLAND

These data are available through the Scottish Household Survey, 2005-6.

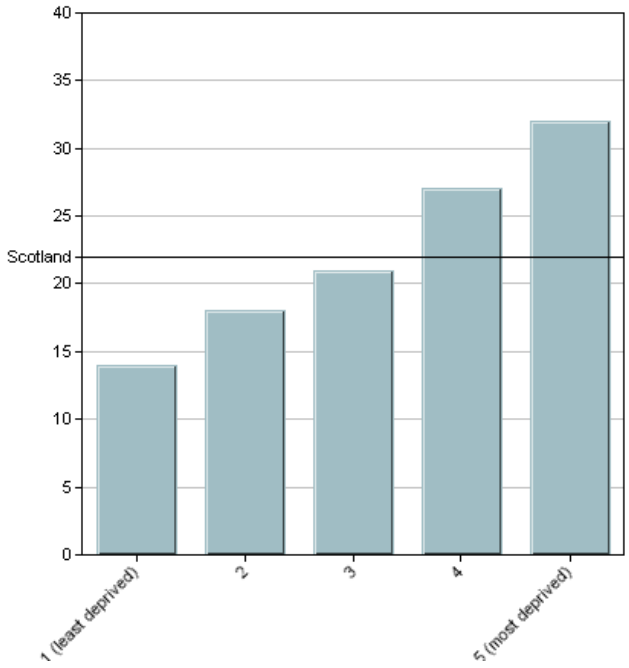
Table 28 Percentage of adults aged 16 and over with a long-standing illness, disability or health problem by Scottish Index of Multiple Deprivation quintile, 2007/08

SIMD quintile	Percentage
1 (least deprived)	14
2	18
3	21
4	27
5 (most deprived)	32

Source: Scottish Household Survey 2005-06

The same data represented graphically:

Figure 12 Percentage of adults aged 16 and over with a long-standing illness, disability or health problem by Scottish Index of Multiple Deprivation quintile, 2007/08



Source: Scottish Household Survey 2005-06

The pattern in Scotland is the same as the rest of Great Britain, with the most deprived having the highest prevalence of LLTI.

4.3.9 [1.2] Poor mental health or wellbeing

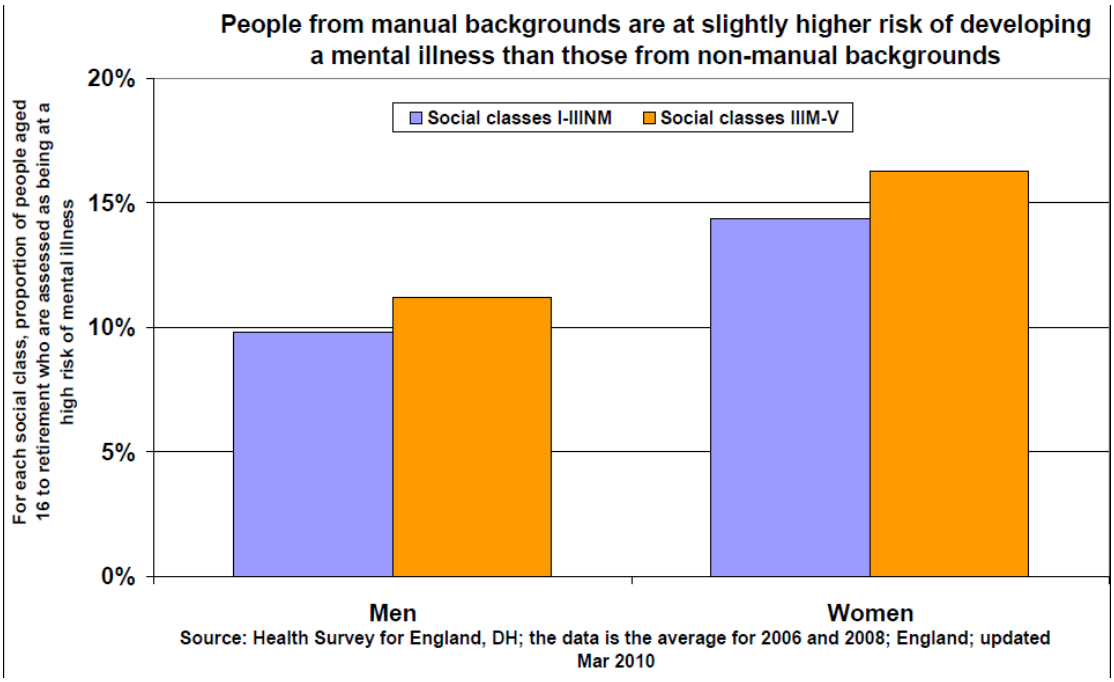
ENGLAND

Table 29 Risk of developing a mental illness by manual, non-manual status

Gender	Social classes I-IIINM	Social classes IIIM-V
Men	10%	11%
Women	14%	16%

Source: Health Survey for England via Poverty Site

Figure 13 Risk of developing a mental illness by manual, non-manual status



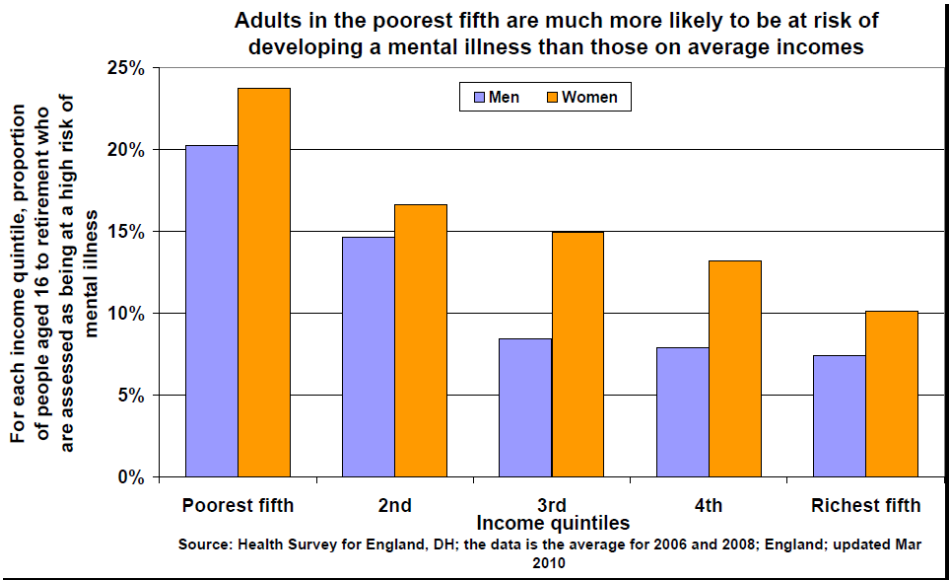
Source: Health survey for England, via Poverty site

Table 30 Risk of developing a mental illness by level of income

Income quintile	Men	Women
Poorest fifth	20%	24%
2nd	15%	17%
3rd	8%	15%
4th	8%	13%
richest fifth	7%	10%

Source: Health survey for England, via Poverty site

Figure 14 Risk of developing a mental illness by level of income



Source: Health survey for England, via Poverty site

Table 31 Incapacity benefit for mental illness by deprivation of region in England

Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	33.6	31.7	27.2	16.6	27.4	6.2	28.5	5.9	9.2
2	Children in poverty	2005	%	22.4	26.0	25.0	23.0	19.5	24.8	16.9	33.9	15.4	16.9
19	Incapacity benefits for mental illness	2006	cr per 1000	27.5	40.8	40.5	28.3	24.1	28.5	20.0	26.9	19.4	26.3

Key

GREEN = significantly better than national average

AMBER = not significantly different from national average

RED = significantly worse than national average

NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

The figures and graphs above show a general picture in which poverty and deprivation are associated with mental illness. Adults in the poorest fifth are at more than twice as much risk of developing a mental illness than those on average incomes. People in deprived areas are significantly more likely to claim incapacity benefits for mental illness than those in affluent areas. The route of causation here is unclear; living on a low income may increase the likelihood of developing mental illness, but mental illness may also reduce the likelihood of being able to progress to and work in high-earning posts. However, it remains a serious inequality whether it is the result of those with mental illness becoming poor or those in poverty becoming mentally ill.

4.3.9 [1.2] Poor mental health or wellbeing

WALES

Table 32 Mental illness by socio-economic classification of household reference person, Wales

Socio-economic classification of household reference person	Any mental illness (b)	SF-36 Mental component summary score (c)
	%	*Mean*
Age-standardised		
Managerial and professional	7	51.1
Intermediate	8	50.6
Routine and manual	11	48.9
Never worked and long-term unemployed	27	42.6
Observed		
Managerial and professional	8	51.1
Intermediate	8	50.6
Routine and manual	11	48.9
Never worked and long-term unemployed	26	42.4
All aged 16+	9	49.8

(b) = Adults who reported being treated for depression, anxiety or any other mental illness

(c) = SF36 is a 36 point questionnaire which includes questions about mental health and wellbeing; a higher score is better.

Source Welsh Health Survey

The data in Wales indicate a social gradient; those most at risk of mental illness are those who are unemployed or who have never worked; but those working in routine and manual jobs are about 33% more likely to have a mental illness than managerial and professional workers. There is a similar gradient in relation to mental wellbeing.

4.3.9 [1.2] Poor mental health or wellbeing

SCOTLAND

The data in Scotland show a similar picture to England & Wales. In the Scottish Health Survey, the measurement device used is the Warwick-Edinburgh Mental Wellbeing Scale. This is a score of mental wellbeing rather than mental illness. The minimum score is 14 and the highest is 70. The Scottish mean score is around 50. It is a relatively new tool but has been validated against other tools and assessed as robust in focus groups. The data for Scotland were collected and published in the 2008 Scottish Health Survey. They are set out in the two tables below.

Table 33 WEMWBS mean scores by NS-SEC of household reference person and sex

Aged 16 and over *2008*

WEMWBS scores	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
Men					
Observed					
Mean	51.6	50.1	50.0	50.7	48.4
Standard error of the mean	0.31	0.55	0.68	0.49	0.41
Standard deviation	7.85	7.74	8.48	8.14	9.40
Standardised					
Mean	51.5	50.4	50.1	50.9	48.4
Standard error of the mean	0.30	0.55	0.69	0.50	0.42
Standard deviation	7.88	7.71	8.29	8.01	9.37
Women					
Observed					
Mean	51.1	49.8	50.2	49.5	48.0
Standard error of the mean	0.27	0.48	0.62	0.48	0.31
Standard deviation	7.72	8.27	8.46	7.94	9.24
Standardised					
Mean	51.0	49.7	50.5	49.4	47.9
Standard error of the mean	0.28	0.50	0.60	0.53	0.32
Standard deviation	7.78	8.04	8.46	8.07	9.31

Source: Scottish Health Survey 2008

Table 34 WEMWBS means score by equivalised household quintile and sex

Aged 16 and over *2008*

WEMWBS scores	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
Men					
Observed					
Mean	51.8	51.5	50.9	49.4	46.4
Standard error of the mean	0.34	0.40	0.45	0.50	0.61
Standard deviation	6.80	7.26	8.05	9.65	10.11
Standardised					
Mean	51.6	51.4	50.7	49.3	45.9
Standard error of the mean	0.42	0.40	0.44	0.60	0.64
Standard deviation	7.20	7.28	8.07	9.73	10.34
Women					
Observed					
Mean	51.8	51.0	49.9	48.8	46.1
Standard error of the mean	0.36	0.32	0.39	0.44	0.48
Standard deviation	7.15	7.32	7.95	8.69	10.13
Standardised					
Mean	52.1	50.8	49.9	48.4	45.7
Standard error of the mean	0.43	0.36	0.40	0.49	0.52
Standard deviation	7.19	7.35	8.01	8.76	10.44

Scottish Health Survey 2008

The table shows a social gradient in WEMWBS scores, but the figures are not statistically significant.. It is difficult to get the importance of this inequality until the tool has been in use longer.

Table 35 Anxiety and depression (1), Patients in Scotland consulting a GP or Practice Nurse at least once in the year: rates per 1,000 population (2), (3), and 95% confidence intervals for financial year 2007/08; by gender and deprivation quintile

		Anxiety			Depression		
			95% confidence intervals			95% confidence intervals	
Sex	Quintile	Rates per 1000	Lower	Upper	Rates per 1000	Lower	Upper
Males	**1- most deprived**	42.6	36.0	49.1	24.8	20.2	29.3
	2	30.2	25.7	34.6	20.6	16.7	24.5
	3	28.2	24.1	32.2	19.1	16.0	22.1
	4	21.6	18.2	25.0	16.9	14.5	19.4
	5 - least deprived	18.2	13.5	23.0	13.1	10.8	15.4
	All categories	29.9	25.4	34.5	20.5	17.6	23.5
Females	**1 - most deprived**	86.8	73.7	99.9	49.9	41.7	58.1
	2	68.2	58.3	78.0	40.2	33.4	47.0
	3	62.0	54.5	69.5	43.7	37.7	49.8
	4	51.7	43.4	60.0	38.2	33.3	43.1
	5 - least deprived	40.5	33.3	47.7	29.1	23.2	35.0
	All categories	63.2	53.7	72.7	41.3	34.6	47.9
Persons	ALL	46.6	39.8	53.5	31.0	26.4	35.6

Source: Information Services Division Practice Team Information

The table above shows the rate of consultations for anxiety and depression on the basis of deprivation quintile. This shows large and statistically significant differences between the most and least deprived in relation to both anxiety and depression for both sexes. The point about causation made above applies here also, but whichever is the case it is an important inequality.

Process

4.3.10 [3.1] Low perception of treatment with dignity

ENGLAND

Table 36 Treatment with respect when using health services by social class, ENGLAND

In general, would you say that you are treated with respect when using health services by social class			
	All the time or most of the time	Some of the time or less	N
Higher/lower managerial and professions	91.38	8.62	4861
Intermediate occupations/small employers	90.44	9.56	2687
Lower supervisory & technical/Semi-routine	90.97	9.03	3620
Routine occupations	93.07	6.93	1615
Never worked/ long-term unemployed	87.71	12.29	667
(Chi-Square, 19.18; df, 4; p= <.05)			

Source: Citizenship Survey

The Table above shows that there is no clear social gradient for feeling that you are treated with respect when using health services. However the data do indicate that those who have never worked, or are long term unemployed perceive differences in their treatment from those who are employed.

WALES

The Living in Wales Survey amalgamated three measures into an overall "Satisfaction with Service User Interaction" score: these three are "Treated with dignity and respect"; "Staff were helpful" and "Involved in decisions about treatment. The report states that dissatisfaction is not associated with socio-economic status. The survey no longer exists; it is to be replaced by the National Survey for Wales.

SCOTLAND

Data not yet available on Better Together Survey

4.3.11 [5.1] A&E attendance/accidents

ENGLAND

Data not available disaggregated by class.

4.3.11 [5.1] A&E attendance/accidents

WALES

Table 37 Adults who reported attending hospital in the past three months, by NS-SEC classification of the household reference person

Socio-economic classification of household reference person	In the past three months: Attended hospital because of accident (b)
Age-standardised	
Managerial and professional	5
Intermediate	5
Routine and manual	5
Never worked and long-term unemployed	6
Observed	
Managerial and professional	5
Intermediate	4
Routine and manual	5
Never worked and long-term unemployed	7
All aged 16+	5

(b) Accident, injury or poisoning needing hospital treatment or a visit to casualty.

Source: Welsh Health Survey

In the table above, the number surveyed is 13,313. Only small numbers had attended hospital because of an accident in the previous three months. There is no pattern emerging on the basis of class.

4.3.11 [5.1] A&E attendance/accidents

SCOTLAND

Data not available disaggregated by class.

4.3.12 [3.2] Lack of support for individual nutritional needs during hospital stays

No data are available disaggregated by class

Autonomy

4.3.13 [4.1] Healthy lifestyle

ENGLAND

SMOKING

Table 38 Cigarette smoking status (age-standardised) by equivalised household income and sex, England

Aged 16 and over					*2007*
Cigarette smoking status	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
Current cigarette smoker	15	22	23	31	40
Used to smoke cigarettes regularly	26	33	28	26	21
Never regularly smoked cigarettes	58	46	49	43	39
Women					
Current cigarette smoker	13	12	22	30	32
Used to smoke cigarettes regularly	23	22	23	21	19
Never regularly smoked cigarettes	65	66	55	49	49
Bases (unweighted)					
Men	*622*	*515*	*459*	*459*	*342*
Women	*623*	*562*	*542*	*655*	*527*
Bases (weighted)					
Men	*684*	*587*	*500*	*459*	*387*
Women	*587*	*543*	*498*	*565*	*493*

Source: Health Survey for England, 2007

The table above shows a clear social gradient in smoking by household income quintile. Men and women in the highest quintile have current smoking status at 15% and 13%; in the lowest, the respective figures are 40% and 32%.

Table 39 Smoking and smoking in pregnancy by regional indicators of deprivation in England

Table 1a.1

HEALTH PROFILE OF ENGLAND

Summary of Indicators - Regions (using Local Health Profile data)

	INDICATOR	Period	Unit[1]	England	North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East of England	London	South East	South West
	Our communities												
1	Deprivation	2005	%	19.9	33.6	31.7	27.2	16.6	27.4	6.2	28.5	5.9	9.2
2	Children in poverty	2005	%	22.4	26.0	25.0	23.0	19.5	24.8	16.9	33.9	15.4	16.9
13	Adults who smoke	2003-05	%	24.1	29.1	26.0	25.5	24.9	24.0	23.5	23.3	21.8	21.5
7	Smoking in pregnancy	2006-07	%	16.1	23.6	20.8	19.6	18.3	16.3	14.4	8.9	15.2	16.8

Key

GREEN = significantly better than national average

AMBER = not significantly different from national average

RED = significantly worse than national average

NO SHADE = significance not calculated, or data unavailable

Source: Health Profile of England 2008

The table above shows some degree of association between poverty and deprivation and adults who smoke. In the most deprived area of England, the North East, smoking prevalence is significantly worse than the national average. But in the other deprived areas, there is no significant difference. The association is stronger for smoking in pregnancy. This is significantly worse than the national average in three out of five of the most deprived areas; it is also worse in the South West, which has lower than average deprivation.

ENGLAND

ALCOHOL

In England, Wales and Scotland the class-related pattern on alcohol is comple4. There are class differences but not always of a straightforward one-class-drinks-more variety. The following set of tables is from the Health Survey for England.

Table 40 Maximum alcohol consumption on any day in the last week (age-standardised), by equivalised household income, men, England

Aged 16 and over, drank alcohol in last week *2007*

Maximum daily consumption	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
2 units or less	18	23	25	28	27
More than 2, up to and including 3 units	8	5	8	8	7
More than 3, up to and including 4 units	9	11	9	13	9
More than 4, up to and including 5 units	4	5	5	1	3
More than 5, up to and including 6 units	9	10	7	10	7
More than 6, up to and including 8 units	11	7	11	3	10
More than 8 units	42	39	35	36	37
More than 4 units	*65*	*61*	*58*	*51*	*57*
More than 8 units	*42*	*39*	*35*	*36*	*37*
Mean number of units	8.8	9.0	9.0	9.7	9.3
Standard error of mean	0.41	0.52	0.84	1.52	0.87

Source: Health Survey for England, 2008

The table above shows that there is a social gradient in men drinking more than 4 units and more than 8 units on the heaviest drinking day in the past week. The gradient is in relation to household income quintile; the highest income quintile has the highest proportion of heavy drinkers.

Table 41 Maximum alcohol consumption on any day in the last week (age-standardised), by equivalised household income, women, England

Women					
2 units or less	35	33	33	36	41
More than 2, up to and including 3 units	10	11	11	11	9
More than 3, up to and including 4 units	10	11	13	9	8
More than 4, up to and including 5 units	8	7	6	7	3
More than 5, up to and including 6 units	11	10	8	8	10
More than 6, up to and including 8 units	7	10	5	7	6
More than 8 units	19	19	24	21	23
More than 3 units	*55*	*56*	*56*	*53*	*50*
More than 6 units	*26*	*29*	*29*	*28*	*29*
Mean number of units	5.6	5.6	5.7	5.7	5.9
Standard error of mean	0.37	0.32	0.33	0.36	0.41

Source: Health Survey for England, 2008

For women there is a slight social gradient in those drinking more than 3 units on any day in the last week. Here the 3 highest income quintiles are roughly even, but the lowest income quintiles maintain the lowest prevalence of drinking more than 2 units. There is no observed social gradient in drinking more than 6 units on any day in the past week.

Table 42 Number of days on which drank alcohol in the last week (age-standardised), by equivalised household income, male, England

Aged 16 and over					*2007*
Number of days	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
Did not drink in last week	15	19	30	39	46
One	14	20	17	15	18
Two	17	18	15	11	11
Three	13	11	11	9	6
Four	11	6	5	6	5
Five	9	7	5	5	2
Six	5	6	2	4	2
Seven	16	14	14	10	11
Drank on five or more days in last week	*30*	*26*	*21*	*19*	*14*
Mean number of days	3.2	2.8	2.4	2.1	1.7
Standard error of mean	0.12	0.12	0.13	0.16	0.13

Source: Health Survey for England, 2008

Again a clear social gradient is observed amongst men for the number of days on which people drank alcohol in the last week. Men in the highest quintile drank more regularly than those in the lowest (3.2 days versus 1.7 days). Those in the lowest quintile were far more likely to have a week without drink (46%) than those in the highest (15%).

Table 43 Number of days on which drank alcohol in the last week (age-standardised), by equivalised household income, female, England

Women					
Did not drink in last week	26	35	40	50	59
One	16	16	22	20	18
Two	16	16	13	13	9
Three	15	8	9	6	4
Four	8	7	5	3	3
Five	6	6	2	2	1
Six	3	4	3	1	1
Seven	10	8	6	5	5
Drank on five or more days in last week	*19*	*18*	*11*	*8*	*6*
Mean number of days	2.4	2.1	1.7	1.3	1.0
Standard error of mean	0.11	0.12	0.09	0.08	0.08

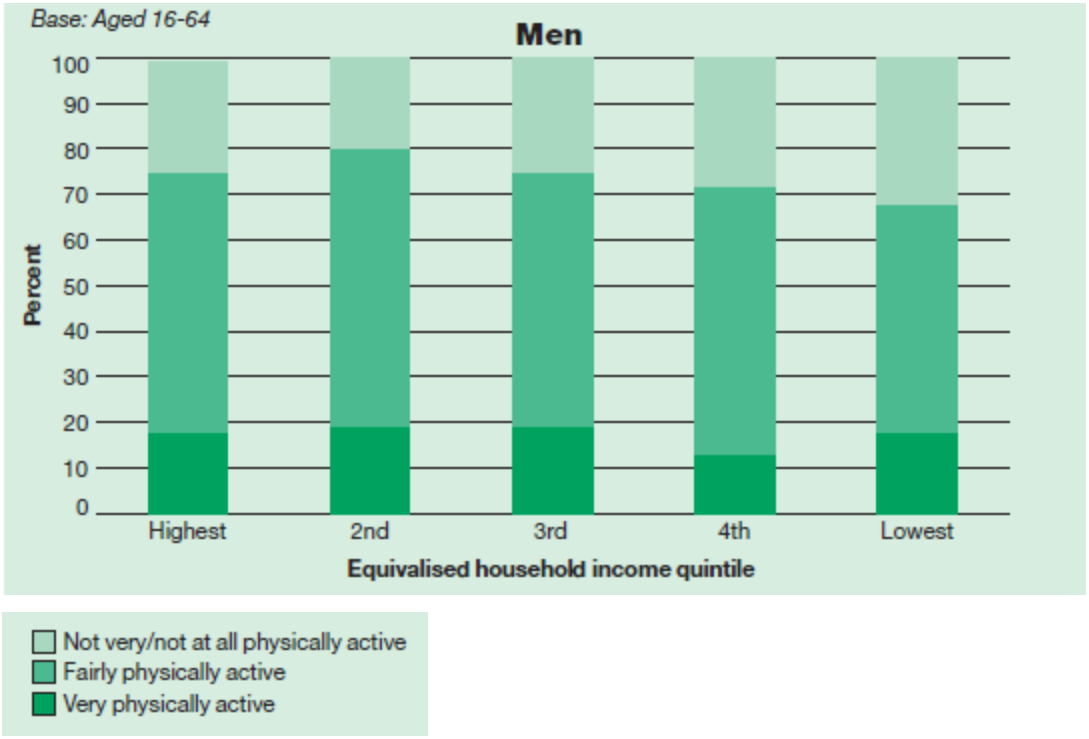
Source: Health Survey for England, 2008

In women, a similar gradient is present; the richest drink more than twice as often as the poorest. The gradient is steeper than for men, however, with the highest income quintile more than 3 times as likely as the lowest to drink on 5 or more days.

ENGLAND

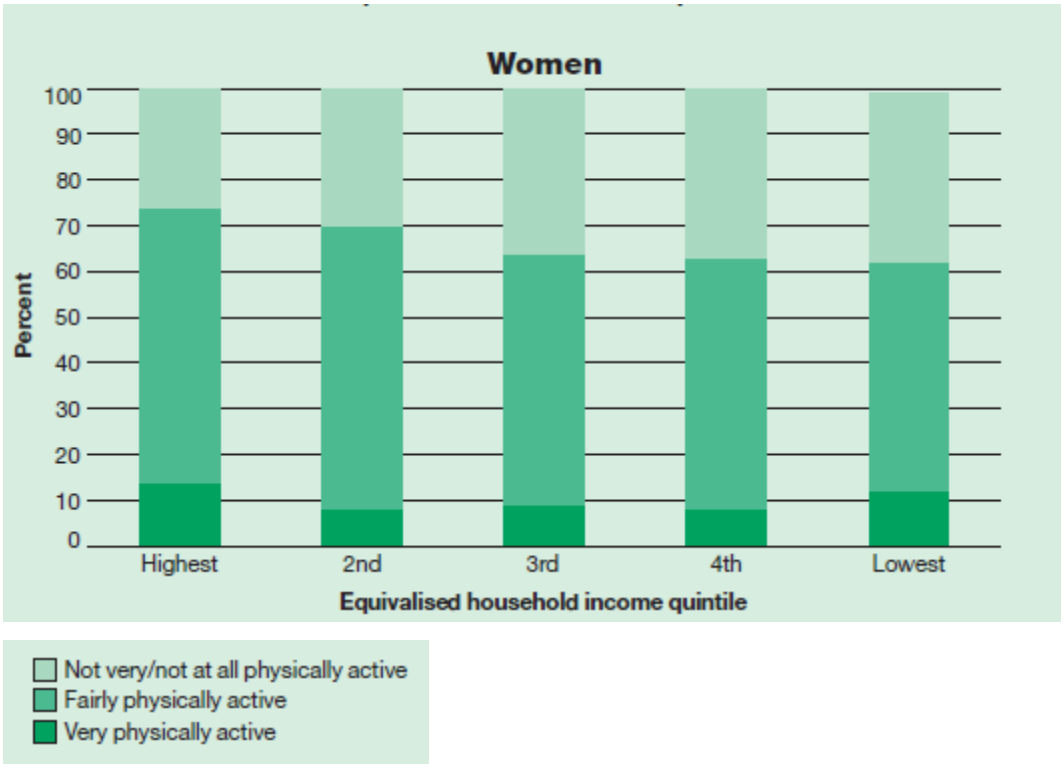
EXERCISE

Figure 15 Perception of own physical activity levels, by equivalised household income, male



Source: Health Survey for England, 2008

Figure 16 Perception of own physical activity levels, by equivalised household income, female



Source: Health Survey for England, 2008

The graphs above show self-perception of activity levels by equivalised household income and gender. For women there is a clear gradient in perceived not very / not at all physically active status with the proportion of women in this category inversely related to income levels. For men a similar picture is seen except men in the highest income quintile are more likely to report this status than their counterparts in the 2nd highest income quintile. No clear gradient can be seen amongst those reporting a perception of being very physically active, but this might tell us more about self-perception than actual levels of activity.

The Health Survey looked at physical fitness levels on samples of around 700 men and women. These data are not disaggregated by class but they have been disaggregated by Spearhead status. Spearhead areas are the most deprived areas of England. They are areas in the bottom fifth nationally for three or more indicators relating to life expectancy at birth, cancer and CVD

mortality and the index of multiple deprivation. As such, the following figures give are a useful proxy for physical activity by social class.

Table 44 Physical fitness levels (age-standardised), by Spearhead status and male, England

Aged 16-74 with step test data[b]		*2008*
Physical fitness	**Spearhead status**	
	Non-Spearhead PCT	Spearhead PCT
Men		
Mean VO_{2max} (ml O_2/min/kg)	35.8	35.1
Standard error of the mean.	0.29	0.40
Equivalence of VO_{2max} level:		
Sustained walking 3mph on the level		
% Light exertion[c]	13	14
% Moderate exertion[c]	86	85
% Severe exertion[c]	0	0
% Maximal exertion[c]	-	-
Sustained walking 3mph up a 5% incline		
% Light exertion[d]	65	59
% Moderate exertion[d]	35	41
% Severe exertion[d]	0	0
% Maximal exertion[d]	-	-

Source: Health Survey for England, 2008

Table 45 Physical fitness levels (age-standardised), by Spearhead status and female, England

Physical fitness	Spearhead status	
	Non-Spearhead PCT	Spearhead PCT
Women		
Mean VO_{2max} (ml O_2/min/kg)	31.4	31.4
Standard error of the mean	0.25	0.36
Equivalence of VO_{2max} level:		
Sustained walking 3mph on the level		
% Light exertion[c]	2	3
% Moderate exertion[c]	97	97
% Severe exertion[c]	0	1
% Maximal exertion[c]	-	-
Sustained walking 3mph up a 5% incline		
% Light exertion[d]	-	-
% Moderate exertion[d]	36	33
% Severe exertion[d]	64	66
% Maximal exertion[d]	0	1
Bases (unweighted)		
Men	*512*	*288*
Women	*576*	*304*
Bases (weighted)		
Men	*581*	*304*
Women	*500*	*249*

[b] At least 4 minutes of step test conducted

[c] Light exertion: VO_{2max} more than 43 ml O_2/min/kg
Moderate exertion: VO_{2max} 21-43 ml O_2/min/kg
Severe exertion: VO_{2max} 13-20 ml O_2/min/kg
Maximal exertion: VO_{2max} less than 13 ml O_2/min/kg

[d] Light exertion: VO_{2max} more than 70 ml O_2/min/kg
Moderate exertion: VO_{2max} 33-70 ml O_2/min/kg
Severe exertion: VO_{2max} 21-32 ml/kg O_2/min/kg
Maximal exertion: VO_{2max} less than 21 ml O_2/min/kg

Source: Health Survey for England, 2008

The tables show that for both sexes a higher proportion of those from Spearhead status areas found walking at 3mph on a 5% incline to be severe exertion (6% more men and 2% more women), indicating a lower level of fitness.

Table 46 Physical fitness levels (age-standardised), by equivalised household income and sex

Aged 16-74 with step test data[a]			*2008*
Physical fitness	**Equivalised household income tertile**		
	Highest	Middle	Lowest
Men			
Mean VO_{2max} (ml O_2/min/kg)	36.1	35.5	35.0
Standard error of the mean	0.41	0.36	0.60
Equivalence of VO_{2max} level:			
Sustained walking 3mph on the level			
% Light exertion[b]	15	12	12
% Moderate exertion[b]	85	88	87
% Severe exertion[b]	0	-	1
% Maximal exertion[b]	-	-	-
Sustained walking 3mph up a 5% incline			
% Light exertion[c]	-	-	-
% Moderate exertion[c]	66	64	59
% Severe exertion[c]	34	36	40
% Maximal exertion[c]	0	-	1
Women			
Mean VO_{2max} (ml O_2/min/kg)	31.6	31.2	30.6
Standard error of the mean	0.33	0.35	0.43
Equivalence of VO_{2max} level:			
Sustained walking 3mph on the level			
% Light exertion[b]	3	1	2
% Moderate exertion[b]	97	98	98
% Severe exertion[b]	0	1	-
% Maximal exertion[b]	-	-	-
Sustained walking 3mph up a 5% incline			
% Light exertion[c]	-	-	-
% Moderate exertion[c]	36	35	28
% Severe exertion[c]	64	64	72
% Maximal exertion[c]	0	1	-
Bases (unweighted)			
Men	*330*	*245*	*112*
Women	*314*	*268*	*166*
Bases (weighted)			
Men	*348*	*276*	*123*
Women	*260*	*235*	*139*

Source: Health Survey for England, 2008

The table above shows the same pattern in terms of household income with a higher percentage of both men and women from the lowest income tertile rating walking at 3mph on a 5% incline as severe exertion. A gradient can be seen across the tertiles for men, whereas for women there is no difference between the highest and middle income tertiles.

ENGLAND

DIET

Table 47 Daily fruit and vegetable consumption (age-standardised), by equivalised household income and men

Aged 16 and over *2007*

Portions per day	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Men					
None	4	5	7	8	14
Less than 1 portion	3	3	1	3	1
1 portion or more but less than 2	11	11	16	25	21
2 portions or more but less than 3	17	19	16	18	18
3 portions or more but less than 4	16	13	19	16	14
4 portions or more but less than 5	15	15	14	9	12
5 portions or more	34	34	28	20	20
Mean	4.1	4.1	3.6	3.0	3.0
Standard error of the mean	0.10	0.15	0.13	0.14	0.16
Median	3.8	3.7	3.3	2.5	2.3

Source: Health Survey for England, 2008

Table 48 Daily fruit and vegetable consumption (age-standardised), by equivalised household income and women

Aged 16 and over					*2007*
Portions per day	**Equivalised household income quintile**				
	Highest	2nd	3rd	4th	Lowest
	%	%	%	%	%
Women					
None	3	3	4	7	10
Less than 1 portion	1	2	2	4	3
1 portion or more but less than 2	12	12	13	16	16
2 portions or more but less than 3	15	14	17	20	19
3 portions or more but less than 4	18	13	20	17	16
4 portions or more but less than 5	16	19	14	13	11
5 portions or more	36	37	31	23	25
Mean	4.2	4.3	4.0	3.4	3.4
Standard error of the mean	0.11	0.12	0.11	0.12	0.12
Median	4.0	4.0	3.5	3.0	3.0
Base (unweighted)					
Men	*627*	*526*	*460*	*462*	*344*
Women	*627*	*565*	*546*	*659*	*532*
Base (weighted)					
Men	*691*	*603*	*502*	*464*	*390*
Women	*593*	*547*	*504*	*571*	*498*

Source: Health Survey for England, 2008

The two tables above show portions of fruit and vegetables eaten daily aggregated by equivalised household income. For both men and women there is a social gradient in terms of the mean number of portions eaten. For men the figures are 4.1 portions for the highest quintile and 3.0 for the lowest; for women, the equivalent figures are 4.2 and 3.4. The differences are statistically significant.

ENGLAND

OBESITY

Table 49 Body Mass Index (BMI), overweight and obesity prevalence (age-standardised), by equivalised household income and male

Aged 16 and over with both valid height and weight measurements *2007*

BMI (kg/m^2) and BMI status (%)[a]	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
Men					
Mean BMI (kg/m^2)	27.4	27.0	27.0	27.4	26.9
Standard error of the mean	0.22	0.22	0.23	0.32	0.38
% Underweight	0	1	1	2	3
% Normal	31	36	36	34	35
% Overweight	44	40	39	36	42
% Obese, excluding morbidly obese	24	22	23	27	17
% Morbidly obese	1	1	1	1	3
% Overweight, including obese	*69*	*63*	*63*	*64*	*62*
% Obese	*25*	*23*	*24*	*28*	*20*
Bases (unweighted)					
Men	*575*	*485*	*424*	*407*	*294*
Women	*551*	*504*	*490*	*548*	*442*
Bases (weighted)					
Men	*635*	*556*	*465*	*410*	*333*
Women	*516*	*486*	*454*	*472*	*415*

[a] Underweight: less than 18.5 kg/m^2
Normal weight : 18.5 to less than 25 kg/m^2
Overweight: 25 to less than 30 kg/m^2
Obese, excluding morbidly obese: 30 to less than 40 kg/m^2
Morbidly obese: 40 kg/m^2 or more
Overweight, including obese: 25 kg/m^2 or more
Obese: 30 kg/m^2 or more

Source: Health Survey for England, 2008

Table 50 Body Mass Index (BMI), overweight and obesity prevalence (age-standardised), by equivalised household income and female

Women					
Mean BMI (kg/m^2)	25.9	26.9	27.3	27.4	27.4
Standard error of the mean	0.27	0.27	0.24	0.30	0.30
% Underweight	2	1	3	2	3
% Normal	49	43	36	37	34
% Overweight	29	31	33	34	36
% Obese, excluding morbidly obese	19	23	26	25	24
% Morbidly obese	2	2	3	3	3
% Overweight, including obese	*49*	*56*	*62*	*62*	*63*
% Obese	*20*	*25*	*28*	*28*	*27*
Bases (unweighted)					
Men	*575*	*485*	*424*	*407*	*294*
Women	*551*	*504*	*490*	*548*	*442*
Bases (weighted)					
Men	*635*	*556*	*465*	*410*	*333*
Women	*516*	*486*	*454*	*472*	*415*

[a] Underweight: less than 18.5 kg/m^2
Normal weight : 18.5 to less than 25 kg/m^2
Overweight: 25 to less than 30 kg/m^2
Obese, excluding morbidly obese: 30 to less than 40 kg/m^2
Morbidly obese: 40 kg/m^2 or more
Overweight, including obese: 25 kg/m^2 or more
Obese: 30 kg/m^2 or more

Source: Health Survey for England, 2008

The two tables above show Body Mass Index (BMI), overweight and obesity prevalence (age-standardised), by equivalised household income and gender. The picture is a curious one. For women a clear social gradient by income quintile is observed witht he prevalence of overweight and obesity combined being inversely related to income. For men there is no clear gradient, but the highest prevalence of overweight and obesity falls in the highest income quintile, the opposite position to females.

Table 51 Waist circumference (age-standardised), by equivalised household income and sex

Aged 16 and over with a valid waist measurement — *2007*

Waist circumference (cm) and raised waist circumference (%)	Equivalised household income quintile				
	Highest	2nd	3rd	4th	Lowest
Men					
Mean waist circumference (cm)	96.8	96.8	95.9	97.5	95.4
Standard error of the mean	0.75	0.64	0.77	1.13	0.88
% with raised waist circumference[a]	32	32	32	38	27
Women					
Mean waist circumference (cm)	84.9	85.6	86.7	88.5	88.4
Standard error of the mean	0.67	0.71	0.68	0.78	0.80
% with raised waist circumference[a]	35	39	41	44	49
Bases (unweighted)					
Men	*490*	*388*	*353*	*346*	*225*
Women	*464*	*427*	*414*	*498*	*339*
Bases (weighted)					
Men	*520*	*435*	*382*	*354*	*264*
Women	*420*	*405*	*381*	*430*	*332*

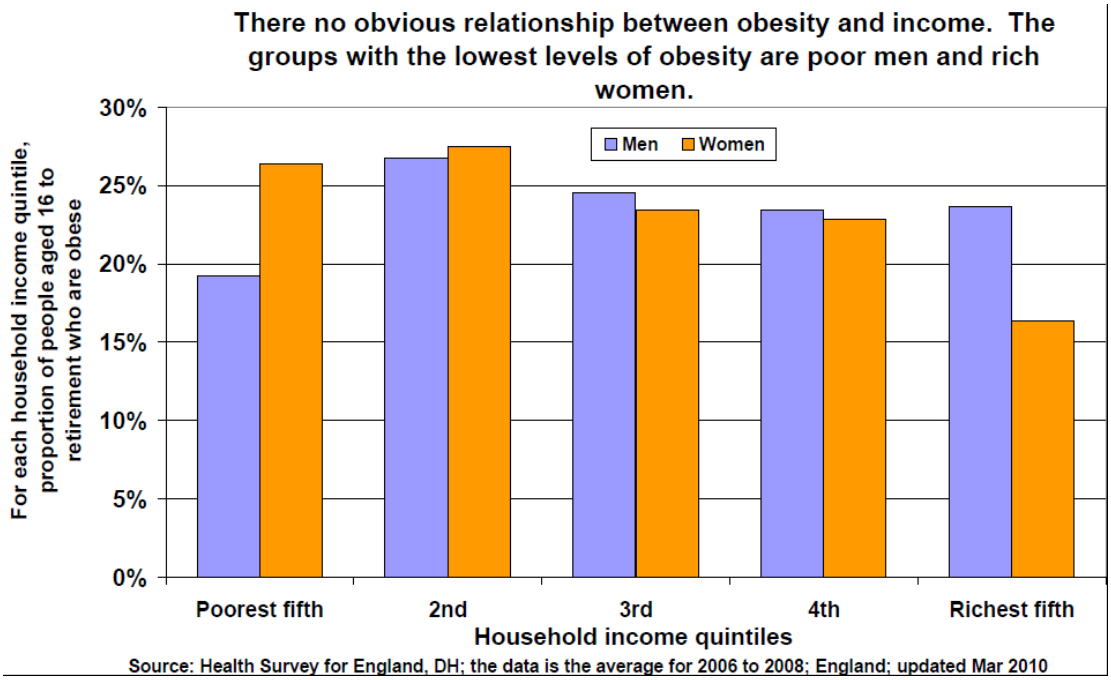
[a] Raised waist circumference has been taken to be greater than 102cm in men and greater than 88cm in women.

Source: Health Survey for England, 2008

In the table above, the same pattern can be seen in relation to waist measurement. In men, the fourth income quintile has the highest percentage with raised waist circumference; the lowest quintile have the lowest. In women, the social gradient between the richest, who have the lowest prevalence of raised waist circumference, and the poorest, who have the highest, is a smooth one.

Overall, the picture is fairly hard to interpret. The conclusion put forward by the Poverty Site is that there is no obvious relationship between obesity and social class. Having said that, there are interesting patterns relating to class. The graph below used at the Poverty Site is helpful in summarising this.

Figure 17 Relationship between obesity and income, England



Source: The Poverty Site

4.3.14 [4.1] Healthy lifestyle [Smoking, alcohol and drugs, exercise, diet (fruit and vegetables), obesity, sexual health

WALES

SMOKING

Table 52 Smoker by socio-economic classification of household reference person, Wales

Per cent

Socio-economic classification of household reference person	Smoker
Age-standardised	
Managerial and professional	15
Intermediate	22
Routine and manual	31
Never worked and long-term unemployed	40
Observed	
Managerial and professional	15
Intermediate	22
Routine and manual	31
Never worked and long-term unemployed	44
All aged 16+	24

Source: Welsh Health Survey

The table above shows that in Wales, 15% of managerial and professional households report a smoker against 40% in the long-term unemployed and those who've never worked. A social gradient is observed across the classifications.

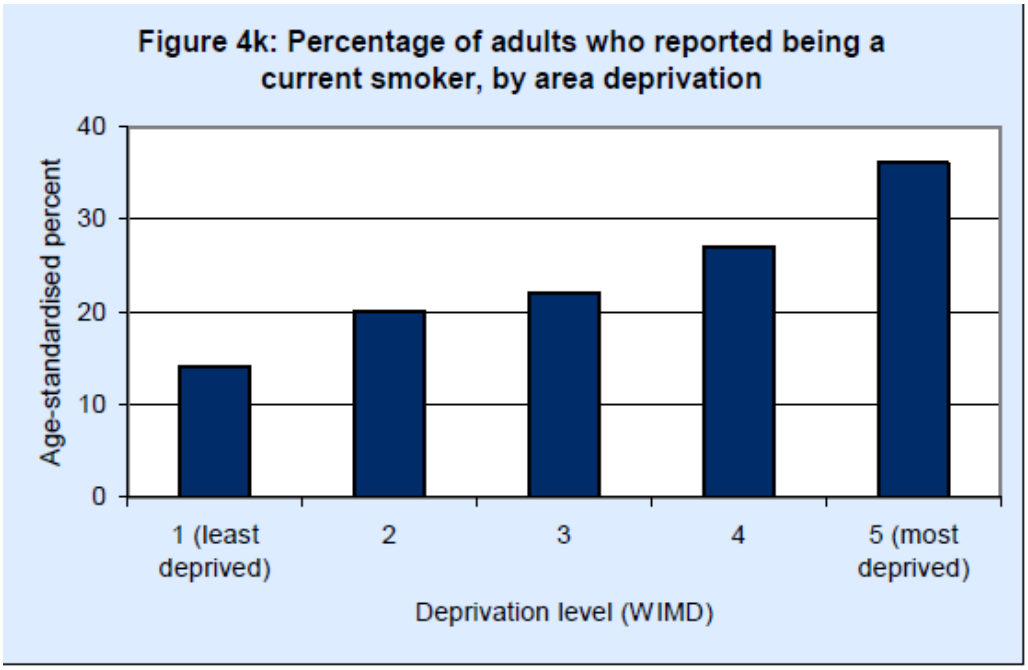
Table 53 Smoker by Welsh index of multiple deprivation quintile

Per cent

2008 Welsh Index of Multiple Deprivation quintile	Smoker
Age-standardised	
1 (least deprived)	14
2	20
3	22
4	27
5 (most deprived)	36
Observed	
1 (least deprived)	14
2	20
3	22
4	27
5 (most deprived)	37
All aged 16+	24

Source: Welsh Health Survey 2008

Figure 18 Smoker by Welsh index of multiple deprivation quintile



Source: Welsh Health Survey

The table and graph above show the link between an area's deprivation level and smoking in Wales. There is a clear social gradient; 14% smoke in the least deprived quintile; 36% in the most deprived.

WALES

ALCOHOL

Table 54 Consumption of alcohol, including binge drinking by socio-economic classification of household reference person, Wales

Per cent

Socio-economic classification of household reference person	Consumption of alcohol	
	Above guidelines (b)	Binge (b)
Age-standardised		
Managerial and professional	49	29
Intermediate	42	25
Routine and manual	43	29
Never worked and long-term unemployed	30	18
Observed		
Managerial and professional	50	30
Intermediate	41	25
Routine and manual	42	28
Never worked and long-term unemployed	30	19
All aged 16+	45	28

(b) Above guidelines is defined as drinking more than 4 and up to 8 units for men, more than 3 and up to 6 for women, in one day; binge drinking is defined as more than 8 units in a day for men, more than 6 for women.

Source: Welsh Health Survey 2008

In Wales, drinking above guidelines is heaviest in the managerial and professional classes; binge drinking is highest in the same class and in routine and manual classes. There is no clear gradient in relation to binge drinking however.

Table 55 Consumption of alcohol above guidelines and binge drinking by Welsh index of multiple deprivation quintile

Per cent

2008 Welsh Index of Multiple Deprivation quintile	Consumption of alcohol	
	Above guidelines (b)	Binge (b)
Age-standardised		
1 (least deprived)	50	30
2	45	27
3	42	26
4	45	30
5 (most deprived)	41	28
Observed		
1 (least deprived)	50	30
2	45	27
3	42	26
4	46	31
5 (most deprived)	41	29
All aged 16+	45	28

Source: Welsh Health Survey 2008

The table above shows that in Wales, drinking above guidelines is most common in the least deprived areas and least common in the most deprived areas. Binge drinking is fairly level through all areas.

WALES

EXERCISE

Table 56 Exercise and physical activity by socio-economic classification of household reference person, Wales

Per cent

Socio-economic classification of household reference person	Exercise or physical activity done: Meets guidelines (d)
Age-standardised	
Managerial and professional	27
Intermediate	32
Routine and manual	32
Never worked and long-term unemployed	25
Observed	
Managerial and professional	27
Intermediate	31
Routine and manual	32
Never worked and long-term unemployed	26
All aged 16+	30

(d) The guidelines on physical activity are that adults do at least 30 minutes of at least moderate intensity physical activity on five or more days a week.

Source: Welsh Health Survey 2008

The table above shows there is no clear relationship between class and likelihood of meeting Government physical activity recommendations.

WALES

DIET

Table 57 Consumption of fruit and vegetables by socio-economic classification of household reference person, Wales

Per cent

Socio-economic classification of household reference person	Consumption of fruit and vegetables Meets guidelines (c)
Age-standardised	
Managerial and professional	40
Intermediate	37
Routine and manual	32
Never worked and long-term unemployed	33
Observed	
Managerial and professional	40
Intermediate	37
Routine and manual	32
Never worked and long-term unemployed	29
All aged 16+	36

(c) The guidelines state that adults should eat five or more portions of fruit and vegetables daily

Source: Welsh Health Survey 2008

In Wales there is a social gradient in relation to consumption of fruit and vegetables; managerial and professional classes are more likely to meet the guidelines than routine and manual workers (40% versus 32%).

Table 58 Consumption of fruit and vegetables by Welsh index of multiple deprivation quintile, Wales

Per cent

2008 Welsh Index of Multiple Deprivation quintile	Consumption of fruit and vegetables: Meets guidelines (c)	E a
Age-standardised		
1 (least deprived)	39	
2	40	
3	37	
4	33	
5 (most deprived)	30	
Observed		
1 (least deprived)	39	
2	41	
3	37	
4	33	
5 (most deprived)	30	
All aged 16+	36	

Source: Welsh Health Survey 2008

There is also a social gradient in relation to the Welsh index of multiple deprivation. Those in the most deprived areas are least likely to eat five portions or more of fruit and vegetables daily (30%); those in the second least deprived area are the most likely to eat the recommended amount (40%) with those in the least deprived area closely behind (39%)

WALES

OBESITY

The Welsh Health Survey disaggregates obesity figures by class and by sex but not by both together. As such, it is not possible to see whether a pattern similar to that in England exists.

Table 59 Obesity by socio-economic classification of household reference person, Wales

Per cent

	Body Mass Index	
Socio-economic classification of household reference person	Overweight or obese (e)	Obese (f)
Age-standardised		
Managerial and professional	54	18
Intermediate	58	19
Routine and manual	61	25
Never worked and long-term unemployed	56	21
Observed		
Managerial and professional	55	18
Intermediate	58	19
Routine and manual	61	25
Never worked and long-term unemployed	53	19
All aged 16+	57	21

Source: Welsh Health Survey 2008

The Welsh data show that adults in routine manual work are more likely to be obese than those in professional and managerial work (25% versus 18%).

Table 60 Obesity by Welsh index of multiple deprivation quintile, Wales

Per cent

2008 Welsh Index of Multiple Deprivation quintile	Body Mass Index	
	Overweight or obese (e)	Obese (f)
Age-standardised		
1 (least deprived)	53	16
2	56	18
3	57	20
4	60	24
5 (most deprived)	61	27
Observed		
1 (least deprived)	53	16
2	56	18
3	57	20
4	60	23
5 (most deprived)	60	27
All aged 16+	57	21

Source: Welsh Health Survey 2008

The table above shows that there is also a clear social gradient in relation to obesity and index of multiple deprivation. Those in the most deprived areas of Wales are more likely to be obese (27%) than those in the least deprived areas (16%).

4.3.14 [4.1] Healthy lifestyle [Smoking, alcohol and drugs, exercise, diet (fruit and vegetables), obesity, sexual health

SCOTLAND

SMOKING

Table 61 Self-reported cigarette smoking status (observed and age-standardised), by NS-SEC of household reference person, male, Scotland

Aged 16 and over — *2008*

Cigarette smoking status	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Observed					
Never smoked cigarettes at all	53	43	43	39	39
Used to smoke cigarettes occasionally	5	6	4	2	3
Used to smoke cigarettes regularly	25	23	25	28	23
Current cigarette smoker	17	28	28	31	35
Mean number of cigarettes smoked per smoker per day	12.9	13.8	17.9	17.4	16.6
Standard error of the mean	1.07	1.31	1.46	1.06	0.67
Standardised					
Never smoked cigarettes at all	53	42	45	41	38
Used to smoke cigarettes occasionally	5	5	4	2	3
Used to smoke cigarettes regularly	25	27	22	25	23
Current cigarette smoker	17	26	29	32	36
Mean number of cigarettes smoked per smoker per day	12.8	14.1	17.0	17.2	16.7
Standard error of the mean	1.10	1.36	1.57	1.06	0.67
Bases (weighted):	*1114*	*280*	*269*	*429*	*921*
Bases (unweighted):	*988*	*234*	*284*	*418*	*861*

Source: Scottish Health Survey, 2008

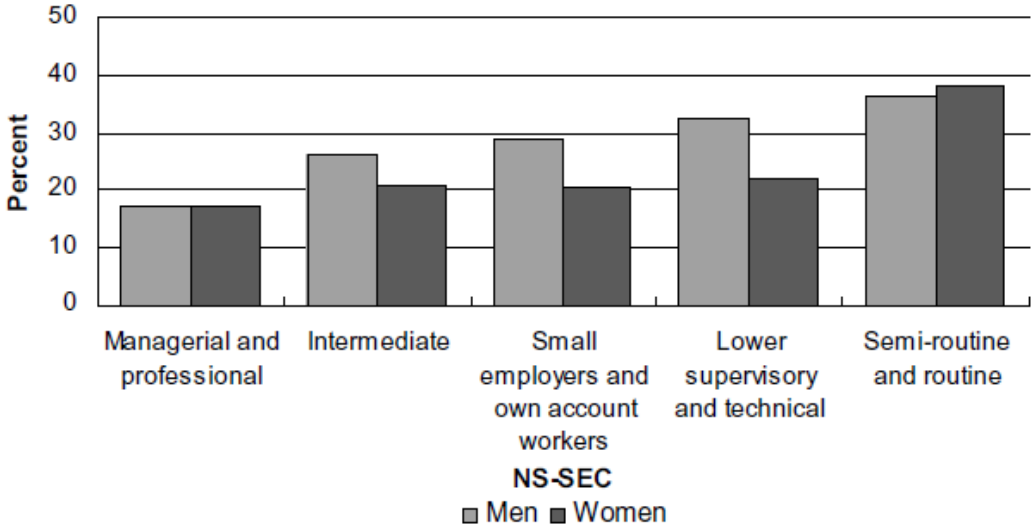
Table 62 Self-reported cigarette smoking status (observed and age-standardised), by NS-SEC of household reference person, female, Scotland

Aged 16 and over *2008*

Cigarette smoking status	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Women					
Observed					
Never smoked cigarettes at all	56	50	51	48	35
Used to smoke cigarettes occasionally	5	7	5	6	4
Used to smoke cigarettes regularly	21	22	23	23	24
Current cigarette smoker	18	20	21	22	36
Mean number of cigarettes smoked per smoker per day	11.7	13.0	13.7	14.2	14.7
Standard error of the mean	0.54	0.77	1.08	0.89	0.49
Standardised					
Never smoked cigarettes at all	56	50	52	48	35
Used to smoke cigarettes occasionally	5	7	6	7	4
Used to smoke cigarettes regularly	22	22	22	23	23
Current cigarette smoker	17	21	20	22	38
Mean number of cigarettes smoked per smoker per day	11.8	13.4	13.5	14.0	14.8
Standard error of the mean	0.56	0.82	1.04	0.84	0.53
Bases (weighted):	*1211*	*381*	*278*	*327*	*1064*
Bases (unweighted):	*1229*	*390*	*333*	*376*	*1178*

Source: Scottish Health Survey, 2008

Figure 19 Current cigarette smoking (age-standardised), by NSSEC of household reference person and sex, Scotland



Source: Scottish Health Survey, 2008

The two tables and the graph above show that, in Scotland, smoking patterns exhibit a clear social gradient by NS-SEC. Levels are highest in men and women in semi-routine and routine households and lowest among those in managerial and professional households. For example, amongst men, 36% of the former are current smokers against 17% of the latter; the equivalent figures for women are 38% versus 16%.

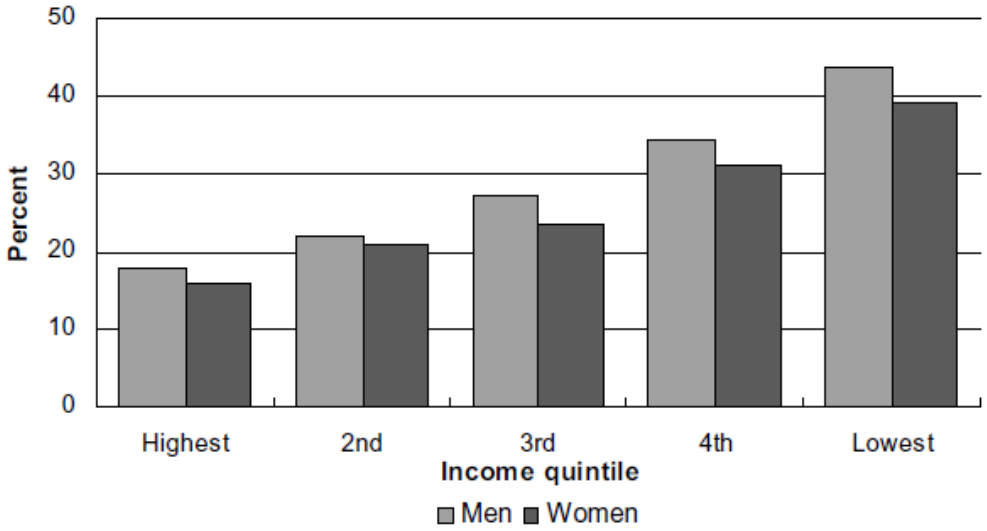
Table 63 Current cigarette smoking (age-standardised), by equivalised household income quintile and male, Scotland

Aged 16 and over *2008*

Cigarette smoking status	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
Current cigarette smoker	18	22	27	34	44
Bases (weighted):	*650*	*557*	*592*	*426*	*434*
Bases (unweighted):	*534*	*529*	*528*	*462*	*406*
Women					
Standardised					
Current cigarette smoker	16	21	23	31	39
Bases (weighted):	*609*	*575*	*595*	*538*	*561*
Bases (unweighted):	*581*	*628*	*625*	*639*	*614*

Source: Scottish Health Survey, 2008

Figure 20 Current cigarette smoking (age-standardised), by equivalised household income quintile and sex, Scotland



Source: Scottish Health Survey, 2008

A similar social gradient is seen in relation to household income quintiles, as we see in the table and graph above, with smoking prevalence inversely related to household income. 18% of men are current smokers in the highest quintile against 44% in the lowest; the equivalent figures for women are 16% and 39%.

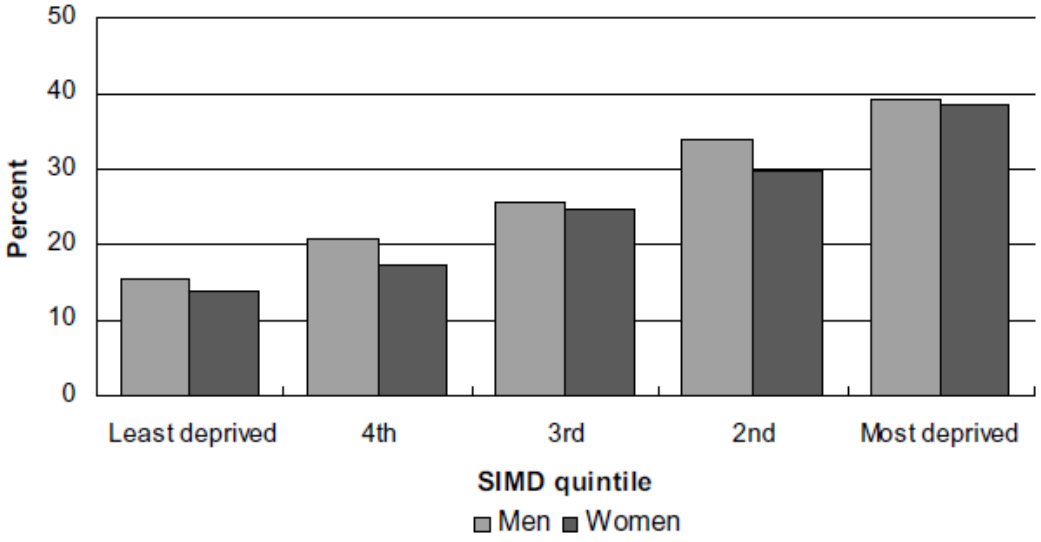
Table 64 Current cigarette smoking (age-standardised), by Scottish Index of Multiple Deprivation quintile and sex

Aged 16 and over *2008*

Cigarette smoking status	Scottish Index of Multiple Deprivation Quintile					SIMD 85/15	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
Current cigarette smoker	15	21	25	34	39	24	42
Bases (weighted):	*547*	*748*	*560*	*630*	*581*	*2640*	*426*
Bases (unweighted):	*482*	*743*	*591*	*543*	*470*	*2474*	*355*
Women							
Standardised							
Current cigarette smoker	14	17	25	30	39	22	41
Bases (weighted):	*626*	*741*	*629*	*687*	*666*	*2847*	*501*
Bases (unweighted):	*618*	*898*	*753*	*677*	*654*	*3095*	*505*

Source: Scottish Health Survey, 2008

Figure 21 Current cigarette smoking (age-standardised), by Scottish Index of Multiple Deprivation quintile and sex



Source: Scottish Health Survey, 2008

And as the graph and table above show, the same pattern emerges again by Scottish Index of Multiple Deprivation, with smoking levels in the most deprived areas being more than double those in the least deprived, for both men and women.

SCOTLAND

ALCOHOL

Table 65 Estimated usual weekly alcohol consumption level (age-standardised), by NS-SEC of household reference person and sex, Scotland

Aged 16 and over *2008*

Alcohol units per week	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Standardised					
% drinking more than 21 units a week	32	28	34	31	28
% drinking more than 50 units a week	5	6	8	8	10
Estimated mean weekly units of alcohol	17.4	17.1	19.4	18.1	18.9
Standard error of mean	0.70	1.67	2.06	1.26	1.34
Women					
Standardised					
% drinking more than 14 units a week	26	20	18	15	17
% drinking more than 35 units a week	4	4	2	5	5
Estimated mean weekly units of alcohol	9.8	8.9	8.2	7.8	8.4
Standard error of mean	0.49	0.83	1.39	0.99	0.73
Bases (weighted):					
Men	*1105*	*274*	*265*	*424*	*895*
Women	*1202*	*376*	*278*	*326*	*1053*
Bases (unweighted):					
Men	*983*	*230*	*281*	*416*	*844*
Women	*1223*	*386*	*333*	*375*	*1169*

Source: Scottish Health Survey, 2008

Table 66 Estimated usual weekly alcohol consumption level (age-standardised), by equivalised household income quintile and sex, Scotland

Aged 16 and over *2008*

Alcohol units per week	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
% drinking more than 21 units a week	36	34	33	26	25
% drinking more than 50 units a week	9	6	8	6	10
Estimated mean weekly units of alcohol	19.5	18.4	19.4	17.3	19.7
Standard error of mean	1.02	0.98	1.48	2.10	2.20
Women					
Standardised					
% drinking more than 14 units a week	29	20	19	18	17
% drinking more than 35 units a week	6	3	3	3	8
Estimated mean weekly units of alcohol	11.2	8.0	8.2	7.6	9.8
Standard error of mean	0.86	0.56	0.63	0.65	1.29
Bases (weighted):					
Men	*644*	*547*	*578*	*423*	*425*
Women	*604*	*569*	*592*	*533*	*554*
Bases (unweighted):					
Men	*531*	*524*	*522*	*460*	*396*
Women	*577*	*625*	*622*	*635*	*608*

Source: Scottish Health Survey, 2008

Figure 22 Proportion exceeding government guidelines on weekly alcohol consumption (age-standardised), by equivalised household income quintile and sex, Scotland

Source: Scottish Health Survey, 2008

Table 67 Estimated usual weekly alcohol consumption level (age-standardised), by Scottish Index of Multiple Deprivation and sex, Scotland

Aged 16 and over *2008*

Alcohol units per week	Scottish Index of Multiple Deprivation quintile					SIMD 85/15	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
% drinking more than 21 units a week	31	31	29	29	31	30	31
% drinking more than 50 units a week	5	7	6	7	10	7	11
Estimated mean weekly units of alcohol	16.6	18.1	17.4	16.8	20.6	17.5	21.2
Standard error of mean	0.99	1.07	1.10	1.06	1.71	0.52	2.18
Women							
Standardised							
% drinking more than 14 units a week	25	21	19	20	16	21	15
% drinking more than 35 units a week	4	4	3	4	5	4	4
Estimated mean weekly units of alcohol	9.3	8.8	8.3	8.4	8.0	8.9	7.7
Standard error of mean	0.59	0.63	0.72	0.95	0.67	0.39	0.79
Bases (weighted):							
Men	*544*	*739*	*545*	*616*	*567*	*2599*	*413*
Women	*617*	*735*	*626*	*682*	*659*	*2824*	*495*
Bases (unweighted):							
Men	*481*	*735*	*584*	*535*	*461*	*2449*	*347*
Women	*613*	*894*	*751*	*673*	*648*	*3079*	*500*

Source: Scottish Health Survey, 2008

The tables and graphs above paint a complex picture of alcohol intake and relation to socioeconomic factors. Among women, levels of weekly consumption are associated with socioeconomic classification, household income and area deprivation. Levels of consumption are highest amongst the managerial and professional, highest income and least deprived group. Among men, there is a clear social gradient in the proportion of men with alcohol consumption above government guidelines by income quintile, with the highest proportion exceeding government guidelines being from the

highest income quintile. However, men in the most deprived areas are more likely to drink above 50 units a week.

Table 68 Estimated alcohol consumption level on heaviest drinking day in past week (age-standardised), by NS-SEC of household reference person and sex, Scotland

Aged 16 and over *2008*

Alcohol units per day	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Standardised					
Consumed over 4 units	*46*	*46*	*42*	*47*	*41*
Consumed over 8 units	*27*	*26*	*29*	*28*	*26*
Mean units	6.2	5.7	6.9	7.0	6.1
Standard error of the mean	0.29	0.49	0.72	0.61	0.41
Bases (weighted):	*1099*	*274*	*263*	*422*	*904*
Bases (unweighted):	*979*	*231*	*281*	*415*	*851*
Women					
Standardised					
Consumed over 3 units	*39*	*42*	*33*	*36*	*34*
Consumed over 6 units	*19*	*22*	*16*	*18*	*17*
Mean units	3.7	3.7	3.0	3.2	3.6
Standard error of the mean	0.19	0.29	0.27	0.30	0.36
Bases (weighted):	*1198*	*378*	*276*	*325*	*1060*
Bases (unweighted):	*1221*	*387*	*332*	*374*	*1173*

Source: Scottish Health Survey, 2008

Table 69 Estimated alcohol consumption level on heaviest drinking day in past week (observed and age-standardised), by equivalised household income quintile and sex, Scotland

Aged 16 and over *2008*

Alcohol units per day	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
Consumed over 4 units	*52*	*47*	*43*	*43*	*35*
Consumed over 8 units	*30*	*29*	*26*	*26*	*23*
Mean units	6.8	6.9	6.4	5.6	5.5
Standard error of the mean	0.42	0.53	0.48	0.60	0.58
Bases (weighted):	*646*	*549*	*574*	*419*	*433*
Bases (unweighted):	*531*	*522*	*521*	*459*	*403*
Women					
Standardised					
Consumed over 3 units	*46*	*39*	*38*	*33*	*28*
Consumed over 6 units	*24*	*16*	*18*	*18*	*15*
Mean units	4.3	3.4	3.4	3.2	3.3
Standard error of the mean	0.30	0.22	0.24	0.24	0.56
Bases (weighted):	*606*	*567*	*583*	*536*	*560*
Bases (unweighted):	*579*	*622*	*618*	*636*	*613*

Source: Scottish Health Survey, 2008

Table 70 Estimated alcohol consumption on heaviest drinking day in past week (age-standardised), by Scottish Index of Multiple Deprivation and sex, Scotland

Aged 16 and over *2008*

Alcohol units per day	Scottish Index of Multiple Deprivation quintile					SIMD 85/15	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
Consumed over 4 units	*44*	*45*	*45*	*43*	*42*	*44*	*44*
Consumed over 8 units	*25*	*27*	*29*	*27*	*27*	*27*	*28*
Mean units	5.9	6.3	6.4	6.1	6.4	6.2	6.8
Standard error of the mean	0.44	0.40	0.42	0.46	0.51	0.20	0.65
Bases (weighted):	*542*	*734*	*549*	*619*	*570*	*2599*	*416*
Bases (unweighted):	*479*	*734*	*586*	*537*	*465*	*2450*	*351*
Women							
Standardised							
Consumed over 3 units	*42*	*36*	*35*	*38*	*31*	*38*	*30*
Consumed over 6 units	*20*	*18*	*17*	*17*	*17*	*18*	*18*
Mean units	3.9	3.3	3.4	3.7	3.0	3.6	3.0
Standard error of the mean	0.27	0.21	0.27	0.46	0.21	0.18	0.22
Bases (weighted):	*620*	*732*	*622*	*680*	*666*	*2820*	*501*
Bases (unweighted):	*615*	*891*	*747*	*672*	*654*	*3074*	*505*

Source: Scottish Health Survey, 2008

The tables above show that in terms of daily drink levels, there is no clear relationship between those drinking above recommended limits or binge drinking (over double the daily recommended limit) by NS-SEC in men or women. However, in terms of household income, for men, daily consumption is directly related to household income such that the poorest drink least. The pattern for binge drinking is similar. Mean units drunk were also highest among those with higher incomes (6.8 units in the highest income group compared to 5.5 units in the lowest). A similar pattern is seen in women, with the highest income quintile more likely to drink above three units than the lowest; however, binge drinking (above six units) has no such pattern.

Area deprivation was significantly associated with daily drinking patterns for women (the most deprived least likely to drink above three units) but not for men.

SCOTLAND

EXERCISE

Table 71 Proportion meeting the current physical activity recommendations by NS-SEC of household reference person and sex, Scotland

Aged 16 and over *2008*

Proportion meeting recommendations	**NS-SEC of household reference person**				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Observed	47	42	51	47	41
Standardised	45	38	55	49	42
Women					
Observed	38	28	36	28	31
Standardised	36	29	35	28	33
Bases (weighted):					
Men	*1122*	*280*	*269*	*434*	*924*
Women	*1215*	*384*	*280*	*328*	*1073*
Bases (unweighted):					
Men	*993*	*234*	*283*	*420*	*860*
Women	*1229*	*391*	*334*	*377*	*1185*

Source: Scottish Health Survey, 2008

Table 72 Proportion meeting the current physical activity recommendations by equivalised household income quintile and sex, Scotland

Aged 16 and over *2008*

Proportion meeting recommendations	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Observed	54	49	49	35	36
Standardised	50	48	47	41	35
Women					
Observed	44	37	32	24	27
Standardised	40	35	31	28	28
Bases (weighted):					
Men	*654*	*564*	*592*	*426*	*438*
Women	*612*	*577*	*595*	*544*	*568*
Bases (unweighted):					
Men	*535*	*533*	*526*	*462*	*408*
Women	*583*	*629*	*625*	*642*	*618*

Source: Scottish Health Survey, 2008

Table 73 Proportion meeting the current physical activity recommendations by Scottish Index of Multiple Deprivation and sex

Aged 16 and over *2008*

Proportion meeting recommendations	Scottish Index of Multiple Deprivation quintile					SIMD 85/15	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Observed	44	44	50	46	40	46	36
Standardised	46	44	51	45	38	47	35
Women							
Observed	40	32	32	34	29	34	29
Standardised	39	32	32	33	28	34	28
Bases (weighted):							
Men	*548*	*757*	*563*	*630*	*587*	*2657*	*428*
Women	*629*	*743*	*629*	*695*	*674*	*2862*	*508*
Bases (unweighted):							
Men	*483*	*747*	*592*	*543*	*472*	*2481*	*356*
Women	*620*	*902*	*753*	*683*	*657*	*3107*	*508*

Source: Scottish Health Survey, 2008

In Scotland there are differences in the proportion meeting activity recommendations by NS-SEC for both men and women. The pattern is not one of a straightforward gradient, however. The relationship by household income does show a clear social gradient, with Standardised data indicating that 50% of men and 40% of women in the highest income quintile households met the recommendations compared to 35% and 28% in the lowest. When viewed by area level deprivation using SIMD score the data show that men and women in the most deprived quintile of Scottish areas were least likely to have met the activity recommendations. For men though, the pattern is not linear as those in the third quintile were most likely to have met them. For women the relationship is more linear by deprivation.

SCOTLAND

DIET

Table 74 Fruit and vegetable consumption (age-standardised), by NS-SEC of household reference person and sex, Scotland

Aged 16 and over *2008*

Portions per day	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Standardised					
None	6	9	7	15	15
Less than 5 portions	68	68	73	68	71
5 portions or more	26	23	19	17	14
Mean	3.6	3.1	3.2	2.8	2.6
Standard error of the mean	0.10	0.19	0.18	0.14	0.20
Median	3.0	2.7	3.0	2.4	2.0
Women					
Standardised					
None	4	8	5	7	11
Less than 5 portions	65	69	70	75	72
5 portions or more	31	23	25	17	17
Mean	3.9	3.4	3.5	3.1	2.8
Standard error of the mean	0.09	0.15	0.17	0.14	0.09
Median	3.7	3.0	3.3	2.9	2.3
Bases (weighted):					
Men	*1123*	*280*	*269*	*434*	*925*
Women	*1218*	*386*	*279*	*330*	*1074*
Bases (unweighted):					
Men	*994*	*234*	*284*	*420*	*863*
Women	*1233*	*393*	*334*	*379*	*1187*

Source: Scottish Health Survey, 2008

Table 75 Fruit and vegetable consumption (age-standardised), by equivalised household income quintile and sex, Scotland

Aged 16 and over *2008*

Portions per day	**Equivalised annual household income quintile**				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
None	5	9	14	11	16
Less than 5 portions	67	69	68	73	72
5 portions or more	28	22	18	16	12
Mean	3.8	3.3	2.9	2.7	2.5
Standard error of the mean	0.20	0.15	0.12	0.16	0.15
Median	3.3	3.0	2.5	2.0	2.0
Women					
Standardised					
None	5	5	8	9	12
Less than 5 portions	60	68	67	71	71
5 portions or more	35	26	25	21	18
Mean	4.3	3.6	3.4	3.1	2.8
Standard error of the mean	0.17	0.11	0.11	0.14	0.12
Median	4.0	3.3	3.0	2.7	2.3
Bases (weighted):					
Men	*655*	*564*	*592*	*426*	*438*
Women	*614*	*578*	*596*	*546*	*569*
Bases (unweighted):					
Men	*536*	*533*	*528*	*462*	*408*
Women	*584*	*630*	*626*	*644*	*619*

Source: Scottish Health Survey, 2008

Table 76 Fruit and vegetable consumption (age-standardised), by Scottish Index of Multiple Deprivation and sex

Aged 16 and over *2008*

Portions per day	Scottish Index of Multiple Deprivation quintile					SIMD 85/15	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
None	4	6	8	15	18	9	16
Less than 5 portions	71	66	70	72	72	69	74
5 portions or more	25	28	22	13	9	22	10
Mean	3.5	3.8	3.2	2.6	2.2	3.2	2.3
Standard error of the mean	0.12	0.20	0.13	0.11	0.10	0.08	0.12
Median	3.0	3.3	2.9	2.0	2.0	2.7	2.0
Women							
Standardised							
None	4	4	6	9	13	6	14
Less than 5 portions	65	65	74	71	71	69	71
5 portions or more	31	31	19	20	16	25	16
Mean	4.0	3.8	3.3	3.1	2.7	3.5	2.7
Standard error of the mean	0.13	0.10	0.10	0.11	0.11	0.06	0.12
Median	3.7	3.5	3.0	2.5	2.3	3.0	2.2
Bases (weighted):							
Men	*550*	*757*	*564*	*630*	*587*	*2659*	*428*
Women	*629*	*746*	*629*	*695*	*677*	*2866*	*509*
Bases (unweighted):							
Men	*484*	*747*	*594*	*543*	*472*	*2484*	*356*
Women	*620*	*905*	*753*	*683*	*660*	*3112*	*509*

Source: Scottish Health Survey, 2008

The tables above show significant variation in numbers eating more than five portions of fruit and vegetables a day by all the measures of class in Scotland: NS-SEC, household income and deprivation of area. The data shows a clear social gradient with the poorest least likely to eat the recommended five portions. The inverse relationship exists for likelihood of eating no fruit and vegetables. The relationship exists for both sexes. For example, 25% of men in the least deprived quintile consumed the five portions or more; 9% of men in the least deprived quintile. The corresponding figures for women are 31% and 16%.

SCOTLAND

OBESITY

Table 77 Overweight and obesity prevalence and mean BMI (age-standardised), by NS-SEC of household reference person and sex

Aged 16 and over with both valid height and weight measurements *2008*

BMI (kg/m^2) and BMI status	NS-SEC of household reference person				
	Managerial & professional	Intermediate	Small employers & own account workers	Lower supervisory & technical	Semi-routine & routine
	%	%	%	%	%
Men					
Standardised					
25 and over (overweight / obese / morbidly obese)	68.2	67.5	76.5	66.7	68.6
30 and over (obese / morbidly obese)	26.4	26.7	23.9	26.5	26.6
40 and over (morbidly obese)	1.4	0.8	1.6	2.4	1.1
Mean	27.3	27.5	27.8	27.5	27.3
Standard error of the mean	0.19	0.36	0.37	0.36	0.21
Women					
Standardised					
25 and over (overweight / obese / morbidly obese)	58.7	62.5	63.3	72.8	61.8
30 and over (obese / morbidly obese)	24.0	28.7	27.5	34.7	28.5
40 and over (morbidly obese)	2.0	3.8	2.9	3.8	4.6
Mean	26.8	27.6	27.5	28.7	27.6
Standard error of the mean	0.20	0.36	0.42	0.45	0.23
Bases (weighted):					
Men	*1011*	*254*	*231*	*370*	*786*
Women	*1039*	*329*	*239*	*286*	*874*
Bases (unweighted):					
Men	*883*	*207*	*246*	*361*	*728*
Women	*1047*	*334*	*282*	*324*	*962*

Source: Scottish Health Survey, 2008

Table 78 Overweight and obesity prevalence and mean BMI (age-standardised), by equivalised household income quintile and sex

Aged 16 and over with both valid height and weight measurements *2008*

BMI (kg/m^2) and BMI status	Equivalised annual household income quintile				
	1st (highest)	2nd	3rd	4th	5th (lowest)
	%	%	%	%	%
Men					
Standardised					
25 and over (overweight / obese / morbidly obese)	73.0	72.1	65.5	73.4	59.0
30 and over (obese / morbidly obese)	28.1	27.2	26.8	27.8	21.7
40 and over (morbidly obese)	1.0	0.8	1.6	1.9	1.7
Mean	27.7	27.5	27.4	27.6	26.6
Standard error of the mean	0.24	0.25	0.29	0.39	0.30
Women					
Standardised					
25 and over (overweight / obese / morbidly obese)	55.1	64.4	67.0	66.7	60.9
30 and over (obese / morbidly obese)	21.6	28.5	30.7	34.0	28.8
40 and over (morbidly obese)	1.1	2.9	3.4	5.0	4.3
Mean	26.3	27.6	27.9	28.3	27.6
Standard error of the mean	0.31	0.29	0.30	0.33	0.38
Bases (weighted):					
Men	*588*	*511*	*536*	*373*	*366*
Women	*533*	*501*	*519*	*459*	*472*
Bases (unweighted):					
Men	*475*	*487*	*467*	*408*	*346*
Women	*506*	*540*	*542*	*543*	*519*

Source: Scottish Health Survey, 2008

Table 79 Overweight and obesity prevalence and mean BMI (age-standardised), by Scottish Index of Multiple Deprivation and sex

Aged 16 and over with both valid height and weight measurements *2008*

BMI (kg/m^2) and BMI status	Scottish Index of Multiple Deprivation quintile					SIMD 85/15	
	5th (least deprived)	4th	3rd	2nd	1st (most deprived)	85% least deprived	15% most deprived
	%	%	%	%	%	%	%
Men							
Standardised							
25 and over (overweight / obese / morbidly obese)	70.1	69.9	68.7	68.2	67.6	69.3	65.8
30 and over (obese / morbidly obese)	25.3	24.5	26.4	27.4	28.6	26.2	25.9
40 and over (morbidly obese)	0.5	1.2	1.9	2.0	1.3	1.4	0.9
Mean	27.4	27.3	27.5	27.4	27.4	27.4	27.2
Standard error of the mean	0.26	0.25	0.30	0.29	0.25	0.13	0.28
Women							
Standardised							
25 and over (overweight / obese / morbidly obese)	54.3	60.7	64.4	66.5	63.7	61.9	61.9
30 and over (obese / morbidly obese)	20.1	25.2	27.5	32.1	33.3	26.7	32.3
40 and over (morbidly obese)	1.8	2.6	4.3	3.9	4.4	3.2	4.6
Mean	26.3	27.3	27.6	28.0	28.0	27.4	27.8
Standard error of the mean	0.25	0.26	0.30	0.31	0.30	0.15	0.35
Bases (weighted):							
Men	*483*	*681*	*482*	*551*	*496*	*2340*	*352*
Women	*550*	*631*	*517*	*580*	*551*	*2421*	*408*
Bases (unweighted):							
Men	*421*	*660*	*506*	*475*	*395*	*2165*	*292*
Women	*540*	*760*	*616*	*570*	*534*	*2615*	*405*

Source: Scottish Health Survey, 2008

The tables above show little relationship between NS-SEC class and obesity. For men only, household NS-SEC is associated with being overweight or obese. Those living in small employer and own account household and those in semi-routine or routine households are more likely to be overweight than those in managerial and professional household. The pattern is statistically significant but not that striking. For women, being overweight or obese was associated with equivalised household income and SIMD quintile. The social gradient in 30+ and 40+ BMI by equivalised household income for women shows that the highest income quintile have the lowest rates, and that

prevalence rises up to the fourth quintile, before reducing slightly for the fifth quintile. The data for overweight and obesity by SIMD scores shows the same social gradient covering all quintiles. Women living in the most deprived quintiles had significantly increased risk of being overweight or obese. The pattern is stronger in relation to obesity and morbid obesity. 36.9% of women in the most deprived quintile were obese or morbidly obese; the equivalent figure for the least deprived quintile is 21.9%.

4.4 Cross-over themes

Socio-economic class is closely linked to inequalities in several of the strands. In general, these are discussed in the strand-specific chapters. However, the following points are relevant.

Age

The inequalities of age are generally worse for those of lower socio-economic status. The relationship is one-way in that age seems to have no causal relationship with lower socio-economic status; those who start life poor generally end it poor.

Disability

The inequalities of disability are generally worse for those of lower socio-economic status. However, the relationship is two-way. Poor disabled people do worse than those wealthier for some indicators. But disability itself seems to affect economic prospects such that disabled people are more likely to be poor than the able-bodied, as we show in the disability chapter.

Ethnicity [including refugees, asylum seekers, travellers]

The inequalities of ethnicity are generally worse for those of lower socio-economic status. However, the relationship is complex. Some BME groups are overwhelmingly situated within particular socio-economic groups. For example, those of Bangladeshi origin are mainly poor. The result is that the life and health inequalities suffered by Bangladeshi's can sometimes apparently be explained purely in class terms; this occurs when figures are adjusted to take account of socio-economic status. The problem with doing this is that it can give the impression that ethnicity is unimportant in understanding health and life inequalities, that inequality is all about class. This is a false conclusion.

In the first place, there is sometimes an ethnic penalty on top of differences due to class. But more importantly, where a statistical adjustment has to be made for ethnicity it shows that ethnic groups are disproportionately

represented within certain classes. The inequalities of class are manifested through ethnicity and vice versa. Tackling inequalities that are linked to class and ethnicity will require different strategies to tackling those linked to class alone or ethnicity alone.

Gender

See the strand-specific chapters

LBG & Trans

See the strand-specific chapters

4.5 Health and life: Discussion

'We can't escape the fact that today many of our most severe health problems are caused, in part, by the wrong personal choices. Obesity, binge-drinking, smoking and drug addiction are putting millions of lives at risk and costing our health services billions a year. So getting to grips with them requires an altogether different approach to the one we've seen before. We need to promote more responsible behaviour and encourage people to make the right choices about what they eat, drink and do in their leisure time.' (David Cameron, foreword, A Healthier Nation, *Policy Green Paper No.12, Conservative Party 2010 p. 4-5.)*

Socio-economic status (or class) is not one of the Equalities and Human Rights Commission's inequality strands. However, class-based inequalities in indicators of life and health are well documented and striking.

The inequalities interact with inequalities in the inequality strands in complex ways. Some inequality strands are associated with low socio-economic status, for example, learning disability or some minority ethnic groups. Both are associated with poor life and health outcomes. This leads to difficult issues of interpretation, as our discussion of cross-over themes in the section above shows. One lesson from that discussion is that we should be cautious in explaining inequality that crosses strands (e.g. class and ethnicity) in terms of one or the other even if the inequality disappears when statistical adjustment is made.

This chapter provides the data on life and health inequality in relation to social class. It should be read as the backdrop against which to understand inequality across the protected strands.

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