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## Sex and gender

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# Chapter 8: Sex and Gender

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## Key messages

### **What are the inequalities? How persistent and how worrying are they?**

Though men and women share many health risks, there are some marked differences between men and women in their patterns of morbidity and mortality. These differentials are influenced by a complex of factors relating to both the biological and social aspects of men's and women's lives, as well as the interactions between these realms. We use the term 'sex' to refer to the genetic and biological factors that shape men's and women's health. We use the term 'gender' to refer to the socio-cultural construction of male and female identities; that is the roles, responsibilities and entitlements that are typically assigned to men and women because of their sex, as well as the expected norms of behaviour, internalised sense of self and any other aspects of 'being a man' or 'being a woman' that may shape health and well-being. In practice, these influences closely interact to pattern health outcomes and experiences. In the sections that follow, for convenience, we use the term 'sex' when describing simple differences in quantitative indicators between groups of individuals categorised as either 'males' or 'females', 'men or 'women', while recognising that an understanding of the reasons for any observed differences requires an exploration of gender.

#### *Outcome*

##### *LIFE:*

- Male life expectancy is less than female life expectancy at all ages. Latest figures for the UK as a whole show that males born in 2006-8 can expect to live 77.4 years and females 81.6 years at current mortality rates. The comparable figures for England are males 77.7 and females 81.9 years, for Wales, males 76.9 and females 81.2 years and for Scotland, males 75.0 and females 79.9 years.
- Life expectancy at birth has been steadily rising for males and females over the past 25-30 years and though female advantage persists, the gap between males and females has declined over time.
- Life expectancy at older ages has also been rising for both men and women in recent years and the sex/gender gap has declined. However, women who

reach age 80 can still expect to live longer than their male counterparts in England, Wales and Scotland.

- Though life expectancy has been improving for both men and women across the whole life-span in Scotland over the past 20-30 years, people resident in Scotland continue to die earlier than in any other Western European country. The sex gap in life expectancy at birth is also larger in Scotland than in England or Wales.
- The leading cause of death - ischaemic (or coronary) heart disease - is the same for men and for women across all three countries, though age-patterns of onset differ and men's mortality rates are higher overall. Cerebrovascular disease (stroke) is the second biggest killer for men in England and for women in all three countries, and the third biggest killer for men in Wales and Scotland.
- There have been significant declines in death rates among men and women from cardiovascular diseases (CVDs) over time, but improvements seem to have been relatively greater for men so that the sex gap has declined over time. Very high death rates from cerebrovascular diseases among women at older ages are a particular cause for concern.
- High levels of cardiovascular disease mortality in comparison with England & Wales and other European countries are cause for concern for both men and women in Scotland.
- Cancer is a major cause of death for both sexes in England, Wales and Scotland, though overall cancer death rates are higher among men than women at most ages. Cancer death rates in Scotland are particularly high.
- For both men and women lung cancer is the leading cancer cause of death in all three countries. However, whereas male lung cancer death rates fell steadily between 1991 and 2008 in England & Wales, there was no such improvement among women. In Scotland, while the male lung cancer rate has been falling since 1980, it has been rising among women. The second leading cancer mortality is breast for women and prostate for men.
- For the majority of cancers, women have a small survival advantage over men (as measured by the percentage who are alive five years after diagnosis).
- There are stark and persistent differences in suicide rates between the sexes with men experiencing higher rates at all ages. For the UK as a whole, the

2008 suicide rate was around five per 100,000 population for women and 17 per 100,000 population for men. The high suicide rates among young men in Britain, particularly in Scotland, are a persistent concern, though recent evidence does suggest some decline.

- Though deaths from accidents have declined over time, men continue to suffer much higher accidental death rates than women at all adult ages except in the oldest age-group.
- Men are much more likely than women to die as the result of assault, particularly at younger ages.
- While the level of maternal mortality is not an issue of concern in the general population, maternal mortality among minority ethnic and migrant women is worryingly high. Recent data indicate that, compared to White women, women from minority ethnic groups are, on average, three times more likely to die from a cause directly or indirectly related to pregnancy. Black African women had a mortality rate seven times higher than White women. Asylum seekers and newly arrived refugees are identified as at particularly high risk.

#### *HEALTH:*

Sex differences in morbidity are complex and often difficult to interpret. General measures of poor health are affected by the fact that men and women may assess and report their health differently.

- In general, a higher proportion of women tend to report 'not good health' than men, though the sex differences are small and statistically insignificant. In the 2008 health surveys, the following proportions of adults aged 16+ reported their health to be other than 'good': England 24% of men and 25% of women; Wales 21% of men and 23% of women; and Scotland 25% of men and 25% of women.
- Among both men and women, a large proportion of the working age population of the three countries of Great Britain report having a limiting long-term illness or disability that limits daily activity but the figure does not differ greatly between men and women until older ages. Nevertheless, women's level of reported LLTI was statistically significantly higher than men's in 2008 in the Health Survey for England (HSE) in which 21% of men and 25% of

women aged 16+ reported having at least one limiting longterm illness or disability, in the Scottish Health Survey (SHeS) in which 23% of men and 28% of women reported LLTI and in the Welsh Health Survey (WHS 2008), in which 26% of men and 29% of women reported LLTI.

- Looking across the three countries of interest, in all cases females had higher Healthy Life Expectancy at birth than males, though the gaps between males and females are smaller than for life expectancy. This indicates that a portion of the additional years lived by women are spent in 'poor health'.
- The General Health Questionnaire (GHQ12) is used to measure mental wellbeing and to identify common mental disorders. Women are more likely to have a high GHQ12 score than men, indicating a higher proportion with poor mental wellbeing. In the HSE 2008, 11% of all men had GHQ12 score of 4+ compared to 15% of women, and in Scotland these figures were 12% of men and 17% of women. In Wales an alternative measure of mental ill-health also suggested female disadvantage.
- Studies in the general population suggest that the overall prevalence of mental illness does not vary significantly between women and men. For specific disorders, however, clear sex differences are found. Anxiety, depression and eating disorders are more common in women, substance misuse and anti-social personality disorders are more common in men.
- For men, there are particular concerns around the under-diagnosis and therefore lack of treatment for mental health problems which are believed to account, at least in part, for the much higher risk to men of: becoming homeless, being imprisoned, becoming drug dependent and being involved in violence.
- For women, there are particular concerns around the high levels of domestic and sexual violence and its links to poor mental and physical health.

## *Process*

- Men tend to access GP services less often than women. They also appear to ignore symptoms of ill-health and delay healthcare seeking more often than women. Men may be more likely than women to self-medicate in harmful ways, e.g. through use of alcohol and drugs when experiencing mental distress.
- There is evidence across a range of health services that patterns of access, uptake and treatment diverge between women and men. The patterns are, however, complex, so that both men and women appear to be disadvantaged in some arenas of healthcare.
- Women are more likely than men to receive treatment for minor mental health conditions. However, more than twice as many male as female psychiatric inpatients are detained and treated compulsorily.
- Indicators of perception of treatment with dignity and respect within healthcare do not appear to vary by sex. However, there is evidence that maternity services frequently fail to provide satisfactory services to women, and particularly to women from minority ethnic backgrounds.
- Indicators of healthy life-style show complex patterns across sex and age, with neither men nor women being uniformly disadvantaged.
- Among adults, men continue to be more likely to smoke than women, though differences are far smaller than in the past. However, among teenagers and the youngest adults, females are as likely as, or more likely than, males to smoke in England, Scotland and in Wales.
- There has been a downward trend in the proportion of men and women who report themselves to be current smokers, though this has been steeper in men than in women. In the 2008 General Lifestyle Survey of Great Britain, 88% of men and 89% of women said that they did not currently smoke - a statistically insignificant difference between the sexes.
- The proportion of people who are of normal/healthy weight (neither overweight nor obese, and not underweight) has declined over the last 10-15 years across Britain, and is consistently lower among men than women. In 2008, 37% of Welsh men and 44% of Welsh women were of normal/healthy weight. In England these figures were 32% of men and 41% of women, and in

Scotland just 30% of men and 36% of women were of 'normal/healthy' weight (all statistically significant differences between the sexes).

- Over time since the mid 1990s, the proportion of both men and women who are of 'normal/healthy' weight has declined steadily, though the gap between the sexes has remained roughly stable. This decline is explained by the rising proportion of men and women who are obese (BMI 30+).
- Physical activity levels tend to be lower in women than in men across the three countries at all ages. However, levels of physical activity fall well below current guidelines for the majority of both men and women at almost all ages. Recent data for England suggest that physical activity is particularly worryingly low in teenage girls compared to their male counterparts.
- Indicators of healthy eating tend to be better among women than men. The SHeS 2008 found that overall 20% of men over 16 years and 24% of women reported eating five or more portions of fruit or vegetables a day and in the HSE 2008, 25% of men and 29% of women reported eating 5 or more portions a day (both statistically significant differences between men and women). In the WHS 2008, the figures were higher, at 35% of men and 37% of women, and the sex difference of borderline significance.
- Patterns of alcohol consumption vary greatly by age, but males tend both to consume more alcohol, and to drink alcohol more frequently, than females. In England, the HSE 2008 found that overall 59% of men aged 16 years and over and 68% of women reported that they did *not* drink above government guidelines on any day in the week prior to interview. In the WHS 2008, these figures were 48% of men and 62% of women, and in the SHeS 2008, 56% of men and 64% of women (all statistically significant differences). While recent trends over time suggest a rise in 'sensible' drinking for both men and women, the increase has been smaller for women than men. Quantitative indicators of problematic alcohol use suggest an increase over the past 10 years in Scotland, particularly among women and younger people.

### *Autonomy*

- Gendered identities and expectations of male and female behaviour place significant constraints on both men and women realising their full potential for good health and longevity.

- Women may experience particular constraints on their autonomy within intimate and family relationships that expose them to health risks and may prevent them from accessing health-promoting resources. There is some evidence that these aspects of limited autonomy may be particularly pronounced for women from some minority ethnic backgrounds, including Gypsies and Travellers and asylum seekers, and for women living in extreme financial hardship.

## **Vulnerable sub-groups across outcome, process and autonomy**

Sub-groups which are particularly vulnerable include:

- Minority ethnic women, particularly those who are asylum seekers and refugees or new migrants who can not speak English and have limited social support.
- The detained population (which is predominantly male). In prison, mental health is a risk factor for suicide.
- The homeless, who are again predominantly male and about whose health very little is known in terms of health.

## **Are there any emerging trends?**

There are several emerging issues and concerns. Some of these reflect changes in societal attitudes and expectations, so that longstanding illness issues are now receiving heightened attention and new data are throwing light on important inequalities. In other cases, there appear to be real changes in morbidity and mortality patterns that deserve attention, as well as new issues emerging because of changing demographics - particularly the ageing population and increasing ethno-cultural diversity and new migration. There is:

- Increased attention to poor male mental health and its links to suicide (as well as men's health more generally).

- Renewed concern regarding women's vulnerability to abuse within intimate relationships, particularly for teenagers and young women, and its health consequences.
- Persistent concern with worrying patterns of alcohol use and smoking among female teenagers and young women (though positive indications in recent years that these are on the decline).
- Increased attention to dementia which disproportionately affects women (see Chapter on Age)
- Concerns regarding the unmet maternal health needs of migrant and minority women, particularly asylum seekers (see Chapter 7 on Ethnicity).

## **What are the causes?**

- The socio-cultural constructions of masculinities and femininities undermine both men's and women's health in important ways. For men, male roles and expectations tend to: encourage risk taking; discourage disclosure of ill-health and health seeking behaviour; and result in weaker social support. For women, female roles and expectations tend to mean: weaker access to resources; heavy workloads combining caring and income-generating responsibilities; lower status and respect.
- Women's poorer access to material resources undermines their mental and physical health.
- Patchy attention to gendered influences on health within health policy and strategic documents means that many areas of service provision continue to operate in a 'gender blind' fashion and fail to adapt to the differential needs of men and women. A more mainstreamed approach has been advocated to ensure that gender sensitivity becomes part-and-parcel of health policy, commissioning and service delivery.
- The social constructions of gender influence provider-patient interactions and result in differential diagnosis, treatment and care in many areas of healthcare. In relation to the major killers, these processes tend to disadvantage women



since CVD and lung cancer are still commonly perceived to be 'male' diseases. Men, however, appear to lose out in other areas.

- Exclusion from the evidence base further exacerbates the above processes since women are less likely to 'fit' the standard diagnostic and therapeutic guidelines that have been developed on the basis of research that is disproportionately focused on men.

## **Data quality and quantity**

All of the key indicators of LIFE and HEALTH can be disaggregated, and are meaningful, by sex, allowing a comprehensive picture of sex inequalities across a range of measures in this domain.

Despite the routine inclusion of sex in health-related data sources, information is not always presented in published sources for men and women separately, particularly at regional and local levels.

Where information is presented by sex, age-standardization is not always routinely employed to enable comparisons, for instance over time.

Our understanding of the ways in which gender - the sociocultural construction of masculinities and femininities - impacts upon health risks and responses is limited. As such, we are not able to describe the process and autonomy aspects of this capability in sufficient detail confidently to inform policy and practice.

In particular, there is evidence of important and complex sex/gender differences in access to healthcare services at primary and secondary level. It may be useful to supplement the EMF with regular monitoring of some key indicators of appropriate health service access and uptake

Gender inter-relates importantly with other equality strands. Gender inequalities in LIFE and HEALTH indicators can usually be examined by age and socioeconomic

class. However, since information is less complete across ethnicity, religion/belief, disability and sexual orientation, the ways in which gender inequalities in health are patterned by these other dimensions can only be partially described.

An understanding of the extent to which the LIFE and HEALTH capabilities are adequately achieved for men and women requires not just comparisons between the sexes but also comparisons (i) within sub-groups of each sex, (ii) comparisons within and between the sexes across the countries and regions of Great Britain, and (iii) within each sex across other comparable countries.

### **How might change be better measured?**

- A wide range of data is collected and can be disaggregated by sex. However, greater consistency in presentation of data in routinely published tables would aid comparisons across countries within the UK as well as over time. Consistent methods for age-standardization should be used and these should be explicitly reported.
- There is now a need to measure improvements in process and autonomy, as well as outcomes. More information on the gender sensitivity of policies and services, and their impact on outcomes, would be helpful.
- Improvements in the reporting of local and regional level data by sex would help to flag up areas of good/poor outcomes as well as ensure that the commissioning and delivery of services was based on a detailed understanding of local gendered needs.
- The EMF might usefully be supplemented by some measures of access and uptake of key healthcare services/interventions.
- Monitoring against other EU countries is also useful and should be regularly done for England, Wales and Scotland.

## **Evidence: Data quality and quantity**

The mortality and morbidity patterns of men and women are influenced by a complex of factors relating to both the biological and social aspects of men's and women's lives, as well as the interactions between these realms. We use the term 'sex' to refer to the genetic and biological factors that shape men's and women's health. We use the term 'gender' to refer to the socio-cultural construction of male and female identities; that is the roles, responsibilities and entitlements that are typically assigned to men and women because of their sex, as well as the expected norms of behaviour, internalised sense of self and any other aspects of 'being a man' or 'being a woman' that may shape health and well-being. In the sections that follow, for convenience, we use the term 'sex' when describing simple differences in quantitative indicators between groups of individuals categorised as either 'males' or 'females', 'men or 'women', while recognising that an understanding of the reasons for any observed differences requires an exploration of gender.

Sex is routinely recorded on death registration data, national-level population-based health and social surveys, the Census, national patient surveys and Hospital Episode Statistics. As such, all of the key LIFE and HEALTH indicators identified in the Equality Measurement Framework (EMF) can be produced separately for men and women across the three countries enabling comprehensive comparisons between the sexes.

Indeed, it is accepted practice that national-level statistics on mortality and morbidity are routinely presented for men and women separately and all of the EMF selected key indicators are meaningful when considered across sex.

However, it is disappointing to note that the sex-disaggregation of health-related data is still not a routine practice at regional and local levels and that comparisons between men and women are not always undertaken to ascertain where disparities exist and what their causes might be. For instance, a survey of English primary care trusts (PCTs) carried out by the Men's Health Forum in 2006 suggested that fewer than a third of PCTs always used gender-disaggregated data when planning services in relation to heart disease and cancer, and less than a fifth when planning diabetes services (Wilkins 2006).

Furthermore, there is a surprising lack of evidence and detailed understanding of how gendered norms, expectations and processes influence health experiences and outcomes, despite clear indications that the behaviours of patients and providers, as well as wider health policy and health systems, are importantly shaped by socio-cultural constructions of gender.

A number of recent reports have usefully highlighted the importance of further mainstreaming attention to gender in UK health policy and practice as well as flagging up key areas of concern in relation to the health and wellbeing of men and women in UK society (Men's Health Forum, 2008; Wilkins 2010)

It is important to note, however, that drawing comparisons *between* the sexes will not always be informative in terms of assessing whether or not the capabilities of men and women to achieve their potential within the realms of LIFE and HEALTH are adequately protected and supported. This is the case because (i) some health issues affect (or mainly affect) only one sex; and (ii) it is possible that where no, or only a very small, inequality exists between the sexes, that the overall level of ill-health or health-related issue is nevertheless unacceptably high in *both* sexes. For these reasons, it is important that comparisons *within* the sexes are also undertaken (particularly between socioeconomic and ethnic groups) and that comparisons are drawn between regions, the different countries of the UK and with other similar countries elsewhere. Such comparisons help to illuminate health-related issues where men and/or women could be achieving better outcomes and may be suggestive of process or autonomy issues that need attention in the British context. We draw below on information presented in the Health Profile of England (Department of Health 2009) and the report - Scottish Mortality in European Context (ScotPHO 2007b) - to provide such comparisons where possible.

Gender intersects importantly with the other equalities strands in the arenas of LIFE and HEALTH. By-and-large, it is possible to explore sex inequalities in LIFE and HEALTH across the age spectrum and by socioeconomic class. However, available evidence does not always provide a detailed picture of the health profiles of men and women across ethnicity, belief/religion, disability and sexuality. Some relevant data in other chapters and key patterns are flagged up below.



## LIFE: main indicators

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

#### *Life expectancy at birth: current picture*

The latest figures issued by the Office for National Statistics (ONS) show that life expectancy at birth is higher than it has ever been before for both males and females, though women continue to live longer. A baby boy born in the UK today could expect to live to 77.4 years and a girl to 81.6 years if the mortality rates remain at 2006-8 levels. There are, however, disparities in life expectancy at birth for both men and women between England, Scotland and Wales. As shown in the Table 1 below, life expectancy at birth is lowest for males and females in Scotland and the gap between males and females is also greatest here, at 4.9 years. Nevertheless, females born in Scotland can expect to live longer than males born in England.

Table 1: Life expectancy at birth, UK, England, Wales and Scotland, 2006-8

	<i>Years</i>		
	Males	Females	Difference (males-females)
UK	77.4	81.6	- 4.2
England	77.7	81.9	- 4.2
Wales	76.9	81.2	- 4.3
Scotland	75.0	79.9	- 4.9

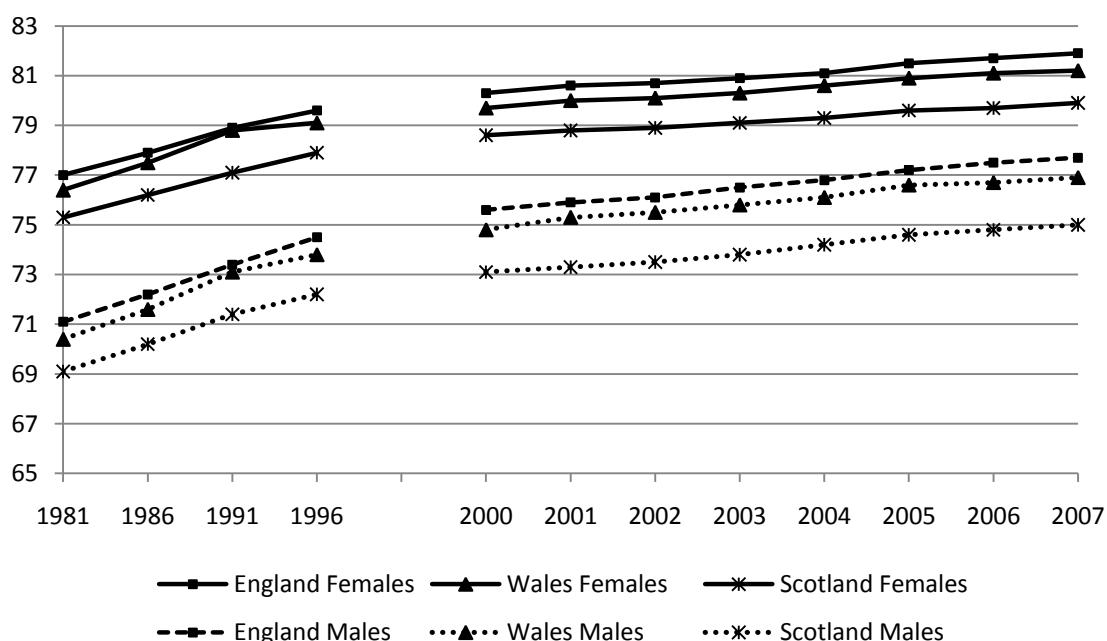
Source: Figures produced from interim life tables prepared by GAD and supplied by ONS at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459>

#### *Life expectancy at birth: trends over time*

In the UK, large improvements in expectancy of life at birth have been seen over the past century for both males and females. In 1901 males could expect to live to around just 45 years of age and females to around 49 years. Early gains were largely the result of reductions in infant and child mortality, with improvements in adult life expectancy only occurring towards the end of the 20th century. Recent

years, however, have witnessed large increases in adult life expectancy, particularly for older adults. As shown in Figure 1, life expectancy has been steadily rising for both males and females over the past 25-30 years. Though the female advantage in life expectancy persists, the gap between men and women has declined over this period. The difference in life expectancy at birth between men and women was 6.0 years in 1980-2 and had closed to 4.2 years by 2004-6. Life expectancy is expected to continue to rise for both sexes but with the gap between the sexes continuing to decline. ONS has produced projected life expectancies for people born in 2008 of 88.6 years for men and 92.2 years for women.

Figure 1: Period expectation of life at birth (years) England, Wales and Scotland, 1980-2 to 2006-8, by sex



Source: Graphs drawn from figures produced by GAD/ONS and supplied by ONS at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459>

Note: All figures are based on a three-year period, so that for instance 2003 represents 2002-2004. The population estimates used to calculate these life expectancies are the latest available at time of publication of the 2006-8 interim life tables (21 October 2009). All figures are based on death registrations.

### Life expectancy at age 20: current picture

The number of further years someone reaching age 20 in 2006–08 could expect to live – life expectancy at age 20 - is also higher for women than for men. Based on 2006–08 mortality rates for the UK as a whole, a man aged 20 can expect to live a further 58.1 years and a woman another 62.2 years. The sex gap is again largest in Scotland at 4.7 years and least in England at 4.0 years [Table 2].

Table 2: Life expectancy at age 20, UK, England, Wales and Scotland , 2006-8

	<i>Years</i>		
	Males	Females	Difference (males-females)
UK	58.1	62.2	- 4.1
England	58.4	62.4	- 4.0
Wales	57.5	61.8	- 4.3
Scotland	55.7	60.4	- 4.7

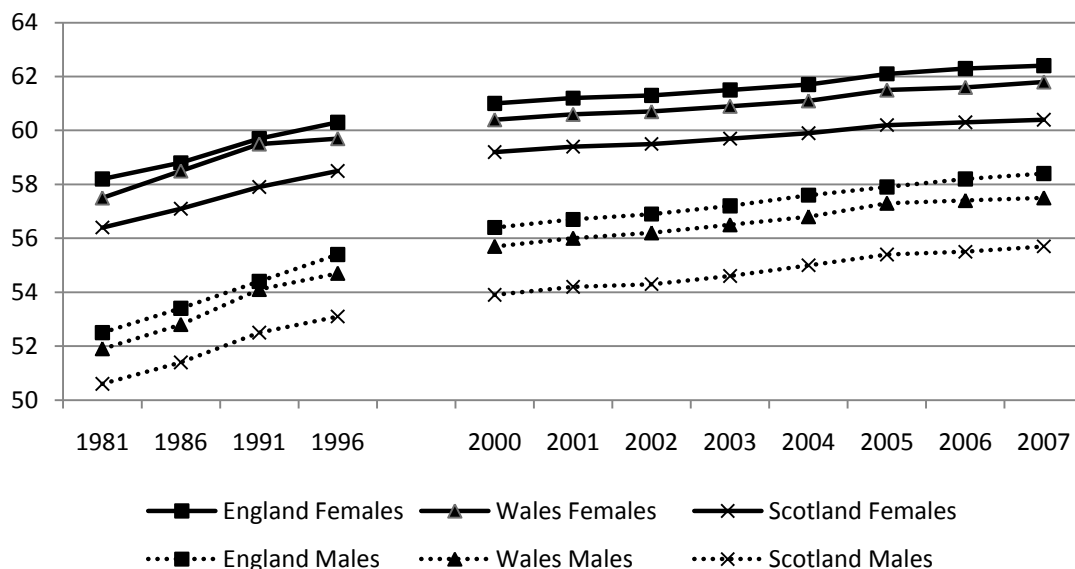
Source: Figures produced from interim life tables prepared by GAD and supplied by ONS at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459>



### Life expectancy at age 20: trends over time

Figure 2 shows the rising life expectancy at age 20 for both men and women across all three countries and the persistent female advantage over time.

Figure 2: Period expectation of life at age 20 England, Wales and Scotland, 1980-2 to 2006-8, by sex



Source: Graphs drawn from figures produced by GAD/ONS and supplied by ONS at

<http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459>

Note: All figures are based on a three-year period, so that for instance 2003 represents 2002-2004. The population estimates used to calculate these life expectancies are the latest available at time of publication of the 2006-8 interim life tables (21 October 2009). All figures are based on death registrations.

### Life expectancy at age 65 and age 80: current picture

The number of further years someone reaching age 65 in 2006–08 could expect to live – life expectancy at age 65 - is also higher for women than for men. Based on 2006–08 mortality rates for the UK as a whole, a man aged 65 could expect to live a further 17.4 years, and a woman aged 65 another 20.0 years. As with life expectancy at other ages, life expectancy at age 65 is also higher for England than for the other countries of the UK, and the female advantage can be seen across all three countries (Table 3).

Table 3: Life expectancy at age 65, UK, England, Wales and Scotland, 2006-8

	Years		
	Males	Females	Difference (males-females)
UK	17.4	20.0	- 2.6
England	17.5	20.2	- 2.7
Wales	17.1	19.8	- 2.7
Scotland	16.2	18.8	- 2.6

Source: Figures produced from interim life tables prepared by GAD and supplied by ONS at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459>

Among individuals in the UK aged 80 in 2006-8, men could expect to live a further 7.8 years and women a further 9.2 years. Though women continue to have an advantage, the gap is, unsurprisingly, smaller. As shown in Table 4, the differential between males and females persists across all countries, as does the disadvantaged position of men and women in Scotland as compared to England and to Wales.

Table 4: Life expectancy at age 80, UK, England, Wales and Scotland, 2006-8

	Years		
	Males	Females	Difference (males-females)
UK	7.8	9.2	- 1.4
England	7.9	9.2	- 1.3
Wales	7.7	9.1	- 1.4
Scotland	7.3	8.6	- 1.3

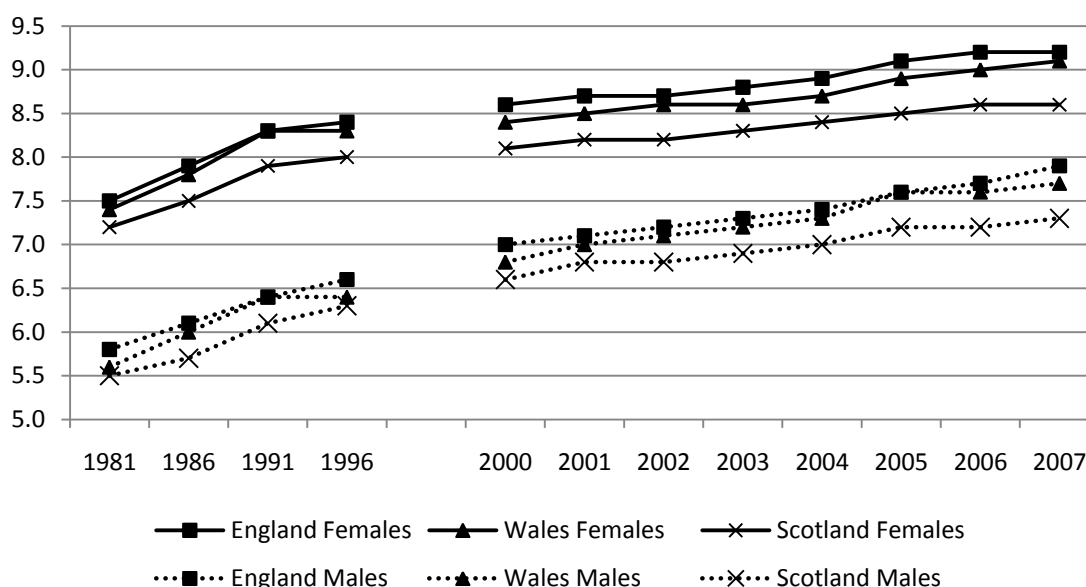
Source: Figures produced from interim life tables prepared by GAD and supplied by ONS at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459>

#### *Life expectancy at age 65 and age 80: trends over time*

In recent decades the increase in life expectancy among older adults in the UK has been dramatic and the gap between men and women has declined. For example, life expectancy for men aged 65 increased by over four years between 1981 and 2007. The trend towards greater life expectancy in recent years also extends to the oldest

adults. As shown above, among individuals aged 80 in 2006-8, men could expect to live a further 7.8 years and women a further 9.2 years; this represents a remarkable increase since 1980-2 when the comparable figures were 5.8 and 7.5 years respectively (see Figure 3).

Figure 3: Period expectation of life at age 80 UK, England, Wales and Scotland, 1980-2 to 2006-8, by sex



Source: Graphs drawn from figures produced by GAD/ONS and supplied by ONS at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459>

Note: All figures are based on a three-year period, so that for instance 2003 represents 2002-2004. The population estimates used to calculate these life expectancies are the latest available at time of publication of the 2006-8 interim life tables (21 October 2009). All figures are based on death registrations.

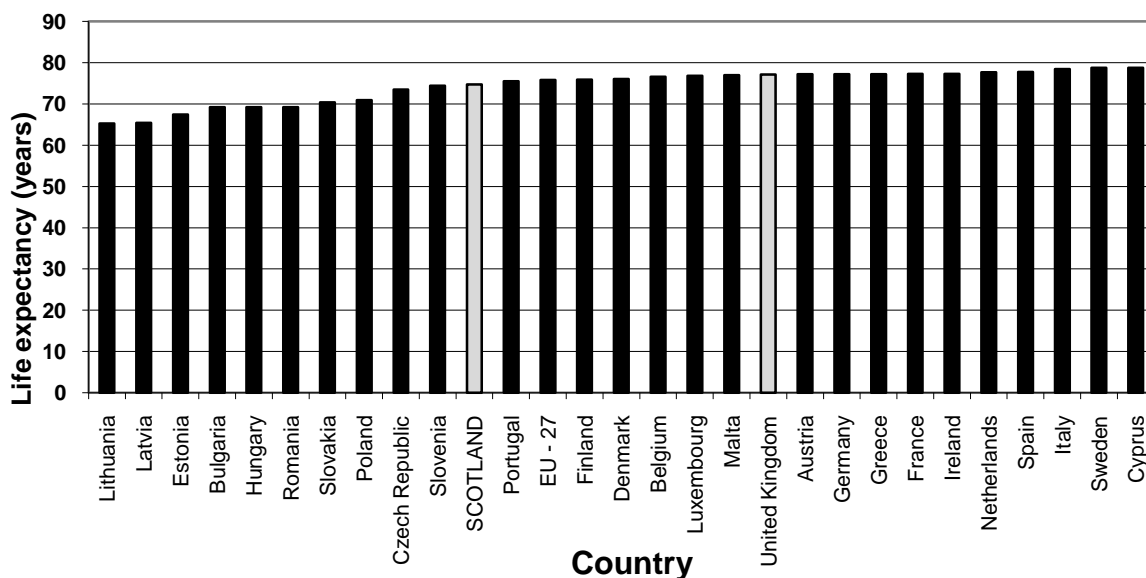
### Scottish life expectancy

Though life expectancy has been improving for both men and women across the whole life-span in Scotland over the past 20-30 years, people resident in Scotland die earlier than in any other Western European country. Moreover, the improvement in mortality has been greater in many other European countries than in Scotland meaning that Scotland's relative position in European league tables declined during the 20th century for both men and women, particularly among the working age population (ScotPHO, 2007b). Figure 4, taken from the Scottish Registrar General's annual review of demographic trends, illustrate Scotland's position in terms of life expectancy at birth in comparison with other European countries in 2006 for both men and women. Both the upper panel (males) and the lower panel (females)

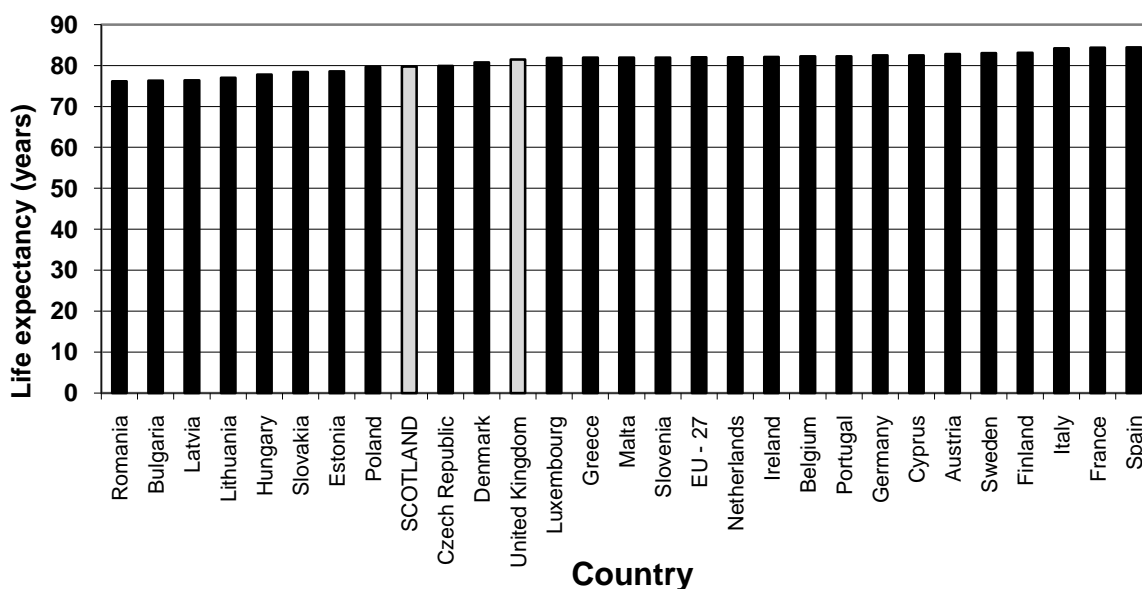
illustrate Scotland's disadvantaged position relative to other European countries, but the position of Scottish women is particularly poor.

Figure 4: Life expectancy at birth, 2006, selected countries

Males



Females



Source: Scotland's Population 2008 - The Registrar General's Annual Review of Demographic Trends - Chapter 3 Deaths <http://www.gro-scotland.gov.uk/statistics/publications-and-data/annual-report-publications/annual-review-2008/figures-chapter-3.html>

## Infant mortality

### *Infant mortality rate: current picture*

Table 5 presents the infant mortality rates (IMRs) for the UK as a whole and for England, Wales and Scotland separately for the period 2006-8 for males and females. In contrast to the patterns in life expectancy, Scotland and Wales have lower levels of infant mortality than England among both males and females. Across all three countries, the IMR is higher among males than females (a pattern seen worldwide), though the difference between the sexes was greatest in Wales, at 1.5 deaths per 1,000 live births.

Table 5: Infant mortality rates by sex, UK, England, Wales and Scotland, 2006-8

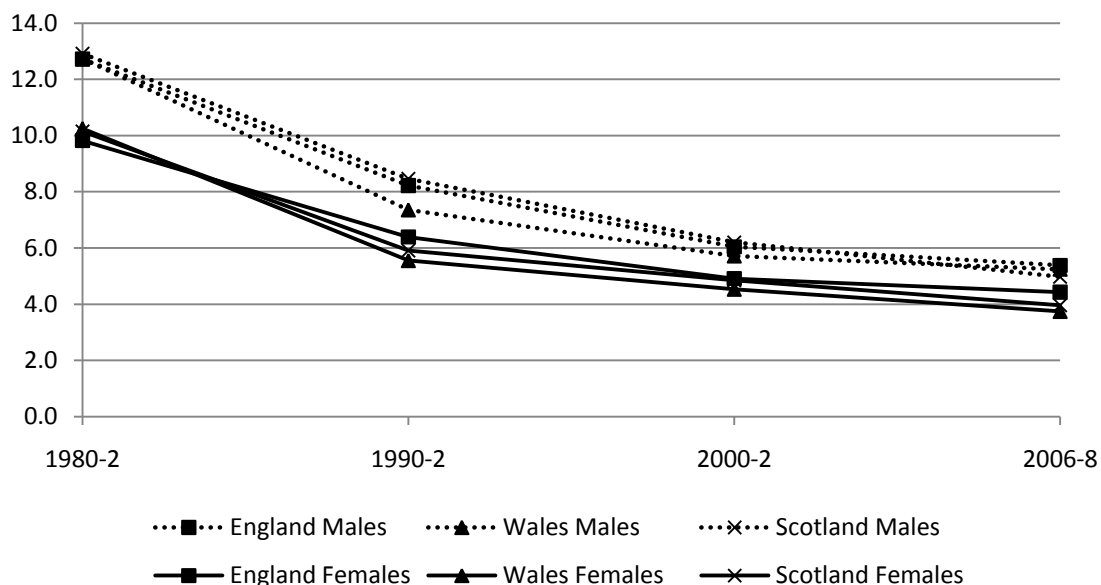
	Males	Females	<i>Deaths in first year of life per 1,000 live births</i>
			Difference (males-females)
UK	5.34	4.37	0.97
England	5.38	4.43	0.95
Wales	5.24	3.74	1.50
Scotland	4.97	3.96	1.01

Source: Figures produced from interim life tables prepared and supplied by ONS at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14459>

### *Infant mortality rate: trends over time*

Infant mortality has declined steadily in England, Wales and Scotland over several decades among both males and females, with the absolute gap between the sexes declining over time (Figure 5).

Figure 5: Infant mortality rates UK, England, Wales and Scotland, 1980-2 to 2006-8, by sex



*European comparisons:*

Despite these overall improvements, and the reduction in the sex inequality over time, infant mortality remains much higher in all countries of the UK than in many other European countries. There also remain stark differences in infant mortality between geographical areas and by socioeconomic class and ethnic group. As such, infant mortality remains a national target indicator for health inequalities and a dedicated National Support Team currently provides support to those areas identified as having an excess of infant deaths.

## **Age-specific mortality rates**

The indicators presented above suggest that the 'capability to be alive' has been improving over time in all three countries of Great Britain for both men and women and that the excess mortality risks experienced by men in comparison to women have declined over time. These trends are illustrated further for England & Wales in Table 6 which presents the age-standardised overall all cause mortality rates for males and females over time, as well as the age-specific mortality rates. At all ages the mortality rates are higher for males than for females, but the improvement over time has also been greater for males than for females at all ages except the 35 to 49 year period.

Table 6: Death rates by sex and age, 1998, 2007 and 2008, England & Wales

Age group	1998		2007		2008		Percentage change 1998-2008	
	Males	Females	Males	Females	Males	Females	Males	Females
<b>Age-standardised mortality rate<sup>2</sup>, all ages, all causes, per million population</b>	<b>8,967</b>	<b>5,928</b>	<b>6,949</b>	<b>4,921</b>	<b>6,854</b>	<b>4,898</b>	-23.6	-17.4
<b>Age-specific mortality rates per 1,000 population</b>								
Under 1 <sup>3</sup>	6.3	5.0	5.3	4.3	5.3	4.2	-16.2	-16.0
1-4	0.3	0.2	0.3	0.2	0.2	0.2	-31.5	-10.5
5-9	0.1	0.1	0.1	0.1	0.1	0.1	-19.4	-15.9
10-14	0.2	0.1	0.1	0.1	0.1	0.1	-37.0	-30.7
15-19	0.6	0.3	0.4	0.2	0.4	0.2	-28.5	-26.2
20-24	0.9	0.3	0.6	0.3	0.7	0.3	-28.7	-18.2
25-29	1.0	0.4	0.8	0.3	0.8	0.3	-22.9	-12.7
30-34	1.1	0.5	1.0	0.5	1.0	0.5	-9.8	0.0
35-39	1.3	0.8	1.3	0.7	1.3	0.7	1.7	-8.3
40-44	2.0	1.3	1.8	1.1	1.8	1.1	-7.2	-10.2
45-49	3.1	2.0	2.6	1.8	2.7	1.8	-11.3	-13.0
50-54	4.9	3.2	4.3	2.8	4.3	2.9	-12.6	-10.9
55-59	8.5	5.2	6.9	4.4	6.7	4.3	-21.6	-16.9
60-64	14.2	8.4	10.7	6.8	10.4	6.7	-26.5	-20.3
65-69	24.3	14.4	17.8	11.0	17.2	10.8	-29.3	-25.4
70-74	41.7	25.4	28.0	18.4	27.8	18.1	-33.5	-28.7
75-79	65.9	40.9	48.7	32.8	47.5	32.1	-27.9	-21.5
80-84	109.1	72.7	84.0	60.1	82.1	59.4	-24.7	-18.3
85 and over	192.7	158.4	161.0	143.6	161.4	145.5	-16.3	-8.1

1 Table source: ONS, published at <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14409>

2 These rates are standardised to the European Standard Population, expressed per million population; they allow comparisons between populations with different age structures, including between males and females and over time.

3 Deaths per 1,000 live births.



## Cause-specific mortality

Though causes of mortality do differ between the sexes, it is important to note that the leading cause of death - coronary heart disease (CHD, also commonly referred to as Ischaemic Heart Disease, IHD) - is the same for both men and women in England, Wales and Scotland. Among women in all three countries and men in England, cerebrovascular disease (stroke) is the second leading cause of death, while this is the third biggest killer of men in Wales and in Scotland also, behind lung cancer (Table 7).

Table 7: Leading causes of death<sup>1</sup> among men and women, numbers of deaths registered in 2008

	England		Wales		Scotland	
	rank		rank		rank	
<b>Men</b>						
Ischaemic heart diseases (I20-25)	1	40,327	1	2,930	1	4,852
Cerebrovascular disease (I60-69)	2	16,678	3	1,095	3	2,051
Cancer (trachea, bronchus, lung) (C33-34)	3	16,019	2	1,170	2	2,114
Chronic lower respiratory disease (J40-47)	4	12,510	4	827	4	1,400
Influenza and pneumonia (J10-18)	5	10,814	5	741	6	942
Cancer (prostate) (C61)	6	8,597	6	553	8	792
Cancer (colon, sigmoid, rectum, anus) (C18-21)	7	7,178	7	499	7	839
Cancer (lymphoid, haematopoietic and related tissue) (C81-96)	8	6,644	8	425	10	539
Dementia and Alzheimer's disease (F01,03,G30)	9	6,627	9	420	(5)	(1,335) <sup>2</sup>
Cirrhosis and other diseases of the liver (K70-K76)	10	4,384	10	325	9	692
<b>Women</b>						
Ischaemic heart diseases (I20-25)	1	31,196	1	2,258	1	3,989
Cerebrovascular disease (I60-69)	2	26,704	2	1,893	2	3,316
Influenza and pneumonia (J10-18)	3	16,334	3	1,076	6	1,521
Dementia and Alzheimer's disease (F01,03,G30)	4	15,187	4	959	(4)	(2,027) <sup>2</sup>
Heart failure, other heart diseases (I26-52)	5	13,554	5	956	8	828
Cancer of trachea, bronchus, lung (C33-34)	6	12,203	6	862	3	1,966
Chronic lower respiratory disease (J40-47)	7	11,686	7	836	5	1,637
Cancer (breast) (C50)	8	10,065	8	627	7	1,043
Diseases of the genitourinary system (N00-N99)	9	6,625	9	437	9	768
Cancer (colon, sigmoid, rectum, anus) (C18-21)	10	6,138	10	418	10	746

Source: Adapted from ONS Vital Statistics Tables 2008; Registrar General's Annual Review of Population trends, 2008 GRO Scotland.

Notes:

- Clearly there are different ways of grouping the ICD codes into 'causes' of death and some of the above represent broader groupings than others. The groupings used here largely follow those employed by ONS see <http://www.statistics.gov.uk/pdfdir/dthreg0809.pdf>. Figures for England & Wales are based on deaths classified by 'original cause of death' since these are available disaggregated for England & Wales separately. As such, the figures differ slightly from those published in the ONS Mortality Statistics: Deaths registered in 2008 since those are based on 'underlying cause of death'.
- These figures for Scotland include deaths from all mental and behavioural disorders (F00-F99) not just dementias although these make up the bulk of this category. Alzheimer's disease deaths are not included for Scotland in this category.

The EMF focuses on monitoring mortality from cardiovascular disease (both ischaemic heart disease and cerebrovascular disease) and cancers. However, while these are the leading causes of death, other causes are also important and show some significant sex differentials. In England and in Wales, the third leading cause of death among females is influenza and pneumonia (J10-J18) accounting for around 17,000 deaths compared to around 11,500 such deaths among males. The fourth leading cause of death among females is dementia and Alzheimer's disease (F01, F03 & G30) accounting for over 16,000 deaths compared to less than 7,000 such deaths among males, reflecting the older age profile of women compared to men. Meanwhile, cirrhosis and other diseases of the liver caused 4,384 male deaths in England, 325 male deaths in Wales and 692 male deaths in Scotland in 2008 compared to 2,563, 220 and 367 female deaths in each country respectively.

### **Cardiovascular disease mortality (diseases of the circulatory system)**

The EMF identifies the cardiovascular disease (CVD) mortality rate as one of the core indicators within the Life domain. However, cardiovascular disease encompasses a range of diseases of the circulatory system, among which the major killers are ischaemic heart diseases (IHD) and cerebrovascular diseases (including stroke). It is important to distinguish between these types of cardiovascular disease because they affect men and women differently and have some different risk factors.

#### *CVD mortality: Current picture*

The sex patterns of cardiovascular disease mortality are complex. In 2008, in England & Wales, the total *number* of deaths due to all diseases of the circulatory system was slightly higher among women than men, at 87,392 compared to 80,846. However, the overall age-standardized death rate was higher for men at 221 per 100,000 population compared to 142 per 100,000 population for women. In England & Wales, the overall age-standardized death rate for IHD is far higher for men than for women, while the figures for cerebrovascular disease are similar for men and women (Table 8). The pattern is somewhat different in Scotland. Here, both men and women have very high mortality from IHD, though men are still disadvantaged

compared to women. However, the overall death rate from cerebrovascular disease is higher among women in Scotland than among men (based on crude rates not standardized for age).

Table 8: All ages death rates per 100,000 population, 2008

	England & Wales (age - standardised)	Scotland (crude)
<b>All cardiovascular diseases (I00-I99)</b>		
Men	221	340
Women	142	350
<b>Ischaemic heart diseases (I20-I25)</b>		
Men	121	194
Women	56	149
<b>Cerebrovascular diseases (I60-I69)</b>		
Men	47	82
Women	44	124

Source: ONS Mortality Statistics 2008; Registrar General's Annual Review of Population trends, 2008 GRO Scotland.

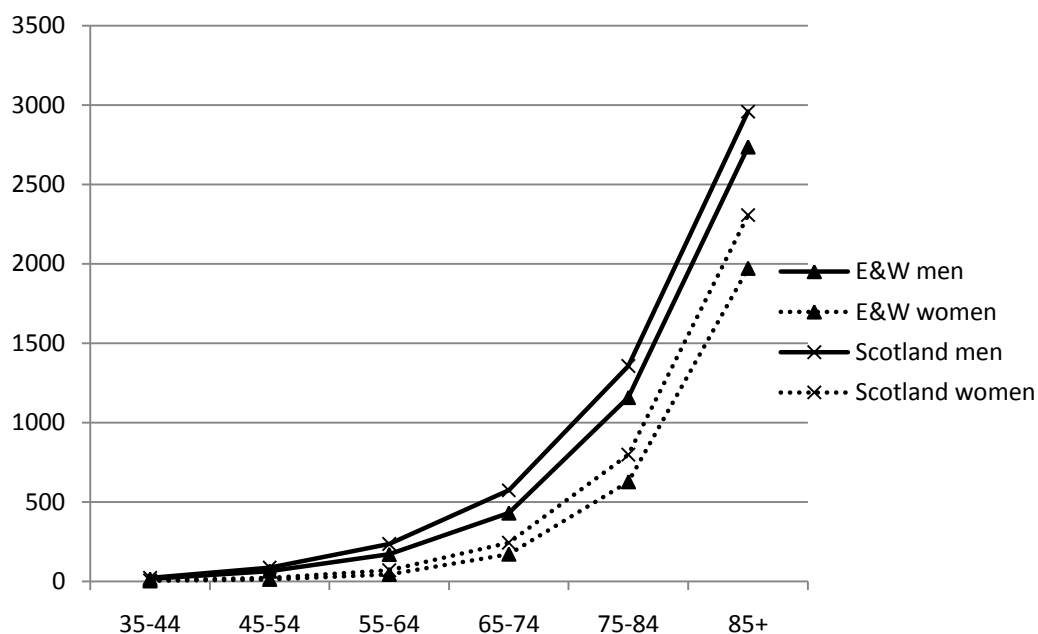
Notes: England & Wales figures are age-standardized against the European Standard Population. Figures above for Scotland are crude rates and no age-standardized rates are currently provided by GRO(S). Cause-specific death rates are not produced routinely by ONS for England and Wales separately.

#### *Age-specific death rates from cardiovascular diseases:*

Figure 6 and Figure 7 illustrate the differing age-sex patterns of IHD and cerebrovascular disease with data for England and Wales combined and for Scotland. Men have higher death rates at all ages compared to women for IHD, though women's risks of heart disease increase during the menopausal transition and following the menopause (Fodor and Tzerovska 2004). Women's risks continue to increase in later life and the gap between women and men narrows. The part played by modifiable risk factors also varies for women and men. One study has suggested that up to half the difference in IHD mortality between women and men can be explained by modifiable factors, particularly high-density lipoprotein (HDL) cholesterol levels and smoking, which has been more common among men historically (Purcell, Daly and Petersen 2004). However, there is emerging evidence that the impact of those factors might also vary between women and men (Doyal, Payne and Cameron 2003). In contrast to the age-sex pattern for IHD, men's death

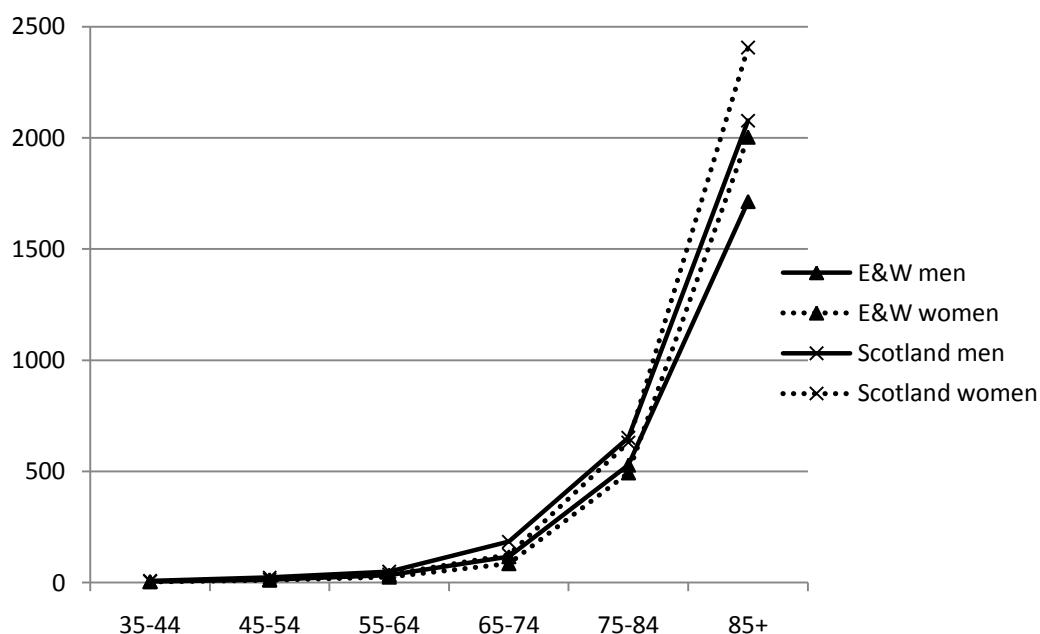
rates from cerebrovascular disease are closer to those of women across much of the age-span and are lower than women's at the oldest ages.

Figure 6: Death rates per 100,000 population from ischaemic heart disease by sex and age-group, England & Wales and Scotland, 2008



Source: Adapted from ONS Mortality statistics: deaths registered in 2008 and Scottish Registrar General's Annual Review of Population, Table 6.2.

Figure 7: Death rates per 100,000 population from cerebrovascular disease and age-group, England & Wales and Scotland, 2008



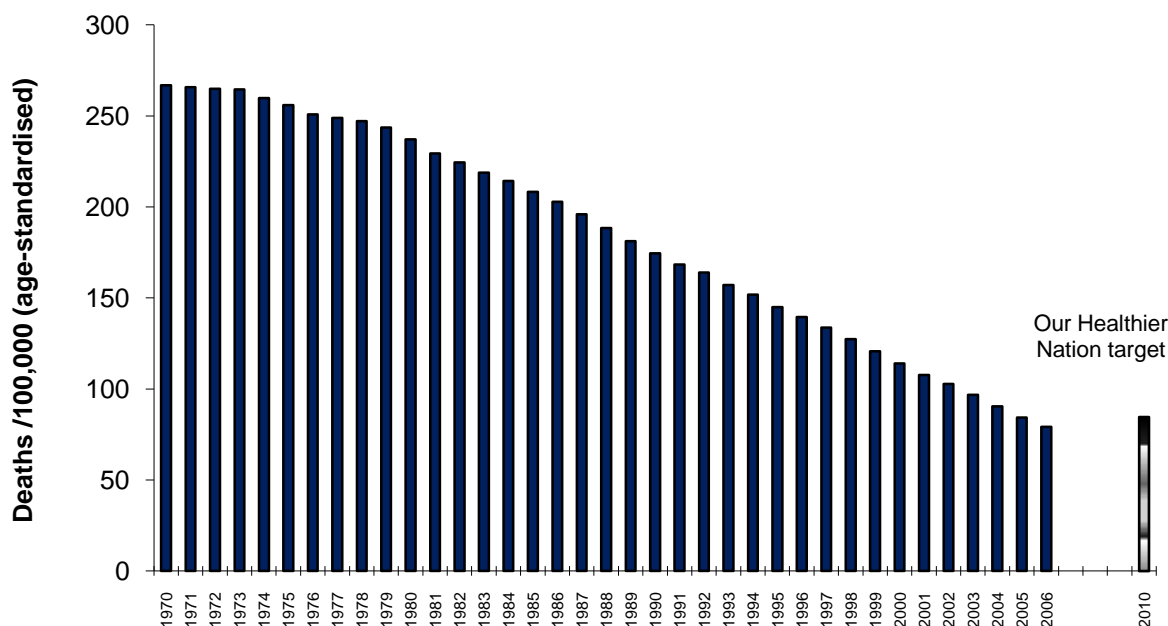
Source: Adapted from ONS Mortality statistics: deaths registered in 2008 and Scottish Registrar General's Annual Review of Population, Table 6.2.

Having described the sex differentials in cardiovascular disease mortality, it is important to highlight the inequalities in risk of death from these diseases that exist between the countries of Great Britain. Age-adjusted mortality rates in 2006 were highest in Scotland, followed by Wales and then England for both IHD and cerebrovascular disease for both men and women.

*Cardiovascular disease mortality: trends over time*

Overall, the cardiovascular mortality rate has fallen since 1970 in England, Wales and Scotland. Figure 8 illustrates this downward trend for England and shows that the target set for 2010 in the government policy document, *Our Healthier Nation*, was met by 2005.

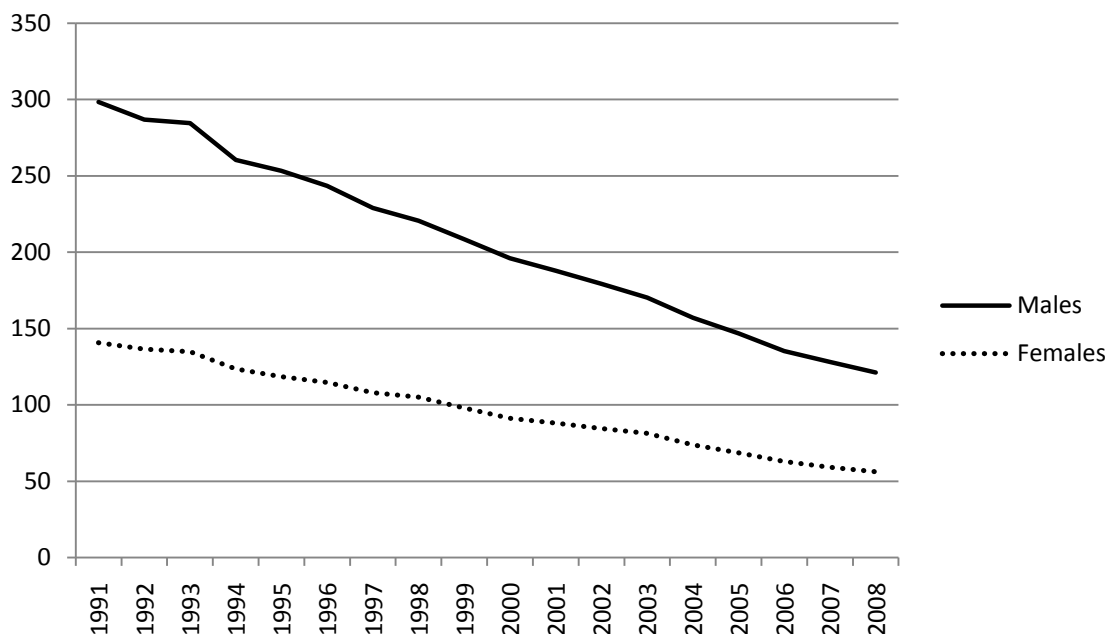
Figure 8: Death rates under age 75 from all cardiovascular disease men and women combined, 1969-2007, England



Notes: Three year moving averages plotted against middle year. ICD-9 codes adjusted to be comparable with ICD-10 codes. Source: ONS, analysis by Health Improvement Analytical Team - Monitoring Unit, DH, reported at [www.heartstats.org](http://www.heartstats.org)

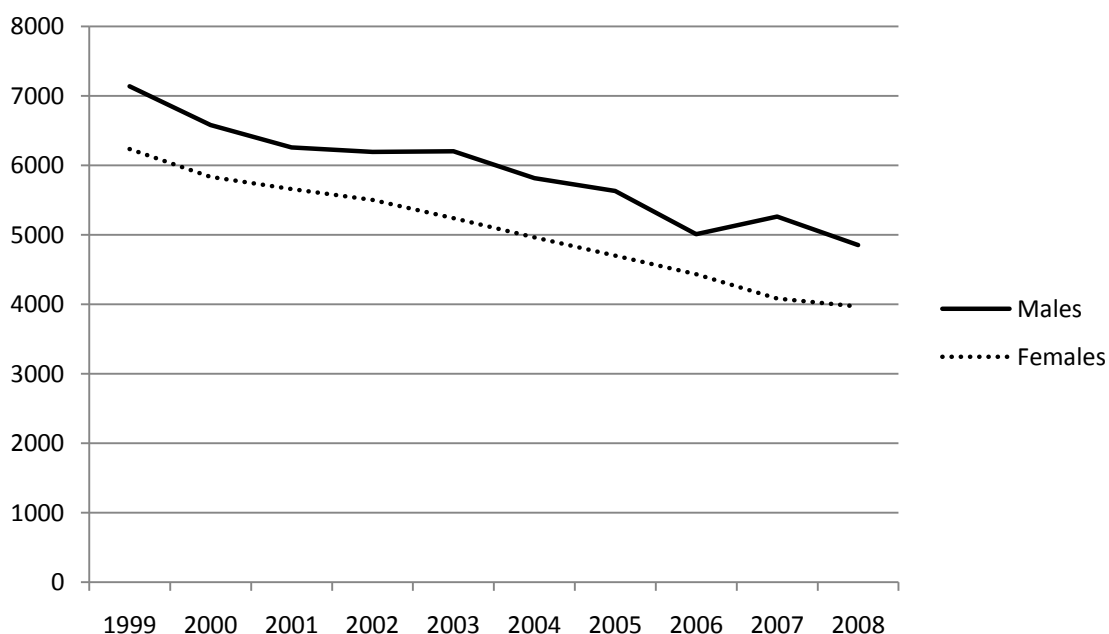
Looking at trends over time in age-standardized deaths rates in England & Wales from IHD and cerebrovascular disease separately for men and women we find evidence of improvement over time for both sexes. For IHD, there has been a greater improvement over time for men than for women and a significant narrowing of the absolute gap over time (Figure 9). For cerebrovascular disease too the sex gap seems to have declined over time (Figure 11), though not as noticeably as for IHD. Age-standardized rates were not available for Scotland so we have plotted absolute numbers of deaths (Figure 10 and Figure 12). These two figures again illustrate improvement over time for both sexes and suggest a narrowing of the sex differential in the number of cerebrovascular disease deaths, though *numbers* of deaths to women persistently outnumber those to men from this cause.

Figure 9: Age-standardized overall death rate (deaths per 100,000 population) from ischaemic heart disease by sex 1991-2008, England & Wales



Source: ONS Mortality Statistics 2008.

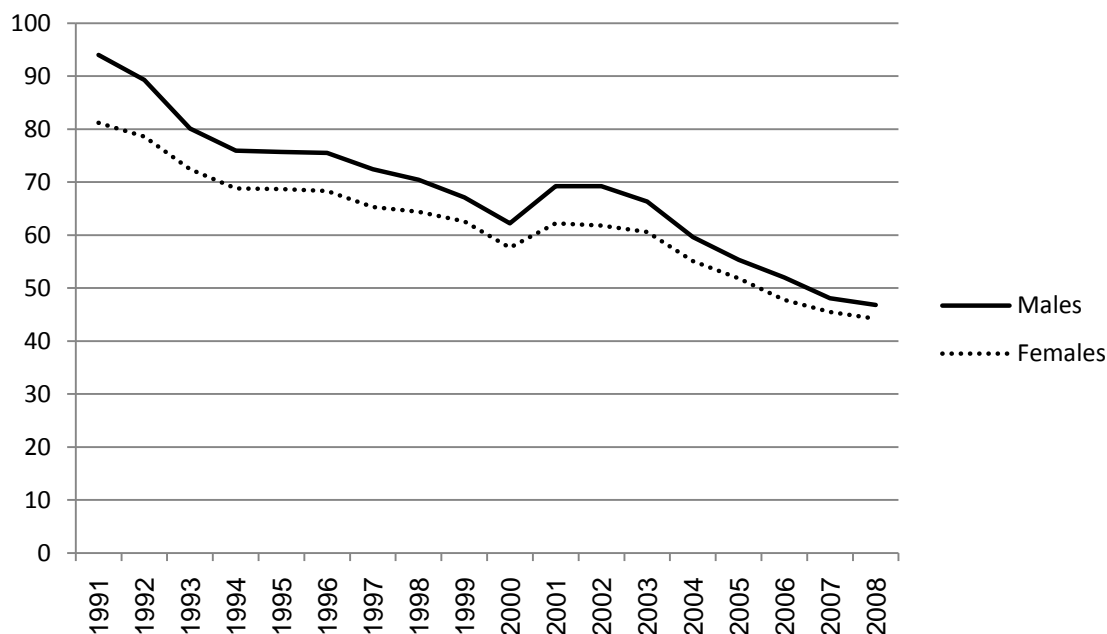
Figure 10: Numbers of deaths caused by ischaemic heart disease by sex 1999-2008, Scotland



Source: Scottish Registrar General's Annual Review of Population

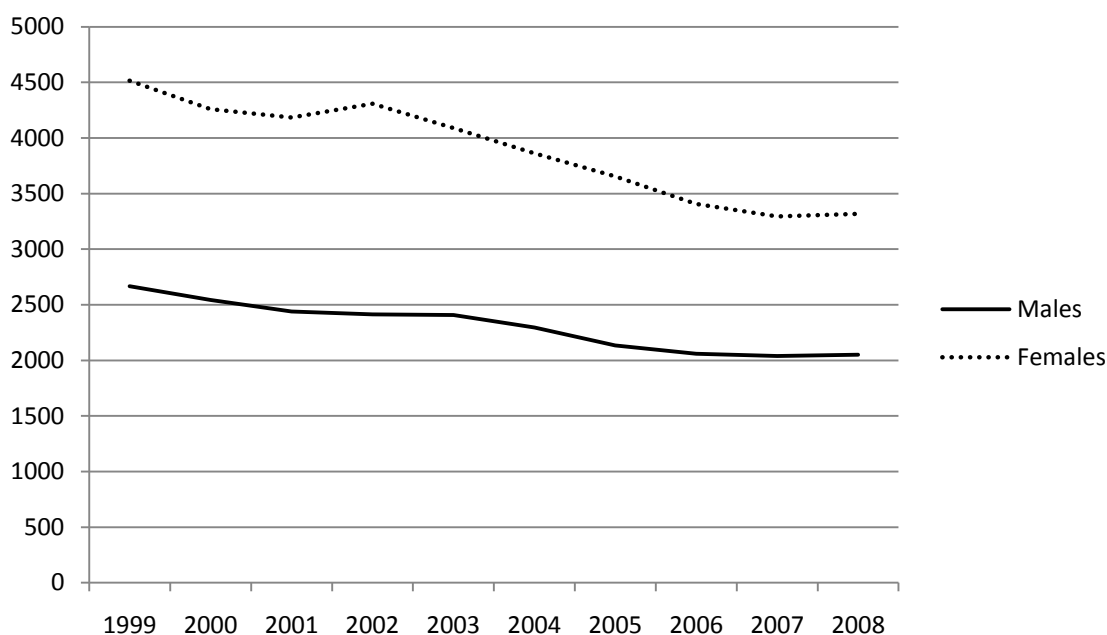
Note: Death rates for Scotland were not available for all years but are presented for selected years below.

Figure 11: Age-standardized overall death rate (deaths per 100,000 population) from cerebrovascular disease by sex 1991-2008, England & Wales



Source: ONS Mortality Statistics 2008.

Figure 12: Numbers of deaths caused by cerebrovascular disease by sex 1999-2008, Scotland



Source: Scottish Registrar General's Annual Review of Population

Note: Death rates for Scotland were not available for all years but are presented for selected years below.



Table 9 illustrates that, though the sex gap has declined over time for both IHD and cerebrovascular disease mortality in Scotland, the decline has been steeper for IHD.

Table 9: Crude death rates (deaths per 100,000 population) from Ischaemic heart disease and Cerebrovascular disease, by sex, Scotland, 1980-2008

	Ischaemic heart disease			Cerebrovascular disease		
	Males	Females	Difference Males- Females	Males	Females	Difference Males- Females
1980-82	408	304	104	139	210	-71
1990-92	367	297	70	119	191	-72
2000-02	261	216	45	101	162	-61
2008	194	149	45	82	124	-42

Source: Scottish Registrar General's Annual Review of Population 2008.

Note: Figures for 1980-2, 1990-2 and 2000-2 are averaged over the three-year period and are crude rates.

However, despite evidence of declines, there are concerns that the rate of improvement in IHD deaths has slowed in recent years and that unfavourable trends in cardiovascular risk factors, including obesity and associated diabetes, are beginning to impact on mortality (Scottish Government 2009a). Gains that have been achieved through improved medical intervention are unlikely to be sustained without significant shifts in life-style risk factors. The fall in mortality from cerebrovascular disease has been more consistent and premature deaths from this cause have fallen in line with national targets. However, the growing proportion of older people means that the *number* of people suffering a cerebrovascular disease continues to be high, particularly among women.

#### *European comparisons:*

The Health Profile for England (2008) presents data on premature mortality (aged under 65 years) from all circulatory diseases (CVD) for England in comparison with other EU countries using data from 2005 or its nearest equivalent. The rate for women in England was 23 deaths under 65 years per 100,000 population, a figure placing the country 14th out of all EU nations and well behind the EU-15 average. In comparison, the country with the lowest premature mortality from CVD among women was France - just 13 deaths per 100,000 people. English men had a much higher premature death rate - 61 deaths per 100,000, placing them 8th and with a

rate higher than the EU-15 average of 56. France had the lowest male rate at 41 deaths per 100,000. The report on Scottish Mortality in European context (ScotPHO, 2007b) draws some useful comparisons for IHD. The report notes that despite some convergence with rates for other Western European countries, Scottish mortality rates for IHD in women have consistently been the highest since the 1950s and among men, Scotland has had the highest IHD mortality in Western Europe since the 1980s. The mortality rates from cerebrovascular disease among Scottish men and women are converging with those of other Western European countries, though they still remain high for both sexes.

## Cancer mortality

### *Mortality from cancers: current picture*

Men continue to experience excess cancer-related deaths when compared to women. In England & Wales in 2008, the overall cancer mortality rate was 206 per 100,000 for men and 150 per 100,000 for women. Cancer rates are far higher in Scotland for both men and women. In 2008, men in Scotland had an overall cancer mortality rate of 309 per 100,000 and women had a slightly lower rate of 283 per 100,000. The male age-specific death rates exceed those for females in all age-groups in all countries, except in the age period 25-54 in England & Wales and in 25-44 in Scotland (figures in bold in Table 10). The sex differentials are particularly large at older ages.

Table 10: Age-specific death rates from all cancers by sex, 2008 (deaths per 100,000 population) England & Wales and Scotland

	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
England & Wales								
males	4	8	25	97	351	906	1,877	3,039
females	3	<b>11</b>	<b>37</b>	<b>111</b>	296	625	1,169	1,732
Scotland								
males	5	6	30	120	424	1,111	2,068	3,409
females	4	<b>8</b>	<b>39</b>	116	329	768	1,410	2,002

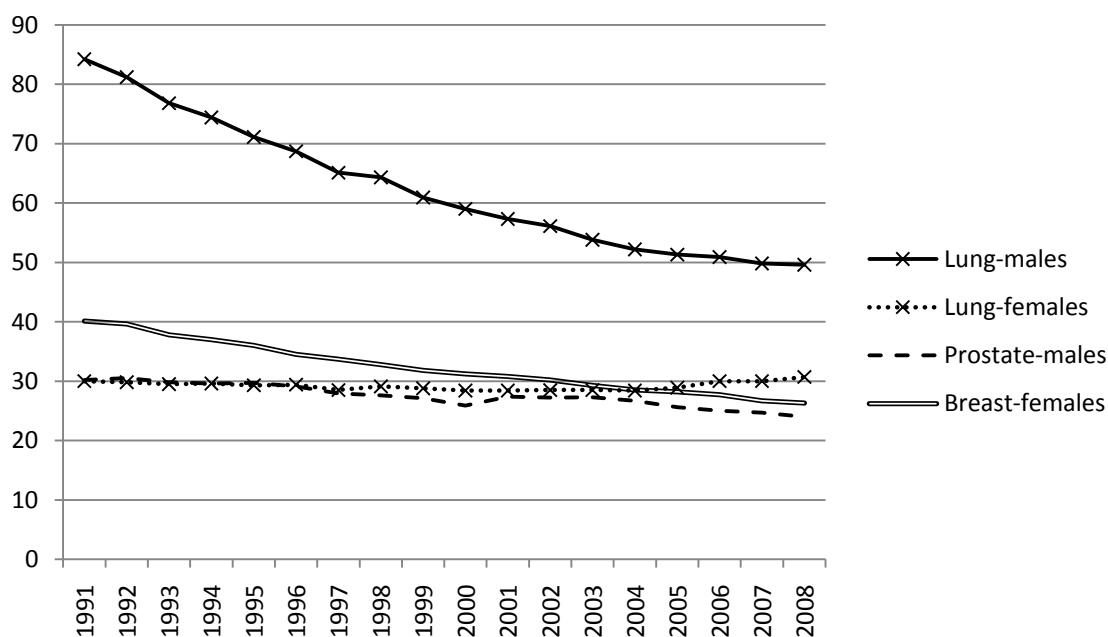
Source: Adapted from ONS Mortality Statistics Deaths registered in 2008 and Scottish Registrar General's Annual Review of Population, 2008.

Men and women are at risk of some of the same cancers - notably lung cancer and bowel cancer (colon, sigmoid, rectum, anus) - while also experiencing heightened sex-specific risks - prostate cancer and breast cancer. In 2008, Scottish men had a death rate of 85 per 100,000 population from lung cancer and 32 per 100,000 from prostate cancer, while Scottish women had a death rate of 74 per 100,000 from lung cancer and 39 per 100,000 from breast cancer. In England & Wales, the 2008 figures were 49 per 100,000 men for lung cancer and 24 per 100,000 men for prostate, and 31 per 100,000 women for lung and 24 per 100,000 women or breast cancer.

*Cancer mortality: trends over time*

Figure 13 presents age-standardized death rates from main cancers for England & Wales. A steady fall in the lung cancer death rate among men can be seen, with some flattening out in recent years. In contrast, lung cancer rates for women, though far lower than for men, have actually increased over the period, reflecting historical changes in women's smoking patterns. The rising female rates of lung cancer death have been even more striking in Scotland in recent decades. The Registrar General's Annual Report of Population 2008 presents a female lung cancer crude death rate of 74 per 100,000 for 2008 compared with 41 per 100,000 in 1980-2 and 57 per 100,000 in 1990-2 (General Register Office for Scotland 2009). However, other analyses suggest that there may be a slight decline in recent years (ScotPHO, 2007).

Figure 13: Age-standardized cancer death rates (deaths per 100,000 population) by sex, 1991-2008, England & Wales



Source: ONS mortality statistics 2008

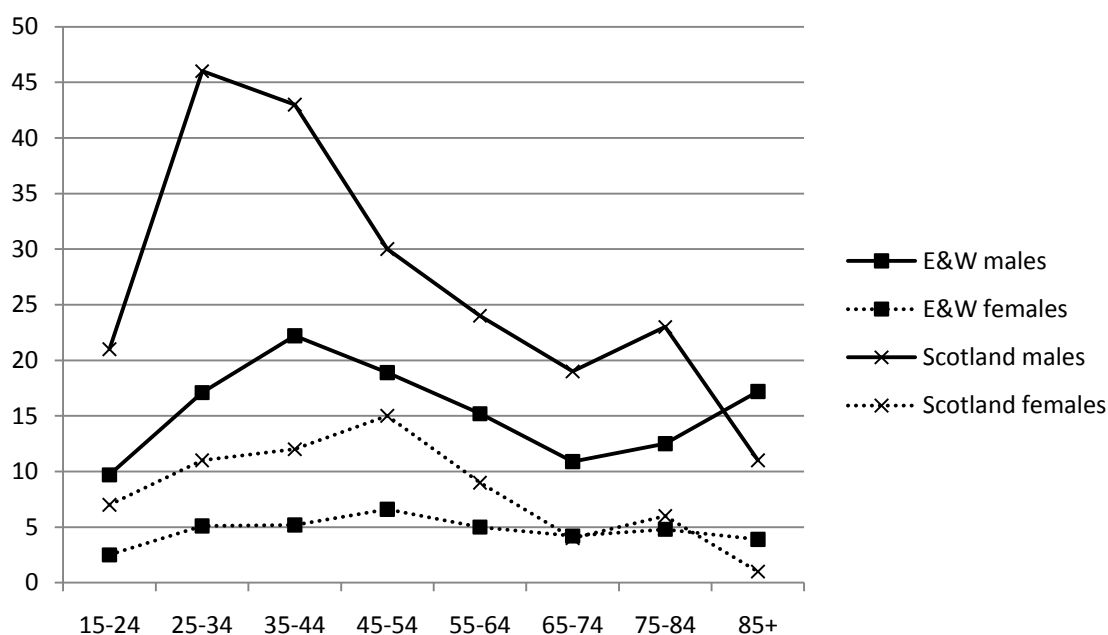
## **Suicide**

### *Mortality rates from suicide: current picture*

Stark differences between men and women in deaths from suicide exist in Great Britain. In 2008, in England, 3,273 male deaths were classified as due to 'intentional self-harm' or 'event of undermined intent' (X60-X84 and Y10-Y34) compared to 1,028 female deaths. In Wales, the 2008 figures were 197 male deaths and 72 female deaths, and in Scotland, they were 630 male deaths and 213 female deaths (ONS Vital Statistics tables).

Age-sex patterns of suicide are presented for 2008 for England & Wales and Scotland in Figure 14 below. In both sets of data, the female suicide rate peaks in the 45-54 years age-group, though the variation across the age-groups is far less marked than for males. For males in Scotland the highest rate was recorded for the 24-34 and 35-44 years age-groups and for males in England & Wales for the 35-44 years age-group. Therefore, though numbers of deaths are far lower than for the other causes discussed above, suicides result in a large loss of potential years of life. Furthermore, a majority of suicide deaths occur at times of crisis and are seen therefore to be potentially preventable given the right kinds of support to people in distress (Wilkins, 2010).

Figure 14: Age-specific suicide rates (deaths per 100,000 population) by sex 2008 England & Wales and Scotland



Source: ONS Mortality Statistics Deaths registered in 2008 and Scottish Registrar General's Annual Review of Population, 2008.

The role of alcohol misuse in Scotland's high male suicide rate has been highlighted in the 2008 Chief Medical Officer's report (CMO 2008) which cited the confidential enquiry into Suicides and Homicides which estimated that more than 60% of males who committed suicide had consumed excess quantities of alcohol at the time of their suicide (though clearly there may be complex causal pathways involved). It is also worth noting that there are gendered patterns in the use of different methods of suicide with men being more likely to die from hanging and suffocation and women more likely to use self-poisoning and these may account in part for different rates since females are more likely to have attempted suicide but not died as a result (Wilkins, 2010; Doyal et al., 2003)

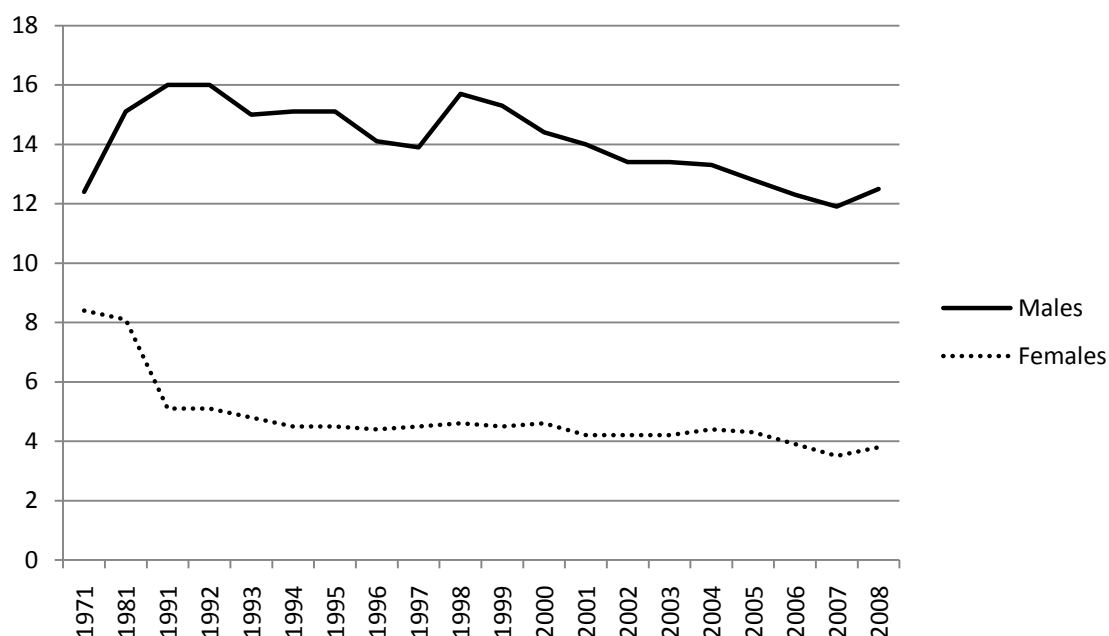
Mortality from suicide: trends over time:

Overall, the trend in suicide death rates in the UK since 1991 has been downwards. However, the patterns have diverged between England & Wales and Scotland.

Figure 15 below shows the trend over time in the age-standardized suicide rates for males and for females in England & Wales. The rate appears to have declined

steadily among females, and, though the pattern is less clear, a downward trend is also seen for males.

Figure 15: Age-standardized overall suicide rates by sex, England & Wales, 1971-2008.

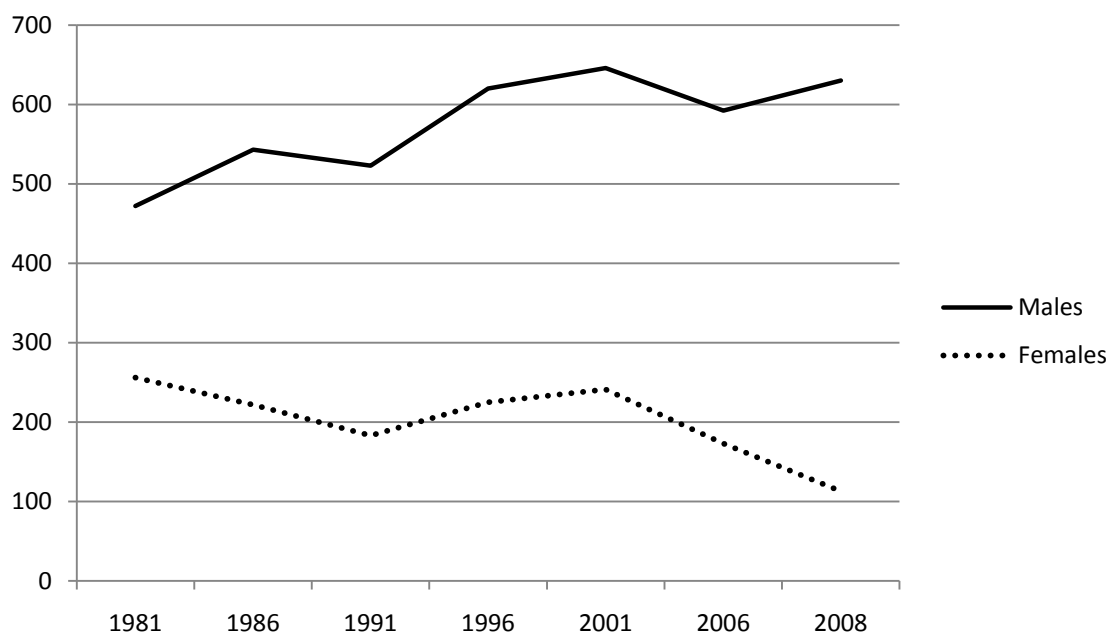


Source: ONS: Mortality statistics: Deaths registered in 2008.

Notes: Includes deaths classified by underlying cause as due to intentional self-harm and event of undetermined intent (ICD codes X60-X84 and Y10-Y34)

In Scotland the patterns over time have been somewhat different. Prior to the 1970s suicide rates in Scotland were low in comparison with England & Wales. However, in the 1980s and 1990s male suicide rates rose when they were on the decline in England & Wales, and female rates declined at a slower rate than among women in England & Wales. At the time of writing we did not have access to age-standardized suicide rates for Scotland to plot alongside those of England & Wales. However, we present the absolute numbers of suicide deaths by sex for Scotland in Figure 16. Analyses by Stark et al. (Stark et al. 2004) covered the period 1981 to 1999 and found a 35% increase in suicide and undetermined death among Scottish men between 1981-5 and 1996-9, with the largest increases among the youngest age-groups. Among Scottish women, Stark et al. (2004) recorded a decline over the period overall, but an increase in the younger age-groups. The rising suicide rate among Scottish men, particularly young Scottish men, has been a significant cause for concern in recent years (ScotPHO, 2007b).

Figure 16: Absolute numbers of suicide deaths by sex Scotland, 1981-2008



Source: Scottish Registrar General's Annual Review of Population, 2008.

However, recent analyses by Stark et al. (Stark, Stockton and Henderson 2008) suggest that the rate of young male suicide has declined in Scotland. They estimated a 40% reduction in rates among 15-29 year old men from 43/100,000 in 2000 to 25/100,000 in 2004; a statistically significant reduction. They also noted that this reduction had been accompanied by a reduction in hanging as a method of suicide.

Despite this recent more positive evidence, levels of suicide among young men remain worryingly high and continue to be a concern.

*European comparisons:*

Suicide rates vary considerably across Europe, though men consistently have higher rates than women. The three countries of Great Britain do not stand out as having particularly high rates compared to other countries (though comparisons may be compromised by differences in cause of death registration practices). The Health Profile of England 2008 ranks England 7th for male suicide, below the EU-15 average and 10th for female suicide, again below the EU-15 average. It is worth



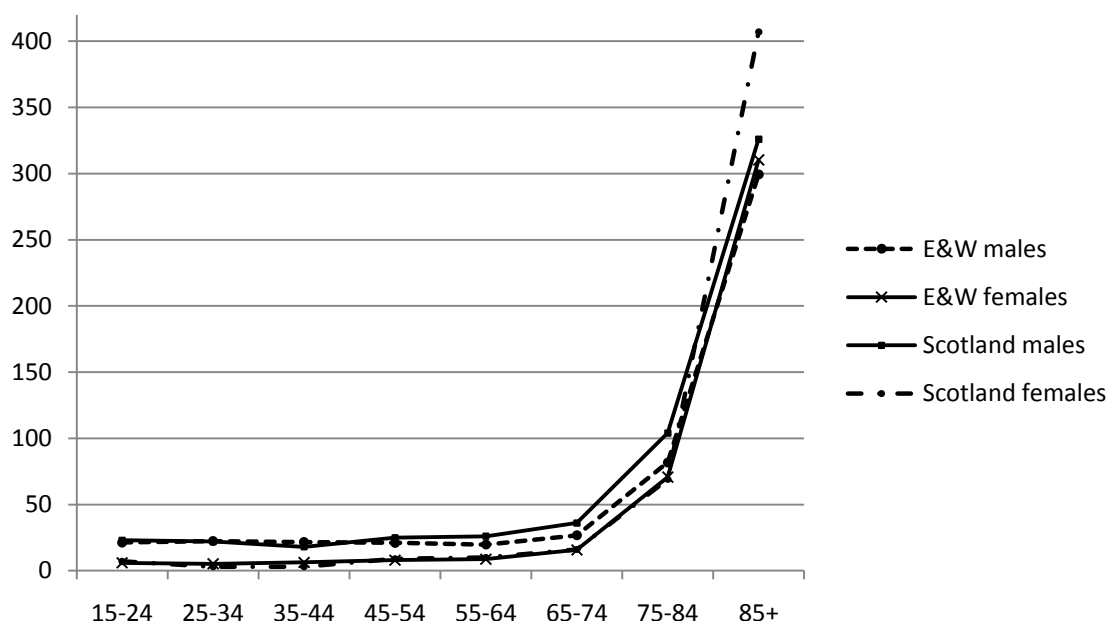
noting, however, that the rates in Cyprus are reported to be just 1.2 and 0.3 deaths per 100,000 for men and women respectively.

The detained population (which is predominantly male) is particularly vulnerable to suicide. In prison, mental health has been shown to be a risk factor for suicide. The recently established Ministerial Council on Deaths in Custody which comprises a ministerial board and independent advisory panel, is intended to bring about a continuing and sustained reduction in the number and rate of deaths in all forms of state custody in England and Wales (Independent Advisory Panel on Deaths in Custody 2009).

### **Accidental mortality, assault and injury**

In common with suicide, death rates from accidents, assault and injury vary considerably between the sexes. Figure 17 illustrates that at all ages except the very oldest age-group, 85+ years, males experience higher mortality rates from accidents than females. The rising accidental death rate for both men and women after age 65 years is striking in England & Wales and in Scotland. Deaths from assault are also higher among males than females at all ages up to 64 years in England & Wales and in Scotland. Above age 65 there are few such deaths and rates become unstable. The excess male mortality risk from assault was evidenced in 2008 by 521 such deaths among men in England compared to 220 among women, with the figures in Wales being 34 and 16 for men and women respectively, and in Scotland, 57 for men and 31 for women. Though deaths from violence are far less common among women than men, they are more likely to experience violence and abuse within intimate relationships and within the home which is believed to contribute to their heavier burden of mental ill-health (Doyal 2001).

Figure 17: Age-specific accident death rates (deaths per 100,000 population) by sex 2008 England & Wales and Scotland



Source: ONS Mortality statistics: deaths registered in 2008; Registrar General's Annual Review of Population 2008, GRO(S).

## Other causes of death of concern

As illustrated in Table 7 above, in addition to the 'big three killers' - IHD, cerebrovascular disease and cancers - a number of other diseases are a cause for concern because of the high and rising mortality rates experienced, and because of the sex patterns observed. Liver disease is of particular concern and rising rates of mortality from this cause have been seen among both men and women over the past 30 years. Liver disease is particularly prevalent among men, and notably among Scottish men (though Scottish women have also experienced rising mortality rates in recent years). Liver disease mortality rates are very high in comparison with other Western European countries for both men and women in Scotland. In 2008, 692 Scottish men and 367 women died of chronic liver disease.

High quality family planning and obstetric services play a crucial role in enabling women to realise their potential for life and health. While in the UK, maternal mortality is not a major public health issue, there is worrying evidence that particular sub-groups of women - notably minority ethnic women who are newly arrived in the UK and asylum seekers - are at increased risk of maternal mortality and morbidity, and that poor quality healthcare is a major contributing factor.

## HEALTH: outcome indicators

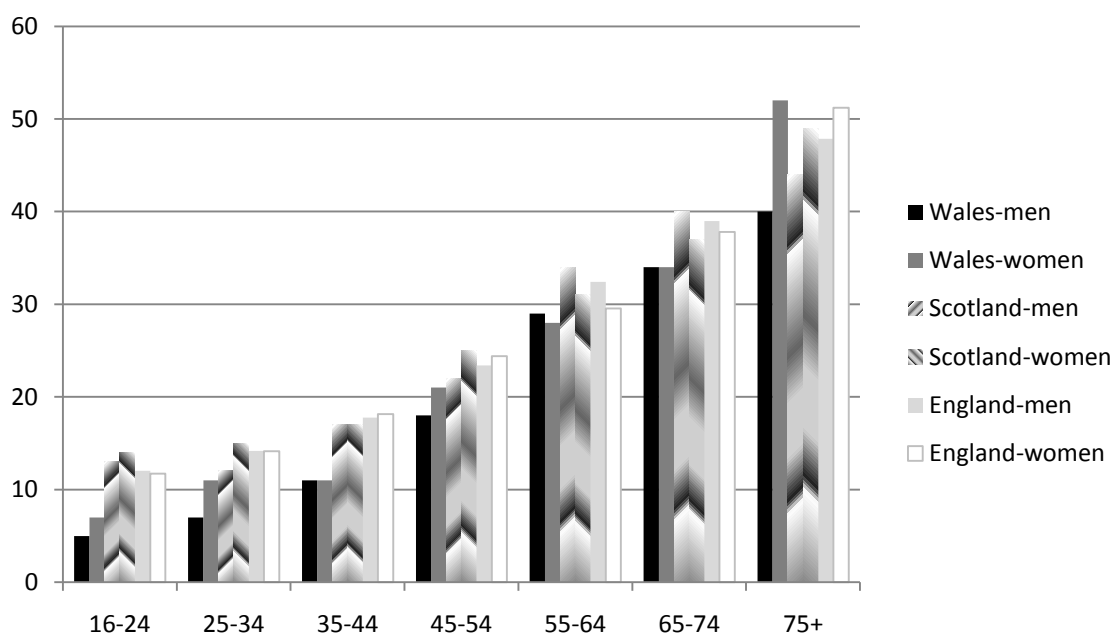
### Self-reported general health

#### *Percentage of people reporting 'not good' health: current picture*

The 2008 health surveys in England, Wales and Scotland included questions designed to capture self-reported general health, though the exact form of the questions differed slightly (See Chapter 3 Methods) (Corbett, et al. 2009; Welsh Assembly Government; Craig, Mindell and Hirani 2009).

Overall, the following proportions of adults aged 16+ reported their health to be other than 'good': England 23.7% of men and 24.7% of women; Wales 20.9% of men and 23.2% of women; and Scotland 24.6% of men and 25.4% of women - small differences that were not statistically significant. Figure 18 presents this variable for men and women by age-group.

Figure 18: Percentage of people reporting not good health by sex, England, Wales and Scotland, 2008



Source: HSE 2008, SHeS 2008, WHS 2008.

Notes: Question wording varied slightly between the surveys. Welsh figures group responses 'fair' and 'poor', while Scottish and English figures group responses 'fair', 'bad' and 'very bad'.

Across all three countries, a higher proportion of women than men tend to report not good health with few exceptions across all the age-groups, though the differences are not large and mostly not statistically significant. Not surprisingly, among both men and women there is a sharp increase in the proportion reporting not good health with rising age. The age-sex patterns across the three countries are complex, with no one country standing out as having higher rates across the board. While the Welsh rates are lower for men and women at most ages, the wording of the questions were not exactly the same in the three surveys and this is likely to compromise comparability.

*Percentage of people reporting 'not good' health: trends over time:*

Trend tables are routinely produced for the HSE. Data from 1993 to 2008 do not suggest any consistent patterns among men or women in the proportion reporting not good health. The differential between men and women has remained reasonably stable throughout the period.

European comparisons are not particularly helpful because both the form and the interpretation of questions varies in important ways across countries.

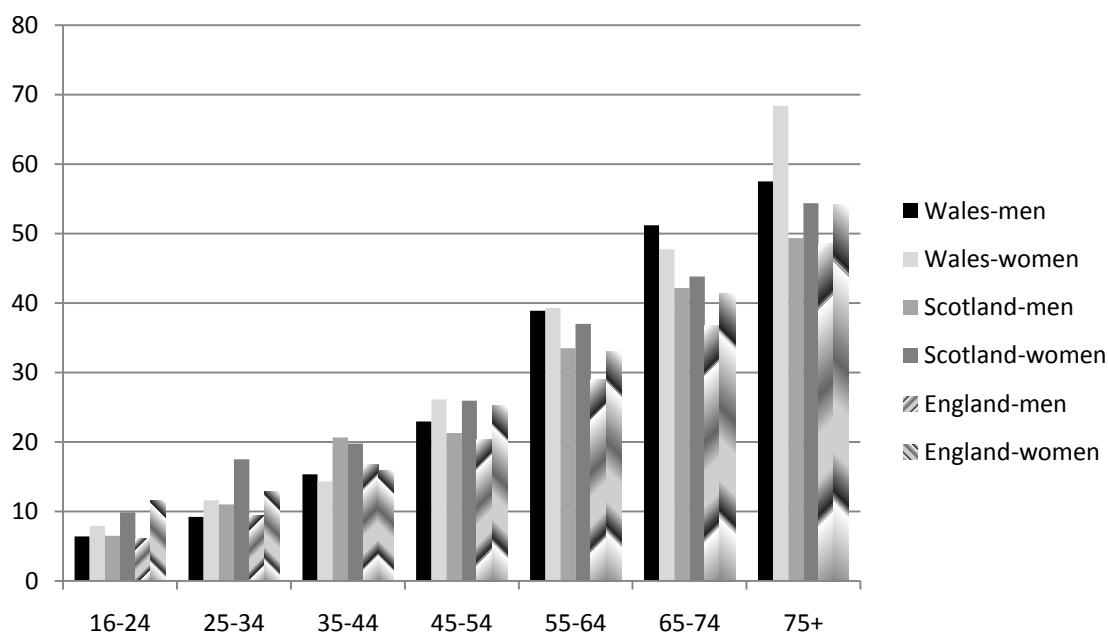
## **Self-reported limiting long-term illness or disability (LLTI)**

*LLTI: Current picture*

The 2008 health surveys in England, Wales and Scotland included questions on limiting long-term illness (LLTI) and disability. Among both men and women, a large proportion of the working age population of the three countries of Great Britain report having a LLTI. Women's level of reported LLTI was statistically significantly higher than men's in 2008 in the HSE in which 21.7% of men and 25.4% of women aged 16+ reported having at least one limiting longstanding illness or disability, in the SHeS in which 23.3% of men and 27.9% of women reported LLTI and in the WHS 2008, in which 26% of men and 29% of women reported LLTI (figures reported rounded to nearest whole percentage).

The results for men and women are presented by age-group in Figure 19 below. At most ages, across all three countries, a higher proportion of women than men report a LLTI. The exception is the 35-44 year age-group where there is little difference in the rates between men and women, and men's rates are a little higher in all three countries.

Figure 19: Percentage of people reporting a limiting long-term illness or disability by sex, England, Wales and Scotland, 2008



Source: HSE 2008 (authors' analyses), SHeS 2008, WHS 2008.  
 Notes: Question wording varied slightly between the surveys (See Chapter 3 Methods)

*LLTI: trends over time*

HSE trend data from 1993 to 2007 suggest that the proportion of men and of women reporting an LLTI has increased slightly over the period, though the differential between men and women has remained constant. Analysis of the General Household Survey, which includes a longer time period, confirms the steady increase over time since the 1970s in the overall proportion of men and women who report LLTI and disabilities, a function of the ageing population (ONS 2004). However, there are no clear changes in the sex differentials in reporting, with slightly higher levels among women being the consistent pattern.

## **Healthy years of life**

The ONS produces two measures that combine life expectancy and population data with self-reported indicators of general health described above to describe the years of healthy life that a person can expect to live from a particular age: (1) Healthy Life Expectancy (HLE) which defines healthy life as years in good or fairly good self-perceived general health, and (2) Disability-free Life Expectancy (DFLE) which defines healthy life as years free from limiting longstanding illness (LLTI).

In 2005–07 males in the UK could expect to live in 'good' or 'fairly good' health for 68.4 years at birth and females for 70.4 years. Looking across the three countries of interest to the EHRC, in all cases females had higher HLE at birth than males, though the gaps between males and females are smaller than for life expectancy indicating that a portion of the additional years lived by women are spent with 'poor health'.

England had the highest HLE at birth for both males and females (68.7 years and 70.7 years respectively), followed by Scotland (67.3 and 69.9 years respectively), with Wales having the lowest figures (67.1 and 69.1 years respectively). The relatively better figures for Scotland's HLE compared to its low life expectancy figures suggests that Scottish residents spend the least number of years of life in 'poor' health compared with residents of the other UK countries.

In 2005–07 males born in the UK could expect to live 62.5 years free from a LLTI, and females again had a slight advantage and could expect to live 63.7 years. Again, of the three countries of focus, England had the highest DFLE at birth for both males and females, and DFLE estimates for Scotland were the second highest for males and females at birth (61.7 and 63.2 years respectively).

## **Poor mental health and wellbeing**

General population studies have found that the overall prevalence of mental illness does not differ significantly between women and men, though there are clear sex differences in the prevalence of specific disorders (Doyal et al. 2003). Anxiety, depression and eating disorders are more commonly reported in women; substance

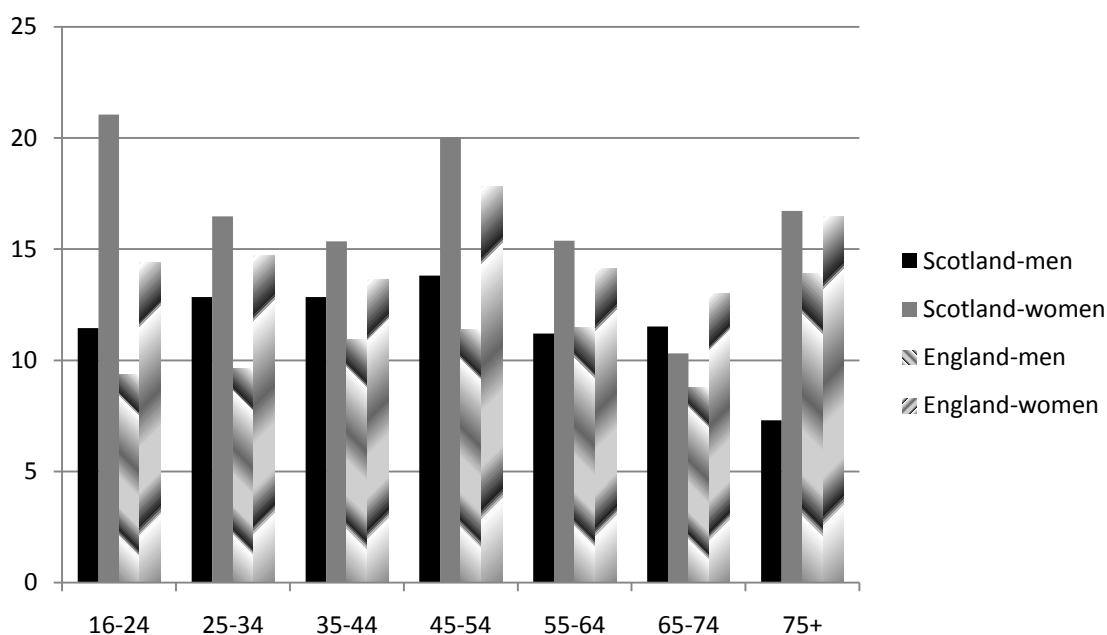
misuse and anti-social personality disorders are more commonly reported in men. Sex differences are also observed in the way in which women and men present with mental ill health. In contrast, schizophrenia and bipolar affective disorder do not show such clear gender differences in prevalence, though there is some evidence that schizophrenia may have an earlier onset and a more disabling course in men. Post-natal depression is experienced by a significant proportion of women and a smaller number suffer post-partum psychosis (Department of Health 2002).

A variety of general measures of poor mental health have been used in the UK. The EMF includes the use of a score of four or more on a standard set of questions known as the GHQ-12 to identify individuals with a probable common mental disorder (including depression and anxiety). This measure is available in the HSE 2008 and the SHeS 2008, but the MHS 2008 used a different measure of mental wellbeing - SF36(MHI-5) which has also been shown to be a robust measure of common mental disorders (See Chapter 3 Methods).

#### *Poor mental health: current picture*

In the HSE 2008, 10.6% of all men had GHQ12 score of 4+ compared to 14.9% of women, and in Scotland these figures were 12.4% of men and 17.1% of women, in both cases statistically significant differences. Figure 20 shows that in England and in Scotland at almost all ages, women were more likely than men to have a high GHQ-12 score (the single exception being in the Scottish sample of people age 65-74 years where the male rate was a little higher than that among females).

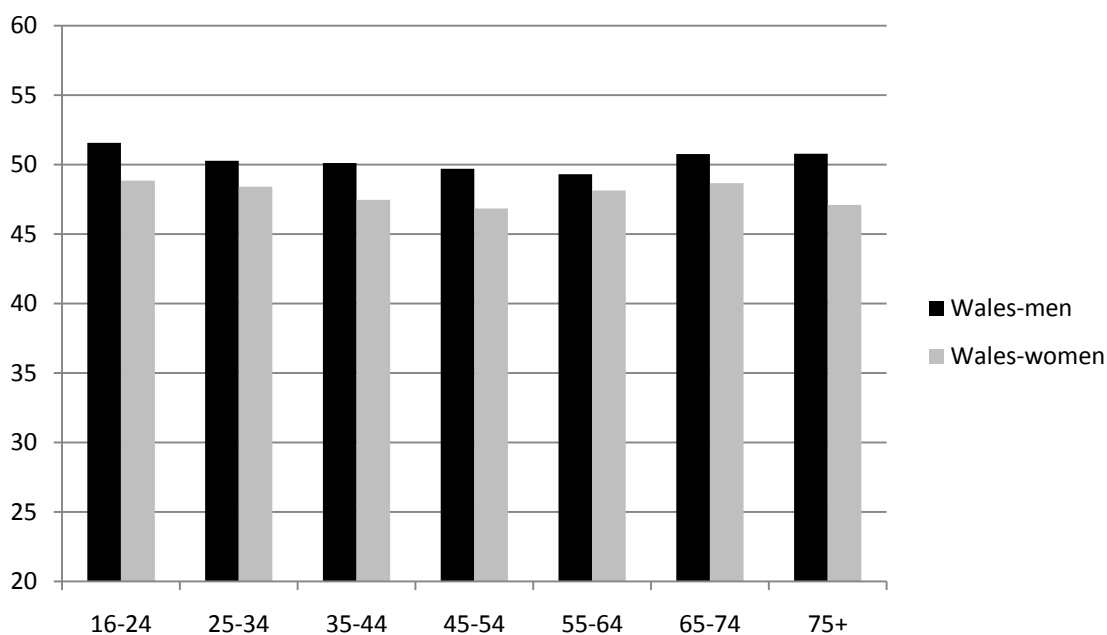
Figure 20: Percentage of people with GHQ-12 score of four or more by sex and age-group, England and Scotland, 2008



Source: HSE 2008, SHeS 2008 (authors' analysis).

The data available for Wales from the WHS 2008 show a similar pattern, with women consistently having a lower mean SF36 score, indicative of poorer mental health, than men (Figure 21).

Figure 21: Mean SF36 score by sex and age-group, Wales, 2008



Source: WHS 2008, authors' analysis. Lower score indicates poorer mental health.



*Poor mental health: trends over time:*

The proportion of all men and women with a GHQ12 score of 4+ according to the HSE series was 15% and 19% respectively in 1999, 11% and 15% in 2004, and 11% and 15% in 2008, suggesting a slight decrease over time for both sexes but a persistent sex gap. The proportion of men and women of different ages with a GHQ12 score of 4 + is available from the SHeSs of 1995, 1998, 2003 and 2008, reproduced in Table 11 below. However, no consistent patterns emerge over time and the differential between women and men persists across all age-groups and for all years.

Table 11: GHQ12 scores (percentage with score 4 or more), Scotland, 1995, 1998, 2003, 2008, by age and sex

GHQ12 score 4+	Age							Total 16+	Total 16-64
	16-24	25-34	35-44	45-54	55-64	65-74	75+		
	<b>Men</b>								
1995	9	11	12	17	17	-	-	-	13
1998	9	12	13	12	20	11	-	-	13
2003	10	12	14	14	13	13	14	13	13
2008	12	13	13	15	12	11	7	12	13
	<b>Women</b>								
1995	16	23	19	22	16	-	-	-	19
1998	17	18	19	20	19	15	-	-	19
2003	16	17	18	18	15	14	18	17	17
2008	20	16	17	21	17	11	16	17	18

SHeS 1995, 1998, 2003, 2008. Figures supplied rounded to nearest whole percentage

*Under-reporting and under-diagnosis in men:*

There are growing concerns that men's mental health problems may frequently remain undiagnosed and untreated (Wilkins 2010). It is likely that at least part of the consistent excess risk of common mental disorders among women may be explained by lower reporting among men. The higher rates of suicide among men than women

reported above are consistent with such an explanation, though it has also been found that women have higher levels of attempted suicide than men and higher rates of hospital admission for self-harm. Regardless of these complications, it is increasingly recognised that the sociocultural constructions of masculinity, particularly acceptable 'masculine' ways of dealing with emotions and stress, undermine men's mental well-being. At the same time, these gendered norms and expectations are bad for women's mental health and wellbeing too, as is starkly illustrated by the fact that around 90% of domestic violence incidents are perpetrated by men and women are the victims of such violence in 85% of cases (Kershaw, Nicholas and Walker 2008). The BCS 2007/8 estimates that around 10,000 women are sexually assaulted, and 2,000 women are raped, every week. Younger women are more at risk of domestic violence than older women. It has been estimated that 19% of the total disease burden carried by women aged 15-44 in developed countries is the result of domestic violence and rape (Doyal, 2001).

### **Other specific health conditions of concern:**

In addition to the core indicators identified in the EMF, it is important to highlight some other health conditions that are a cause for concern, particularly those that have a gendered dimension. Rising rates of diabetes are seen among both men and women across all three countries, though rates among men continue to be higher than among women.

The high levels of sexually transmitted infections (STIs) in the UK and substantial increases in infection rates over the past few years are a cause for concern. Incidence data relating to STIs are routinely collected in genitourinary clinics and collated by the Health Protection Agency (KC60 data). This is the best information available but it is limited because it is confined to a single service provider. These data indicate a greater burden of infection in males overall. In 2008, from a total of 399,738 new diagnoses of STIs in the UK, 232,031 (58%) were in males and 167,707 (42%) in females. The differences in diagnosis rates are most marked in relation to syphilis and gonorrhoea in males with particularly high rates of infection in men who have sex with men (MSM). The number of cases of syphilis being diagnosed has risen dramatically in recent years, with the greatest increase being in males. Chlamydia is also a health concern both in terms of the amount of infection

and its potential complications. A national screening programme is in place for 15-24 year olds, managed separately across England, Scotland and Wales. In England, there has been higher uptake of screening among females than males. In 2008/9, 16% of 15-24 year old population of England were screened, and this constituted 24% of the female and 8% of the male population in that age-group. The proportion of positive cases among index cases (those who accepted opportunistic testing through the national screening programme) were found to be higher for women (8%) than men (6%) (Health Protection Agency 2009).

Maternal and reproductive health issues are a concern for some sub-groups of women, particularly new migrant women. Female Genital Mutilation presents particular health risks, but there is also evidence that maternal health more generally can be compromised for vulnerable migrant and minority ethnic women (See Chapter 7 Ethnicity for a fuller discussion of these issues).

## **HEALTH: Process indicators**

### **Low perception of treatment with dignity and respect**

Analyses of data from the 2007 Citizenship Survey of England & Wales performed for this report found no difference in the responses of men and women to the question *'In general, would you say that you are treated with respect when using health services?'*. 91% of both men and women in England & Wales answered 'all the time' or 'most of the time', with 9% of both groups saying 'some of the time or less'. There are, however, some doubts as to the usefulness of this question since the pattern observed by age - with very few older people reporting 'some of the time or less' - is inconsistent with other research that highlights the poor treatment of elderly patients.

Similarly, analyses of the Living in Wales Survey 2008 performed for this report found no difference between men and women in the percentages agreeing with the statement 'I was treated with dignity and respect' when referring to GP services - with just 3% of men and 4% of women disagreeing; or when referring to inpatient, outpatient or day case hospital experience - with 4% of men and 4% of women disagreeing. Again, the proportion disagreeing was highest among the youngest age-group for both men and women and declined steadily with increasing age for both the statement referring to GP treatment and that referring to hospital treatment. In the case of GP treatment, 13% of women and 6% of men aged 16-24 years disagreed compared to just 2% of women and less than 1% of men in the 75+ years age-group.

Better Together, Scotland's Patient Experience Programme, has undertaken recent surveys of patients in GP practices and in-patients but at present these data are not presented in a way that allows examination of potential inequalities by sex. A qualitative study of patient preferences and experiences within the Scottish NHS has recently been completed (Bruster 2008). Being treated with dignity and respect was identified by patients as an important dimension of GP care, but the study did not highlight any particular gendered concerns about lack of respect or dignity in

treatment (Bruster, 2008). Two recent surveys were also commissioned in Scotland to inform the development of the GP service and in-patient experience surveys in that country. These surveys have produced some insights into the aspects of care that are most important to Scottish patients (McKissock 2008; Reeves and Bruster 2009). In the survey of GP users, respondents were more likely to rank 'having enough time', 'listening to me' and 'talking to me in a way that I can understand' as priorities for interactions with health professionals rather than 'being treated with dignity and respect'. In the survey of in-patients, respondents ranked cleanliness as the most important aspect of their care and experience, though being treated with dignity and respect was considered important along with prompt treatment in an emergency, getting the best treatment, doctors' clinical competence, and good information about their condition and treatment. It seems likely that these relative rankings may reflect perceptions of areas where services sometimes do badly as well as aspects that are inherently important to users. No significant sex issues were identified in these reports.

While the overarching Care Quality Commission reports do not draw attention to any important sex/gender issues in terms of treatment with dignity and respect, the specialist surveys of maternity services have highlighted some areas where women's experience of health services are less than satisfactory. The 2007 survey of women's experiences of maternity services in the NHS in England found that overall levels of satisfaction with services were high, with a majority of women reporting a positive experience, but also identified some areas of concern. For instance:

- during labour and/or at the birth of their baby, a quarter of respondents (26%) reported that they had been left alone by midwives or doctors at a time when it worried them and 30% did not always feel involved in decisions about their care
- 20% of women rated the overall care received after the birth of their baby as either "fair" or "poor"
- of those respondents who stayed in hospital after the birth, 42% said they were not always given the information or explanations they needed and 37% felt they had not always been treated with kindness and understanding

- of the respondents who stayed in hospital after the birth, over half (56%) said the hospital food was “fair” or “poor” and 19% said the toilets and bathrooms were “not very clean” or “not at all clean”.

The report of this survey also concluded that NHS services needed to do more to involve women in their maternity care (Healthcare Commission 2007).

## **Health-related behaviours and life-style factors**

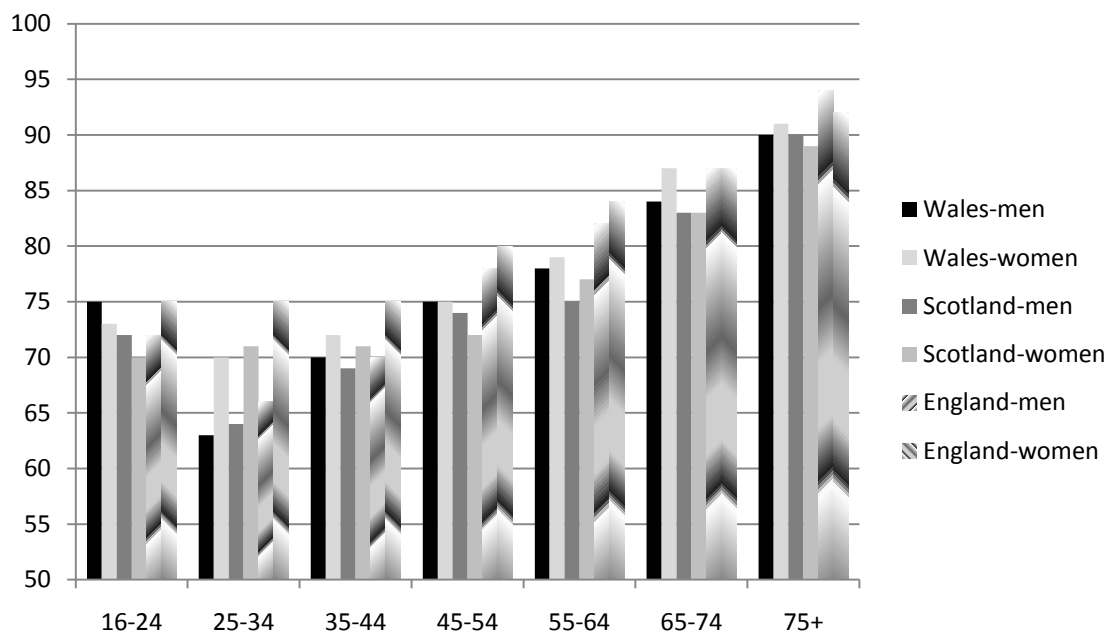
The HSE 2008, WHS 2008 and SHeS 2008 are used here to assess the current patterns across sex of the core EMF indicators of healthy life-styles. Wherever easily accessible, we also present trend data for the three countries by sex, although patterns over time may be difficult to discern where the questions and indicators have changed across survey periods. Furthermore, methods of age-standardization are not always consistently applied by analysts producing the published reports from these three national-level surveys.

### ***Smoking***

#### *Percentage of people not smoking cigarettes: current picture*

Figure 22 presents the percentage of people not currently smoking cigarettes by age-group and sex for Wales, Scotland and England. The sex patterns are complex across the ages and the countries, with no consistent picture. In England, women were less likely to report smoking than men at all ages except the oldest age-groups. In contrast, in Wales, women are more likely to be currently smoking than men in the youngest age-group - 16-24 years - though they are less likely, or have very similar rates of smoking to men, at all other ages. In Scotland too, the youngest age-group sees more women being smokers than men, though the sex patterns are varied across the older age-groups. That said, it is notable that the differences between the sexes are not large (and do not all reach statistical significance) except in the 24-35 year age-group.

Figure 22: Percentage of people who report not currently smoking cigarettes by sex and age-group, England, Wales and Scotland, 2008



Source: HSE, 2008, WHS 2008 and SHeS 2008.

Note: Figures include those who are ex-smokers and those who have never smoked.

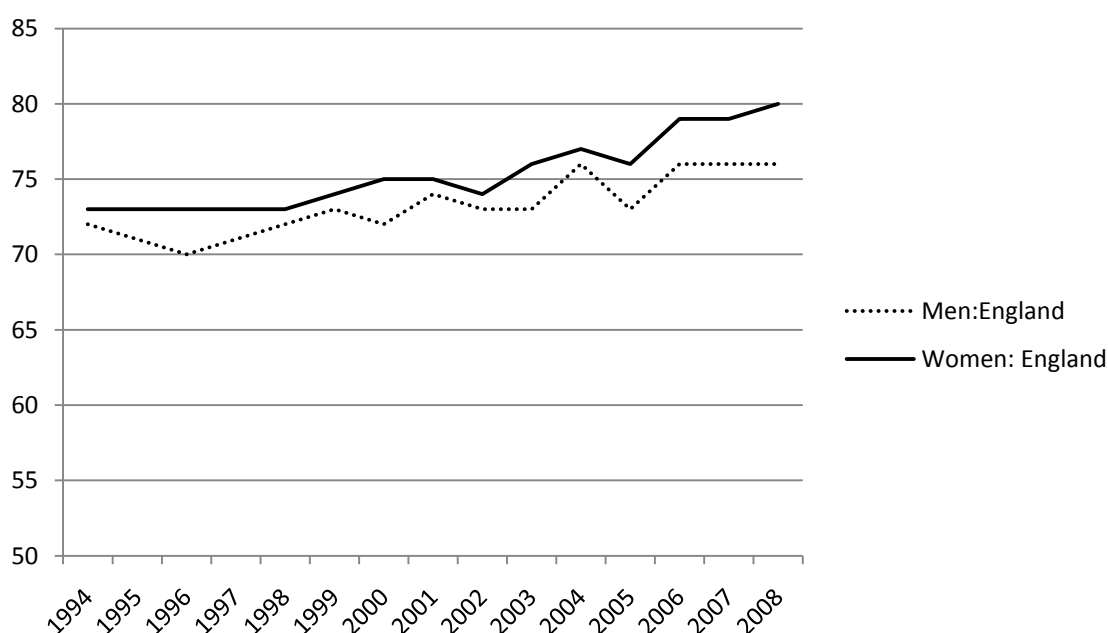
*Percentage of people not smoking cigarettes: recent trends over time*

Analysis of data for Great Britain from the General Lifestyle Survey (GLF, a part of the Integrated Household Survey IHS and previously the General Household Survey, GHS) reveals that there were sharp declines in the proportion of both men and women who smoke cigarettes in the 1970s and the 1980s but that the declines became less steep in the 1990s and levelled out. Since 2000 a slow and steady decline has resumed. Throughout the period in which the GHS has been monitoring cigarette smoking, the prevalence of smoking has been higher among men than women but the gap was far greater in the 1970s - around 10 percentage points - than in more recent years. In 2008, the difference between men and women was not statistically significant - 88% of men and 89% of women reported themselves to be *not* current cigarette smokers in the GLF (Robinson and Buglar 2008).

Trends produced using HSE data also show increasing proportions who report not smoking among both men and women in England since 1994. Again, men were more likely to smoke than women across the whole time period and recent estimates suggest a slight widening of the gap between men and women in the proportion who do not smoke (Figure 23).

Trend data are available from the SHeSs for 1995, 1998, 2003 and 2008 and show that the proportion of all men (aged 16-64 years) not currently smoking increased from 66% in 1995 to 71% in 2008. Among women the increase was from 64% to 72%. For Wales, we have trend data only for more recent years. The proportion of men (aged 16+) who do not currently smoke was estimated to be 73% in 2003/4 and 75% in 2008 and the proportion of women, 74% in 2003/4 and 78% in 2008.

Figure 23: Percentage of people reporting not currently smoking cigarettes by sex, England 1994-2008



Source: HSE latest trend tables <http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england--2008-trend-tables>

Age-specific trends are available from the HSEs from 1993 to 2008, though the estimates are rather volatile given the relatively small numbers involved. The upward trend towards fewer people smoking seems to be most consistent and pronounced among women aged 25-34 years, and the gap between the sexes has widened over time for this age-group.

Trends for Scotland are also available by age-group from the SHeS 1995, 1998, 2003 and 2008. Again, the trend over time in not smoking is more consistent for women aged 25-34 years than for other groups.



The HSE 2007 collected more detailed information on smoking practices and highlighted the fact that among current smokers men are more likely to smoke heavily than women. Male smokers reported smoking more cigarettes a day on average than female smokers (14.0 cigarettes and 12.4 cigarettes respectively) (Craig and Shelton 2008).

It is also worth highlighting the sex patterns in smoking that have been found among teenagers, since they diverge from those seen among adults. Data from the HSE series show that teenage girls are more likely to have ever-smoked and to be currently smoking than teenage boys at all ages between 12 and 15 years. In a survey of school pupils in England in 2004, 26% of girls and 16% of boys aged 15 years reported smoking regularly (Westlake and Yar 2006). The HSE trend tables indicate a downward trend over time from 1997 to 2008 in the proportions of boys and girls who have ever smoked, though the proportion remains higher in girls than in boys. For boys, the proportion who had ever smoked was 18% in 1997 and 11% in 2008, and for girls the figures were 20% in 1997 and 13% in 2008 (NatCen UCL 2009).

In 2008, the Scottish Schools Adolescent Lifestyles and Substance Use Survey (SALSUS) reported that the proportions of 13-15 year-old girls and boys currently smoking has declined considerably from its peak in 1996. In 2008, it was estimated that 16% of 15 year old girls and 14% of 15 year old boys currently smoked (a difference that was not statistically significant) (NHS Scotland 2008b).

### ***Overweight and obesity***

Obesity is highlighted as an area of concern in public health policy documents (Scottish Government 2010, Welsh Assembly Government 2010, ScotPHO 2007a, Department of Health 2004). While obesity affects both men and women, some significant gender differentials are observed.

#### *Proportion of people who are not overweight or obese: current picture*

In terms of the EMF chosen indicator - the proportion of people who are not overweight or obese - men generally do worse than women across all three

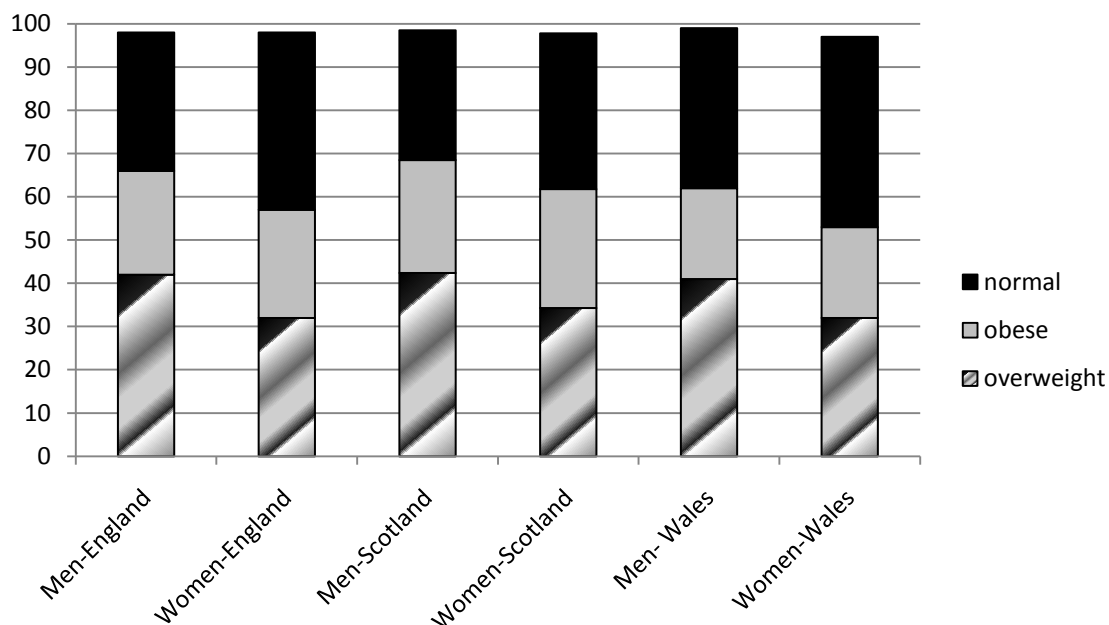
countries. The WHS 2008 reported that overall 62% of men aged 16+ years were overweight or obese (BMI of 25+), and 21% were obese (BMI of 30+), compared to 53% of women who were overweight or obese and 21% who were obese. Excluding the small number of people who are underweight, this means that 37% of Welsh men and 44% of Welsh women were found to be of 'healthy/normal weight' in 2008.

In the HSE 2008, overall 66% of men aged 16+ years were overweight or obese and 24% were obese, compared to 57% of women who were overweight or obese and 25% who were obese. Excluding people who are underweight, this means that 32% of English men and 41% of English women were found to be of 'healthy/normal weight' in 2008. However, using additional indicators that incorporate waist circumference measures, the HSE 2008 reported that 35% of men and 41% of women were at 'high' or 'very high' risk of chronic health conditions due to their obesity levels.

The SHeS 2008 found that overall 69% of men aged 16+ years were overweight or obese, and 26% were obese, compared to 62% of women who were overweight or obese and 28% who were obese. Excluding the small number of people who are underweight, this means that 30% of Scottish men and 36% of Scottish women were a 'healthy/normal weight' in 2008.

Figure 24 contrasts these levels of overweight, obesity and healthy weight by sex across the three countries. The stacked bars illustrate that across all three countries a higher proportion of men than women are overweight or obese, but that this differential is explained by the greater proportion of men who fall into the overweight category (BMI 25 to less than 30). Levels of obesity were highest in Scotland for both men and women, and Scottish women had the highest level of obesity among all the sub-groups.

Figure 24: Percentage of people overweight, obese and with normal weight by sex, England, Scotland and Wales, 2008

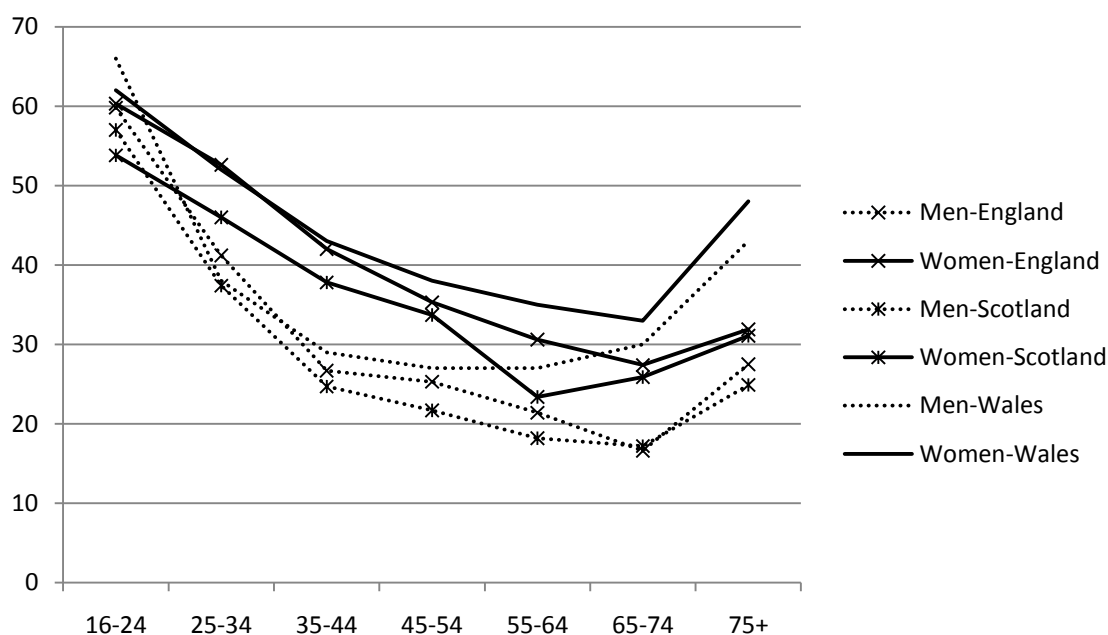


Source: HSE 2008, SHeS 2008, WHS 2008

Notes: Overweight is categorised as BMI 25 to less than 30, obese as BMI over 30, and normal weight as BMI 18.5 to less than 25.

Looking across the age range, the proportion of men and women with a normal weight declines gradually with increasing age up to the age-group 65-74, and then rises again among the oldest, 75+ years, age-group across all three countries and for men and for women (Figure 25).

Figure 25: Proportion of people with 'normal/healthy' weight by age-group and sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHeS 2008, WHS 2008

Notes: Normal weight includes those who are not overweight, obese or underweight.

### European comparisons:

The prevalence of obesity in England, Scotland and Wales is high in comparison with EU-15 countries (countries that were EU members prior to 2004) and the wider OECD group of nations (Sassi, et al. 2009). Scotland has one of the highest levels of obesity in OECD countries; only the USA and Mexico having higher levels (Scottish Government 2010).

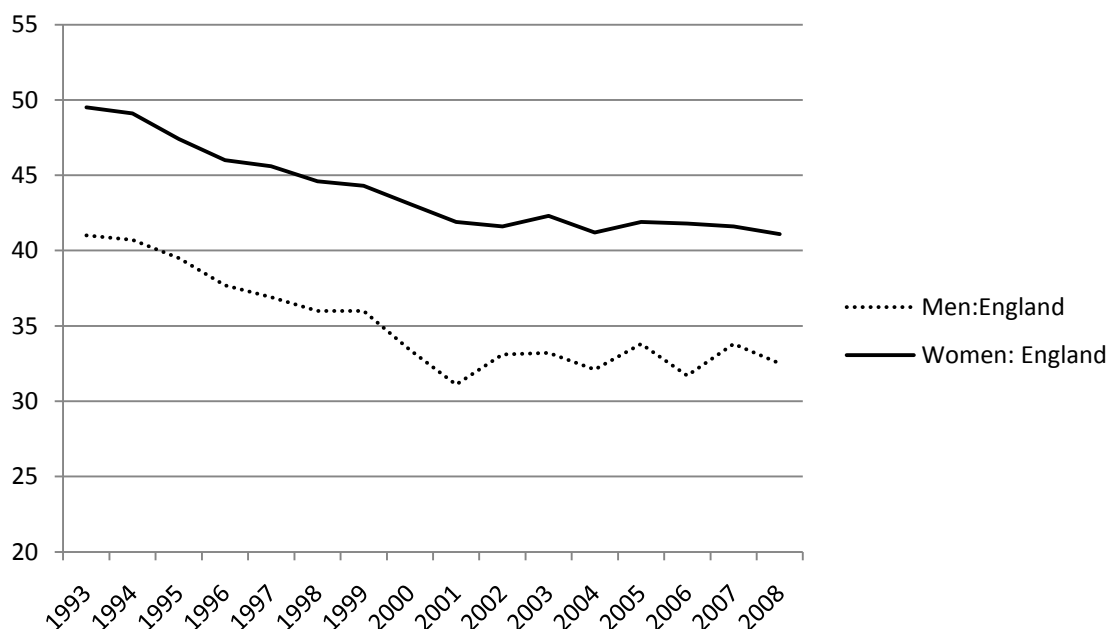
### Proportion of people with normal weight: trends over time

Analyses of data from the HSE, WHS and SHeS series allow some exploration of trends over time in levels of obesity and normal weight by sex.

In England, between 1993 and 2008, the proportion of men and women recording a normal or healthy weight declined steadily, though the gap between men and women remained roughly stable (Figure 26). This decrease is explained by the rapidly rising proportions of people in the obese category - from 13% in 1993 to 24% in 2008 among men, and from 16% to 25% among women in the same time period, while the proportions who are 'overweight' have remained fairly stable over time. Clearly, the

gap between men and women in the proportion obese has declined over time, since men's obesity levels have been increasing more rapidly than women's.

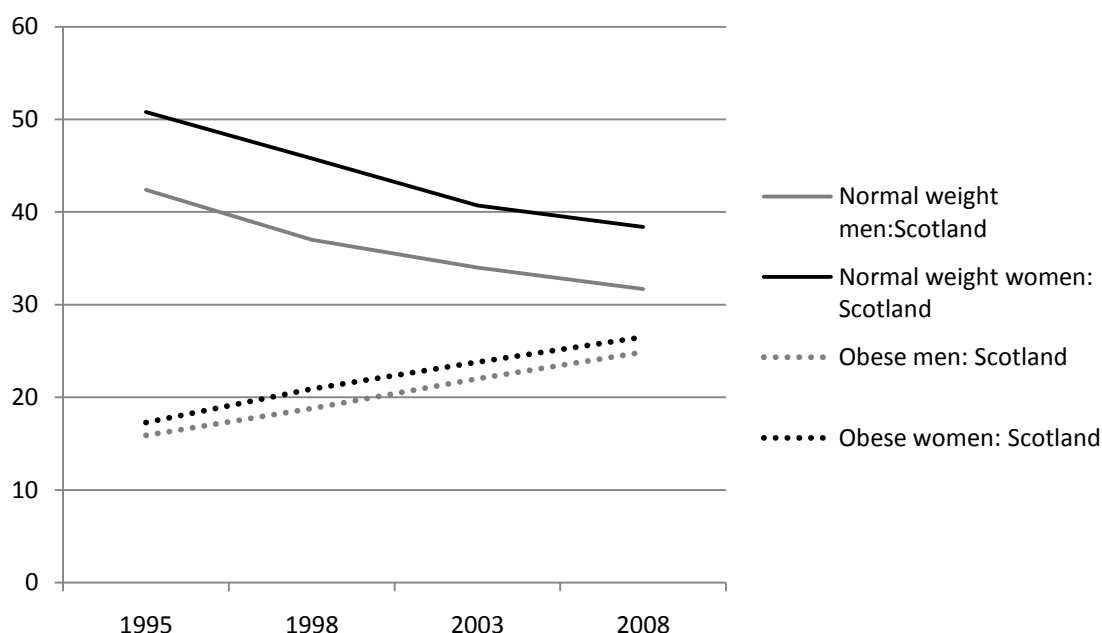
Figure 26: Percentage of people with 'normal/healthy' weight by sex, England 1994-2008



Source: HSE latest trend tables <http://www.ic.nhs.uk/statistics-and-data-collections/health-and-lifestyles-related-surveys/health-survey-for-england/health-survey-for-england--2008-trend-tables>

In Scotland too, the prevalence of normal weight has decreased and the prevalence of obesity has increased over the past two decades among both men and women (Figure 27). There is some evidence that women's level of obesity is increasing faster than that of men in Scotland (Scottish Government 2009a), in contrast to the picture in England.

Figure 27: Percentage of people who have 'normal/healthy' weight and who are obese by sex, Scotland 1995, 1998, 2003 and 2008



Source: SHeS 2008 report.

Trend data for Wales are only available from 2003/4 to 2008. Among men, the proportion found to be obese was 17% in 2003/4 and rose steadily to 21% in 2008, and the figures for women were 18% in 2003/4 and 21% in 2008. The proportion of men who were not overweight or obese was 41% in 2003/4 and dropped to 38% in 2008, with the corresponding figures for women being 51% in 2003/4 and 47% in 2008 (though, as noted above, these figures include around 2-3% of people who are classified as underweight).

Age-specific trend data do not reveal any important differences by age. In general, levels of obesity are rising, and levels of normal weight declining, across all age-groups and both sexes, across all three countries.

### **Physical activity**

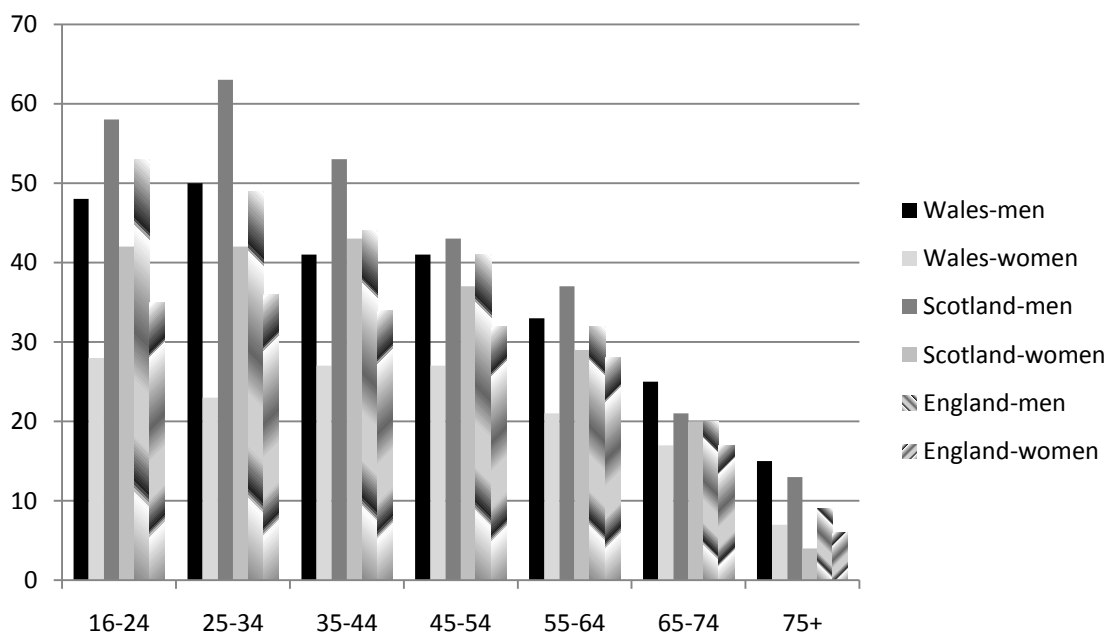
The collection of data on physical activity through self-reports in standard face-to-face questionnaires is difficult and recent analyses of detailed data from the HSE 2008 have illustrated the significant over-estimation that occurs when self-reports are taken as indicative of actual physical activity (see below). Nevertheless, for the

purposes of comparing between men and women, self-reports may illustrate the existence of important sex differences even if the absolute levels are poor estimates.

*Proportion of people meeting government guidelines on physical activity: current picture*

Taking data from HSE 2008, SHeS 2008 and WHS 2008, we find that the proportion of men who report that they meet the government's recommendations for the minimum level of activity to achieve health benefits exceeds that of women at every age-group across all three countries (Figure 28). Sex differences are particularly large at the younger ages and decline from age 45 years onwards. Regardless of the sex differential, it can be seen that in almost all sub-groups less than 50% of people are meeting the government guidelines. Since the Scottish survey employed a slightly different measure, it is likely that the noticeably higher levels reported for Scottish men in the younger age-groups are not strictly comparable with the other two countries.

Figure 28: Proportion of people meeting government recommendations for weekly physical activity by sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHeS 2008 and WHS 2008

Note: The measures are not directly comparable across the surveys since they were computed slightly differently. In the SHeS figures bouts of 10 minutes or more have been accumulated to meet the 30 minutes, 5 times a week threshold, whereas in the HSE episodes of activity less than 30 minutes are excluded. In the WHS, the measure represents five or more days in which 'at least moderate exercise/activity' was undertaken



A more detailed picture from HSE 2008:

The HSE 2008 focused on physical activity and fitness and collected data through self-reported activity, objective measures of activity and also fitness tests on a sub-sample of respondents. Across all the measures, consistent sex differences were seen with men being found to be more active than women. Based on self-reported information, 39% of men and 29% of women aged 16 and over met the government's minimum recommendations for physical activity. However, when actual physical activity was measured using an accelerometer, just 6% of men and 4% of women met the current government recommendations of 30 minutes moderate exercise 5 times a week. Young adults aged 16-24 years were most likely to have met the recommendations, but here too more men (11%) than women (8%) had achieved the target. The proportion of both men and women meeting the recommendations fell in the older age groups. Cardiovascular fitness was assessed among a sub-sample of survey participants aged 16-74, using a step test. 32% of men and 60% of women were not fit enough to sustain walking at 3mph up a 5% incline, and were classified as 'unfit'. The survey found that the proportion of people being classified as 'unfit' increased significantly with age. Among children, physical activity levels were much lower among teenagers than among younger children, and there were large and statistically significant differences between teenage girls and boys with girls being less likely to take recommended levels of exercise (Craig, Mindell and Hirani 2009).

Interestingly, the HSE has found that a high proportion (60-70%) of men and women across all age-groups reported that they would like to do more exercise, and that more women than men report wanting to take more exercise in all age-groups. There were also sex differences in reasons cited for not doing more exercise with women being more likely to report 'caring for children' and 'lack of leisure time' and men being more likely to report 'work commitments'.

*Proportion meeting government recommendations for physical activity: trends over time*

Analyses of trend data from the HSE series allow trends over time in physical activity levels to be examined for 1997, 1998, 2003, 2004, 2006 and 2008. These data indicate that between 1997 and 2008 the proportion achieving recommended levels of physical activity according to self-reports has increased, from 32% in 1997 to 39%

in 2008 for men, and from 21% to 29% for women. The increases appear to have occurred across all age-groups of women, though the rises were greatest at younger and older ages. Among men too, large increases were seen across all age-groups except the youngest, 16-24 years, where the increase was more modest. However, as noted above, more objective measures suggest much lower levels of physical activity among both sexes.

In Scotland, comparable trend data are available for 1998, 2003 and 2008. There was an increase for men and women over this period in both the proportions meeting the recommendations and in overall levels of physical activity. Both men and women aged 16 to 74 saw an increase of 6 percentage points in the proportions meeting the physical activity recommendations between 1998 and 2008: from 40% to 46% among men, and from 29% to 35% among women, a significant change. The increase in the proportion meeting the recommendations occurred across all age groups among women, and appears to have been largest in the oldest age-groups. In contrast, the largest increases for men were among those aged 25-34 and 35-44, both of which saw rises of 10 percentage points meeting the recommendations. However, this pattern was not evident among men aged 16-24, among whom the proportion meeting the recommendations remained constant at 57%.

Trend data for Wales are available for 2003/4 to 2008. These data show that among men the percentage meeting the exercise guidelines has fluctuated between 36% and 38% over the period. For women, the percentage has also fluctuated with no clear trend between 22% and 25%.

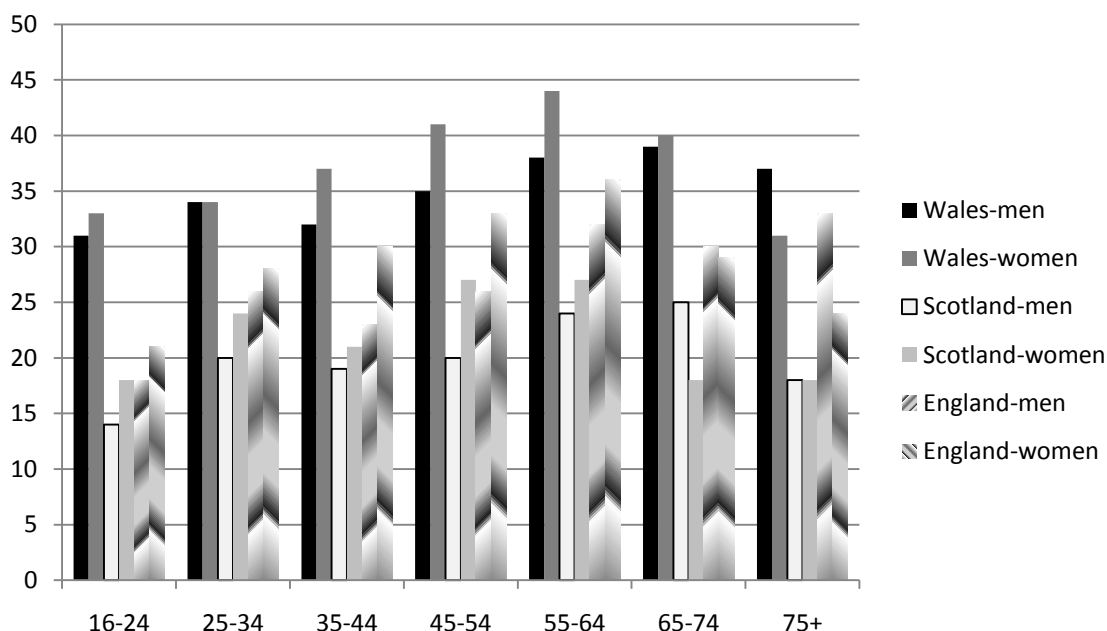
### Healthy eating

The EMF core indicator of healthy eating is the proportion of people who reported eating five or more portions of fruit or vegetables a day (the current government guideline). This measure is produced in the health surveys for England, Scotland and Wales from a list of questions about types and quantities of food eaten.

#### Proportion eating '5 a day': current picture

The SHeS 2008 found that overall 20% of men over 16 years and 24% of women reported eating five or more portions of fruit or vegetables a day. In the WHS 2008, these figures were higher, at 35% of men and 37% of women, and in the HSE 2008, 25% of men and 29% of women reported eating 5 a day. Figure 29 plots the age-specific proportions by sex. While a higher proportion of women than men meet the guideline amounts across the age-groups up to 55-64 years, at the older ages women seem not to be at an advantage and even to be less likely to meet the guideline than men.

Figure 29: Proportion of people meeting government recommendations for daily fruit and vegetable consumption by sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHS 2008 and WHS 2008

Notes: Measure was based on the reported number of portions of fruit and vegetables consumed in the day prior to interview.

*A more detailed picture from HSE 2007:*

The HSE, 2007 focused on the general public's attitudes towards smoking, drinking, eating and physical activity and highlighted a number of important sex differences. A far higher proportion of women (78%) than men (62%) were able to state that the recommended number of portions of fruit and vegetables per day is five, though, as described above, the sex difference in actual consumption is far smaller. When asked about attitudes towards healthy eating, more women than men agreed with the statements 'healthy foods are enjoyable' and 'I really care about what I eat'. A higher proportion of men than women said that they added salt to their food at the table without tasting it first (18% compared with 13%). Overall, 63% of women and 58% of men reported that they rarely or never add salt to food. Around 70% of male and female survey respondents believed their diet to be 'quite' healthy, though women were more likely to consider that they had a 'very' healthy diet (19% compared with 16% in men) and less likely to report their diet as 'unhealthy' (8% compared with 12% of men). More men than women agreed with the statements 'I get confused over what's supposed to be healthy and what isn't' (30% compared with 24% of women) and 'If you do enough exercise you can eat whatever you like' (20% compared to 14%). Respondents who stated that they would benefit from making changes to their diet were asked about any barriers that would prevent making such improvements. The most common barriers were 'I don't have enough time', 'It is hard to change my eating habits' and 'It costs too much', with very similar proportions of men and women reporting each of these.

*Proportion eating '5 a day': trends over time*

The HSE trend data illustrate that among both men and women the proportion who consumed five or more portions of fruit and vegetables per day remained generally steady between 2001 and 2004, but then increased significantly in 2005 and 2006 among both men and women to a similar extent. Among men the proportion rose from 22% in 2001 to 28% in 2006, and from 25% to 32% for women. However, the percentage declined again to 25% of men and 29% of women in 2008. Throughout the period women were more likely than men to report that they eat the recommended quantity of fruit and vegetables, though the differences are not large.

In Scotland, we can compare the reports for 2003 and 2008 only. For all men, the proportion eating the recommended amount was 20% in both 2003 and 2008. For all women, these figures were 22% and 24%.

It is not possible to examine trends over time for Wales since changes in the question wording make the data incomparable.

### ***Alcohol use***

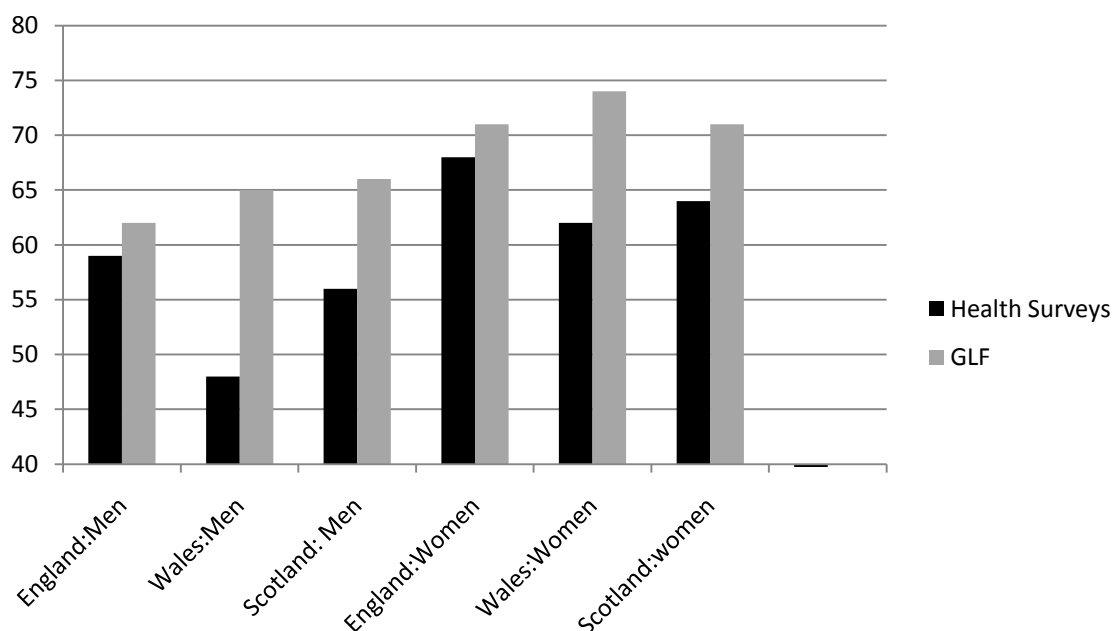
The EMF identifies one of its core indicators as the 'percentage of people not drinking more than the recommended amount of alcohol'. The current Department of Health guidelines about sensible drinking are that men should not drink more than 3 - 4 units of alcohol per day, and women no more than 2 - 3 units (Department of Health 2010) .

#### *Proportion of people not exceeding government drinking guidelines: Current picture*

Data from 2008 from varied sources consistently indicate that a lower proportion of men than women reported drinking only within government guidelines. In England, the HSE 2008 found that overall 59% of men aged 16 years and over and 68% of women reported that they did not drink above government guidelines on any day in the week prior to interview. In the WHS 2008, these figures were 48% of men and 62% of women, and in the SHeS 2008, 56% of men and 64% of women. All these differences were statistically significant.

Data from the GLF (GHS) for 2008 show a slightly different pattern across the three countries to that from the three health surveys, and, though the direction of the sex differences are consistent, the size of the gap between men and women varies between the data sources (Figure 30). The differences between the two data sources are most marked for Wales, and particularly for Welsh men.

Figure 30: Proportion of people reporting drinking within guidelines even on heaviest drinking day in past week by sex, England, Scotland and Wales, GLF and HSE/SHeS/WHS data compared

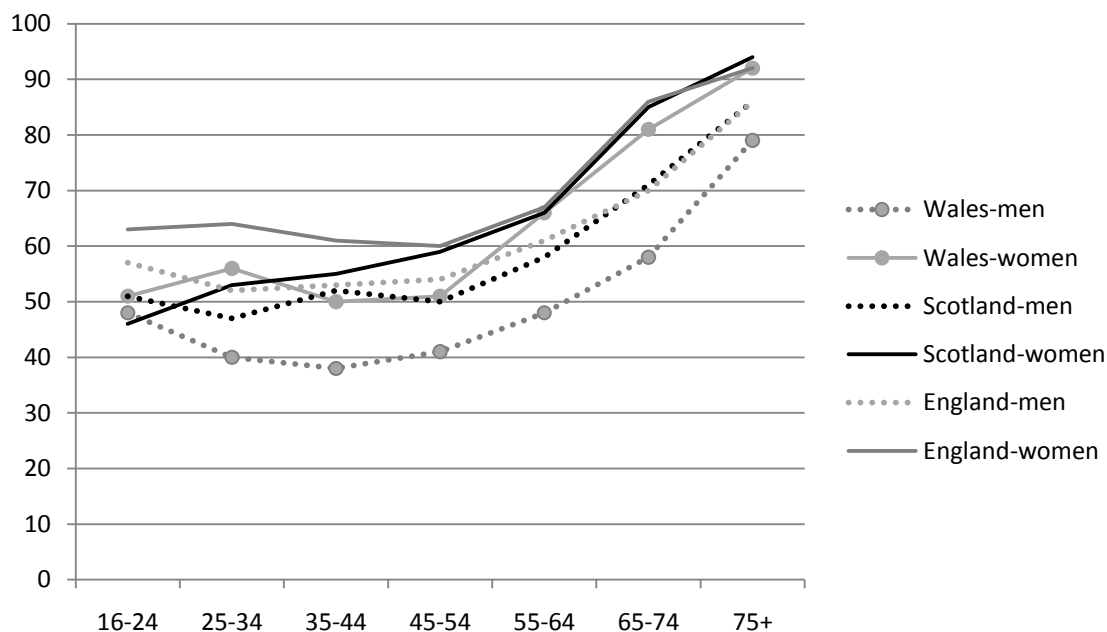


Source: GLF08

[http://www.statistics.gov.uk/downloads/theme\\_compendia/GLF08/GLFSmoking&DrinkingAmongAdults2008.pdf](http://www.statistics.gov.uk/downloads/theme_compendia/GLF08/GLFSmoking&DrinkingAmongAdults2008.pdf) ; HSE 2008, SHeS 2008 and WHS 2008.

Figure 31 presents the age-specific percentages by sex across the three countries using the health survey data. There is only one sub-group where women are less likely than men to drink within guidelines - among Scottish 16-24 years olds 46% of women compared 51% of men reported drinking within the limit. Among both men and women in the three countries the proportion drinking within the guideline amounts is fairly stable up to age-group 45-54, though differentials across the countries can be seen. Beyond age 55, there is a steady increase in all sub-groups with age in the proportions who report that their drinking in the past week, even on the heaviest day, was within government guidelines.

Figure 31: Proportion of people not exceeding government recommendations for alcohol consumption by age-group and sex, England, Scotland and Wales, 2008



Source: HSE 2008, SHeS 2008 and WHS 2008

Notes: The three surveys appear to have employed very similar methods for collecting and computing this variable. In the WHS 2008, respondents were asked to indicate how many measures of each type of alcohol from a list they had consumed on their heaviest drinking day the previous week. 'Within guidelines' includes those who did not drink, and men drinking no more than 4 units, women no more than 3 units, on any day in the previous week.

*A more detailed picture from HSE, 2007:*

In the HSE 2007 a number of additional questions were included that help to provide a more detailed picture of alcohol use. This survey found that 90% of men and 84% of women said they drank alcohol at least occasionally and the majority of adults had drunk alcohol in the last week: 73% of men and 57% of women. This included 22% of men and 13% of women who reported that they had drunk alcohol on five or more days in the last week. Frequent drinking was most common among men and women aged 45 and over and in higher income households. Among those adults who drank in the last week, the majority exceeded recommendations on at least one day; 59% of men and 55% of women had done so. 35% of men and 27% of women had drunk more than twice the recommended levels on at least one day in the last week. This heavy drinking was most commonly reported among the youngest age group (56% of men and 52% of women aged between 16 and 24), and declined with age. Average consumption was also highest among young adults and declined with age. Most adults (92% of men and 89% of women) had heard of 'units' as a way of measuring the volume of alcohol being consumed, but there was less knowledge of the recommended maximum daily intake or the alcoholic content of particular drinks.

*Proportion of people not exceeding government drinking guidelines: trends over time*

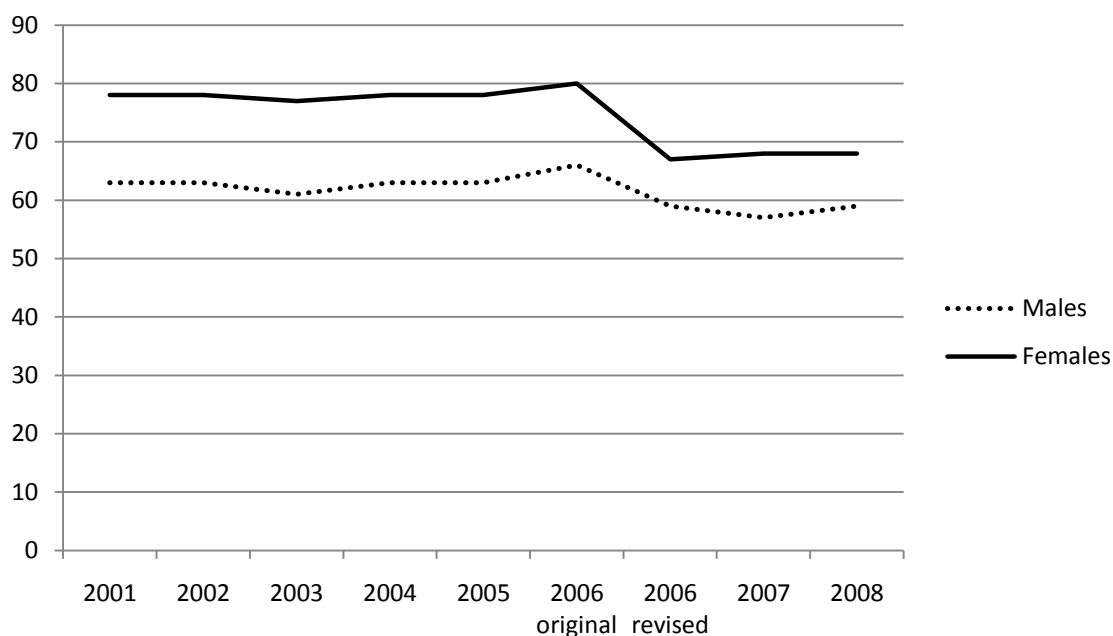
Data from the GLF for Great Britain as a whole have been used to explore trends over time in drinking behaviour whilst taking into account changes in methodology (Robinson and Buglar, 2008). The changes can be summarised as follows. The proportions of men exceeding four units and women exceeding three units on their heaviest drinking day were fairly stable between 1998 and 2004 but have since fallen. Using the original method of converting to units, the figures show falls for both men and women between 2004 and 2006. Using the revised method, the figures show a continuing downward trend. The proportion of men exceeding 4 units on their heaviest drinking day was 41% in 2007 and 37% in 2008. The proportions for women exceeding three units were 34% in 2007 and 32% in 2008. This suggests that a growing proportion of people are drinking within the government guideline, but that the increases in recent years have been smaller among women than men, so that the sex gap is declining over time.

The most marked changes have occurred among men aged 16-24 years where the proportion drinking more than 4 units on their heaviest drinking day fell from 50% in 2000 to 39% in 2006. However, since the introduction of the revised methodology in 2006, the figures have been fairly stable. There have also been large falls for women aged 16-24 years, with the proportion drinking more than 3 units on their heaviest drinking day falling from 42% in 2000 to 34% in 2006. It is too soon to tell whether this trend will continue under the revised methodology since the recent changes observed between 2006 and 2008, though still downwards, are not statistically significant.

Figure 32 presents figures taken from the HSE 2008 latest trend tables that show the trend over time from 2001 to 2008 for England alone. It is important to remember that from 2006 changes were made in the way the HSE and other surveys estimated alcohol consumption. For both men and women the proportion of people drinking within government guidelines remained roughly constant from 2001 to 2006 using the old measures. However, using the new measures from 2006 onwards, the proportion drinking within guidelines is estimated to be rather lower, and the gap between men and women to be smaller. The levels appear to be roughly constant between 2006 and 2008.



Figure 32: Proportion of people reporting drinking within government guidelines even on heaviest drinking day in past week by sex, England 2008



Source: HSE 2008 latest trend tables.

Notes: Changes in data collection and computation methods compromise comparisons over time. Original and revised estimates are given for 2006

Trends over time in this particular indicator of alcohol consumption cannot be produced for Wales since changes in question wording make the figures across years incomparable, and this survey question has only been fielded in recent years. The SHeS 2008 has reported 'estimated usual weekly alcohol consumption' between 2003 and 2008, despite the potential problems in drawing strict comparisons over this period. For men as a whole, the percentage who reported consuming over 21 units per week (that is above recommended weekly levels) was 34% in 2003 and 30% in 2008. For women, the percentage who reported consuming over 14 units per week (that is above recommended weekly levels) was 23% in 2003 and 20% in 2008. Among men and women, a decline was reported for all age-groups except the youngest, 16-24 year olds, among whom there was an increase from 36% to 41%

among men and from 32% to 37% among women. The overall mean number of units consumed weekly also declined from 20.3 to 18.0 among men, and from 9.1 to 8.6 among women, between 2003 and 2008 (though these changes are not statistically significant). These declines were again seen across all age-groups except the youngest, 16-24 years, where there was an increase in the mean for both men and women - a finding that is noticeably out-of-sync with the broader British trends described above. Given that the change to the methodology for calculating units consumed tends to increase the estimates of alcohol consumption, the apparent general declines among both men and women over this period may even be more pronounced.

#### *Harmful drinking:*

In addition to describing the patterns of 'sensible' drinking as above, it is of interest to explore the levels of so-called 'harmful drinking', usually defined as exceeding 50 units per week for men and exceeding 30 units per week for women, as well as 'heavy' or 'binge drinking' which is usually defined as consuming more than twice the recommended amount on any particular day.

Data from GLF for Great Britain as a whole show that among men 21% reported drinking heavily (more than eight units on at least one day in the previous week) in 2008 compared to 14% of women (more than six units on at least one day in the previous week). There was little change between 1998 and 2004 in the proportion of men drinking heavily, but since 2004 this proportion has fallen, and using the revised methodology seems to be continuing to decline. There appears to be a similar downward trend in the proportion of women drinking heavily. Again, the most pronounced changes have occurred among the youngest age-group of men and women. Between 2000 and 2006, the proportion reporting 'heavy' drinking fell from 37% to 27% among men and from 27% to 20% among women. Though recent data for 2007 and 2008 suggest a continuing downward trend, numbers are small and it is too soon to tell whether the trend will be sustained.

The SHes has also administered the CAGE questionnaire (Mayfield, McLeod and Hall, 1974) to participants aged 16 and over; a tool that was self-completed and designed to highlight up to six indicators of problem drinking, including three indicators of physical dependency on alcohol. In 1998, 12% of men and 5% of

women reported two or more indicators of potential problem drinking. In 2003, these figures were 13% and 7% and in 2008, 16% and 11% respectively. This apparent increase in the proportion of people with drinking problems is a cause for concern, particularly among women and younger people where the increase has been greatest, and warrants further investigation.

*Teenage drinking:*

Teenage drinking patterns also suggest that the gap between males and females in both the proportion of people who drink alcohol, and the volume of alcohol consumed by drinkers, is closing. In 2004 in England, among both boys and girls aged 11 to 15, 23% drank alcohol in the previous week, whereas before 2004 the percentage had been higher for boys than girls. There is also evidence that the volume of alcohol consumed regularly among teenage drinkers is rising more steeply among teenage girls than teenage boys in England (NHS Scotland 2008b). The Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) 2008 found that girls aged 15 were slightly more likely than boys to report ever having an alcoholic drink - 83% compared to 80%. However, there was no sex difference in the proportions who reported having alcohol in the past week (a little over 30% in both sexes), and there has been a steady decline in the proportion of teenagers drinking since 2002, when girls were more likely than boys to be regular consumers of alcohol.

## **HEALTH: Autonomy indicators**

None of the EMF core quantitative indicators directly relate to autonomy. We discuss issues of autonomy in the Discussion section below.

## **Cross-over themes and vulnerable groups**

Important intersections are evident between sex/gender and most or all of the other equality strands, though evidence is limited in most areas. While we show below that sex and gender interact in complex ways to undermine the capabilities of *both* men and women to live long and healthy lives, it is women who, by-and-large, stand out as experiencing particular vulnerabilities when we explore intersections with other axes of inequality.

The social construction of gender roles, responsibilities and expectations are often closely tied to ethnic identities, and women's norms of behaviour in particular are often taken as symbols of ethnic group inclusion and exclusion (both by those within and outside of particular ethnic groups). Therefore, it is not surprising that gendered patterns of health-related behaviour, as well as gendered health experiences and outcomes, vary between ethnic groups. This is illustrated in some of the indicators presented in Chapter 7 on ethnicity - for instance patterns of smoking across sex vary importantly between ethnic groups. That said, some sex differences are seen across all ethnic groups - such as women's disadvantaged position in relation to healthy levels of physical activity. There is evidence that some sex patterns of health service use differ across ethnic groups while others are similar (Doyal, et al. 2003). Also, while women in general may feel poorly respected within the healthcare system, this is a particular issue for some minority ethnic women (Bharj and Salway 2008). Importantly also, the more constrained access to material and social resources that women face in comparison to men may be particularly extreme for women from some minority ethnic groups. Platt et al. (2008) have described the varied household structures across ethnic groups and the co-incidence of ill-health, caring and childcare that occurs within many Bangladeshi and Pakistani households with consequent heavy workloads and potential isolation for women. Aspinall and Watters (2010) have highlighted the vulnerability of refugee and asylum seeker women to domestic violence arising from a lack of family and community support.

Parry et al. (2007) have noted the high levels of psychosocial stress and mental ill-health experienced by Gypsy and Traveller women. The interplay of gendered and ethnic identities in relation to health experiences and outcomes are clearly important but have not to-date been well articulated even in research that has focused on a concern with gender issues (Doyal et al., 2003).

Older women, particularly those from some minority ethnic groups, experience higher levels of long-term limiting illness than men. However, there are areas where older men may also lose out, for instance in their relative lack of social support and greater isolation (Sixsmith and Boneham, 2002).

As shown in Chapter 5 on Disability, the healthcare experiences and health outcomes of learning disabled people are poor. Clearly, the particular issues faced by learning disabled people will vary according to their sex/gender. For instance, there is evidence that learning disabled women have very low uptake of cervical screening (Disability Rights Commission; Wood and Douglas 2007). It is likely also that the way in which services respond to the needs of these patients will be shaped by sex/gender as well as disability-related issues, though there has been little detailed exploration of these inter-sections to-date.

There are complex intersections between sex/gender related inequalities and those that relate to sexuality. A number of health concerns are highlighted in Chapter 6 on LGB issues, including: high rates of STIs, including syphilis and gonorrhoea, in MSM and low uptake of cervical screening among lesbian women. It is also suggested that the higher levels of suicide among young men may be linked to the vulnerability of young gay men. The healthcare experiences of lesbian and gay patients are likely to be influenced both by their gender identity and their sexuality. However, the ways in which sex and gender inter-relate with sexuality to produce differential experiences and outcomes require further investigation. There are also likely to be intersections between gender and transgender in relation to health outcomes, service design and delivery, though these have to-date been little explored.

## Discussion

### **What are the inequalities? How persistent and how worrying are they?**

Though men and women share many health risks, there are some marked differences between men and women in their patterns of morbidity and mortality.

Life expectancy at birth has been steadily rising for males and females over the past 25-30 years and the gap between males and females has declined over time.

Nevertheless, female advantage persists across all countries of Great Britain.

The leading causes of death are the same for men and for women across all three countries, though age-patterns of onset differ and men's mortality rates are higher overall.

The high suicide rates among young men in Britain, particularly in Scotland, are a persistent concern, though recent evidence does suggest some decline.

While the level of maternal mortality is not an issue of concern in the general population, maternal mortality among minority ethnic and migrant women is worryingly high.

Sex differences in morbidity are complex and often difficult to interpret. General measures of poor health are affected by the fact that men and women may assess and report their health differently. However, self-reported measures of general health suggest moderately higher levels of ill-health among women than men.

Overall prevalence of mental illness does not vary significantly between women and men, but clear sex differences are found in specific disorders. For men, there are particular concerns around the under-diagnosis and lack of treatment for mental health problems which are believed to account, at least in part, for the much higher risk to men of: becoming homeless, being imprisoned, becoming drug dependent and being involved in violence. For women, there are particular concerns around the

high levels of domestic and sexual violence and its links to poor mental and physical health.

## **Are there any emerging trends?**

We have presented trend data above under each indicator where they are available. Here we highlight a number of the issues that are currently gaining attention.

There have been sweeping changes in women's and men's lives in past twenty to thirty years. However, it is clear that there is no unidirectional movement towards more egalitarian inter-personal relationships and more equal opportunities and outcomes for women. While there is evidence that women have increasing choice and control over some aspects of their lives, this has brought with it new health risks as reflected in the higher rates of smoking and problematic alcohol consumption among younger women. At the same time persistence of gendered inequalities in power, particularly within intimate relationships, is reflected in domestic violence with the concomitant adverse health impact which falls disproportionately on women (Doyal 2001, Kershaw, Nicholas and Walker 2008). For men too, societal changes have brought both positive and negative health consequences.

Changing expectations have brought to the fore new concerns about aspects of men's lives that were previously largely unchallenged - such as men's involvement in their children's lives and the implications of this for their own health and wellbeing (as well as for their children's development).

Demographic changes bring new gender issues into focus, particularly the ageing population and older women's health issues and increasing migration and diversity and the vulnerabilities of migrant women.

## **What are the causes?**

Patterns of morbidity and mortality among men and women are shaped by a complex array of factors relating to both their biological sex and their socio-cultural gender. We highlight below some of the main processes - operating at individual,

family, health system and wider societal levels - that appear to impact upon men's and women's health and healthcare experiences differentially, though evidence is patchy in some areas.

### ***Biological sex differences***

It is self evident that biological differences account for some of the differences in disease patterns between men and women and therefore contribute to the observed differences in health outcomes described above. Anatomical differences result in sex-specific conditions such as prostate cancer and cervical cancer which are significant causes of morbidity and mortality for males and females respectively. The burden of reproductive ill-health falls overwhelmingly on women. Sex-specific physiological differences also provide explanation for differences in prevalence rates and patterns of several other diseases. Oestrogen is particularly important in this respect. It contributes substantially to the differences in breast cancer rates in men and women and plays a role in the prevalence patterns of IHD and osteoporosis in women, both of which rise sharply in the post-menopausal period. However, this is only one component in a multifactorial interaction between sex and disease. There is mounting evidence that biological differences extend far beyond the reproductive realm; a wide range of other genetic, metabolic and hormonal differences are increasingly considered to contribute to differences in the incidence, symptoms and prognosis of many other health problems (Doyal, 2001; Doyal et al., 2003; Wizemann and Pardue 2001). There is also evidence of complex inter-play between risk factors for disease and the biological and social contexts of women's and men's lives. For instance, being obese seems to increase the risk of CVD more for women than for men (Doyal et al., 2003).

While biological differences clearly contribute to the different health experiences and outcomes of men and women, the socio-cultural construction of femininities and masculinities also account for a substantial proportion of the inequalities observed in life and health. They do so in a multitude of complex and interrelated ways impacting on: health expectations; access to health-promoting resources; health-related risk behaviours; perceptions of health and illness; health-seeking behaviours; engagement with and uptake of health services; and the design and delivery of those healthcare facilities.



### ***Gendered norms and expectations: roles, responsibilities and risks***

Sociocultural constructions of masculinity and femininity are reflected in: individuals' subjective identity (the gendered self); the social and economic roles that are designated as 'feminine' and 'masculine' and the values assigned to these; and expected and approved 'male' and 'female' behaviours. Though the variations across time and space, as well as by age, ethnicity, social class and so on, should not be downplayed, there are some common elements in the ways that femininity and masculinity are constructed, and these can have significant implications for the health risks and responses that men and women experience. Broadly speaking, at the individual level, the implications of men's and women's gendered roles and identities can be seen to impact upon health via (1) their access to resources that promote health, and (ii) the 'ways of being and doing' that are associated with being a man or a woman that affect exposure to health risks and responses to ill-health. We discuss the differential access to socioeconomic resources below. In this section we are concerned with how masculinity and femininity impact upon health via four inter-related areas: the sex division of labour; orientations towards health and illness; communication and social support; and risk-taking.

In most families in Great Britain, women shoulder a disproportionate burden of domestic work, caring and childcare responsibility. There is evidence to suggest that this work impacts negatively upon women's health via: stress and exhaustion; greater risk of unhealthy lifestyle behaviours (such as reduced opportunities to engage in physical exercise); and reduced uptake of health services due to problems such as transport difficulties and caring responsibilities leading to missed appointments and non-adherence to treatment (Doyal et al., 2003).

In contrast, men still predominantly hold the breadwinner role within families and work outside the home with consequent exposure to a different range of potential health risks than women. Of course, men's and women's patterns of work have changed considerably in recent decades, with a growing proportion of women entering the labour force. Nevertheless, significant differences persist in the types of occupation that men and women have meaning differential exposure to occupational health risks. These occupational differences are reflected in the higher mortality

among men from accidental causes, though, as Doyal et al. (2003) point out, the occupational health hazards of women have rarely been explored in any detail. Men are also more likely to work full-time than women and to work very long hours, with associated work-related stress that can impact negatively on physical and mental health (Wilkins, 2010). Furthermore, while women are increasingly sharing the income-earning role with men, evidence suggests that there has been less of a shift in domestic responsibilities so that many working women experience extremely heavy workloads (Treas and Drobnič 2010).

It is increasingly recognised that men and women tend to differ in their orientations towards health and illness - that is, in their expectations regarding what it means to be healthy and how they perceive and respond to signs of ill-health. Courtenay, (1998, 2000, 2009) drawing on his experience of researching men's health in the US, suggests that a man who 'does gender correctly' would not pay much attention to his health and well-being; would see himself as physically and emotionally stronger than most women; would think of himself as independent and self-reliant, rarely calling on others for help; and would face danger fearlessly and frequently take risks.

Men are also characterised as having poor communication and emotional expression, weaker social support structures than women, being encouraged to look outside rather than inside themselves, having greater physicality and aggression than women, and being discouraged from showing weakness or seeking help (Wilkins, 2010). Sixsmith and Boneham's (2002) qualitative study in Bolton clearly illustrated many of these themes. They found that men in the study: showed mistrust even of close friends; saw community centres and health-related activities as female space; considered ill-health as a private matter to be endured rather than shared with others; experienced illness and incapacity as an attack on manhood and mental illness as a particular weakness. The HSE 2000 and 2005 also documented men's lower levels of social support from family and friends in comparison to women (Scholes 2007).

These male characteristics are argued to be linked to poorer engagement with health services, particularly preventive and primary care services (discussed more below) and harmful coping mechanisms including use of tobacco, smoking, alcohol and other drugs (Wilkins, 2010). Further, it is suggested that these characteristics are

reflected in greater levels of undiagnosed mental health problems among men and result in other manifestations of social exclusion:

*“Men’s undiagnosed mental health difficulties may also be reflected in their higher risk, compared with women, of experiencing other problems. For example, more men are imprisoned each year, men are more likely to be homeless, more men have problems with drugs and alcohol, and more boys than girls are excluded from school. These figures may represent a wide range of ways in which male mental health problems are expressed and also their needs are not met.” (pg. 51).*

A further related way in which men's gendered identity can impact negatively upon health is via risk-taking, or the so-called 'pressure of masculinity'. Doyal (2001) comments:

*"Though the shape of masculinity may vary between communities, the development and maintenance of a heterosexual male identity usually requires the taking of risks that are seriously hazardous to health" (p162)*

The patterns of mortality from accidents and violence illustrated above demonstrate the greater risks that men tend to be exposed to in comparison to women.

Notwithstanding these significant patterns, it is important to acknowledge that gendered norms and behaviours are not fixed over time and that there may be large variations within the population, particularly along class and ethnic lines. Sixsmith and Boneham (2002) found important differences between younger and older men in their study, with older men being more likely to exemplify the masculine stereotype described above. Research with Pakistani women has revealed high levels of stoicism and a 'culture of silence' around ill-health, traits that might be considered 'masculine' in other cultural contexts. Salway et al.'s study of people living with long-term health conditions found that levels of social support were particularly low among Black African women (Salway, et al. 2007). Furthermore, changing patterns of smoking and alcohol use among women in recent decades clearly illustrate the fluidity of acceptable 'male' and 'female' behaviour. Thus, while male and female attitudes and behaviours may diverge in important ways, they are also emergent and contextually contingent (Frosh and Phoenix 2002, Sabo 1999). This suggests that

the health sector should not only be sensitive to, but actively work to challenge gendered norms, attitudes and behaviours that are detrimental to health. Presenting gender as immutable and problematic can constrain the options for individuals and the wider health system to work towards better health outcomes (Greene and Biddlecom 2000) .

### ***Socioeconomic status and deprivation***

It has been argued that a focus on gender roles and norms of behaviour can lead to a down-playing of the relational nature of gender and the persistent inequality between men and women in their access to material and social resources and status; the so-called 'patriarchal dividend'. Furthermore, since men tend to be better endowed with social and economic resources than women, the broad inequalities in life and health status between men and women do not, at first sight, appear to be explained by socioeconomic inequalities.

Nevertheless, there is evidence to suggest that gendered inequalities in access to material resources (as well as social status) do contribute to poor health and well-being among women (Doyal, 2001), and therefore that action to improve women's socioeconomic position relative to men would likely result in health gains for women. This may be particularly true for single women, particularly those who are divorced and caring for children, as well as those who are older and widowed. It is also true for women who lack control over material resources within their households. Patterns are, however, complex across different indicators.

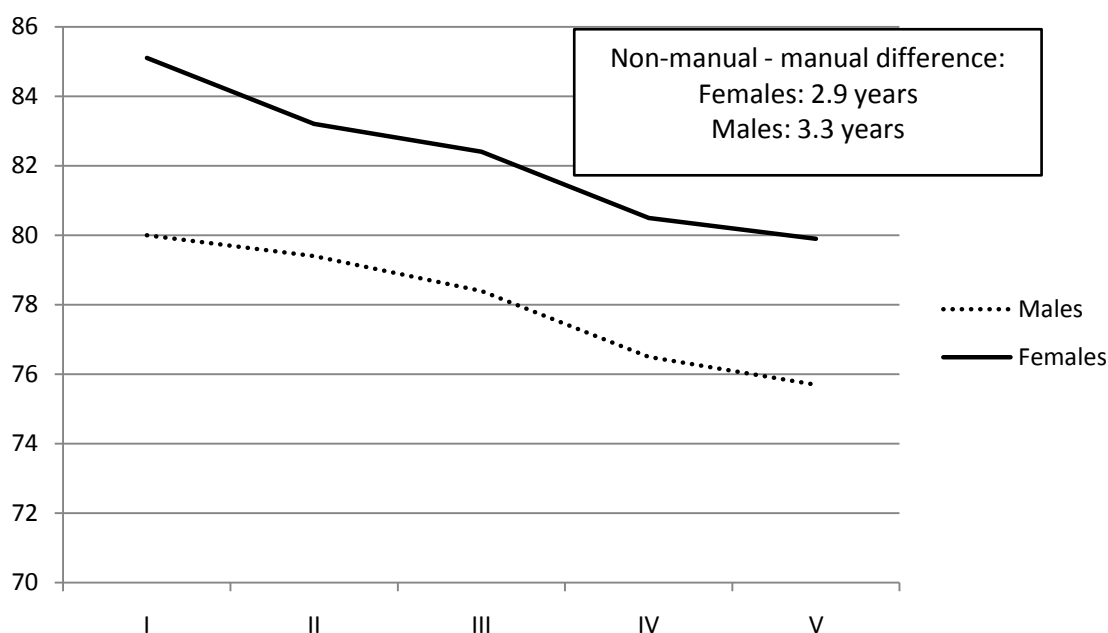
Looking first at mortality, life expectancy at birth (and at older ages) is found to decline steadily with decreasing social class for both men and women, though the difference between the highest and lowest social class is greater for men than for women (



Figure 33).



Figure 33: Life expectancy at birth (years) by social class and sex, England & Wales, 2002-5



Source: Office for National Statistics, Longitudinal Study.

The relationship between area deprivation and suicide rate has also been shown to be stronger among men than among women (Brock et al. 2006). Using data for England & Wales from 1999-2003, Brock et al. found that the difference between the most affluent deprivation twentieth and most deprived was 13.5 per 100,000 for men compared to 3.8 per 100,000 for women; representing relative risks of 2.13 and 2.06 respectively.

Nevertheless, poor socioeconomic conditions clearly increase the risk of premature death for women. Since its inception the Confidential Enquiry into Maternal and Child Health has consistently found evidence of the serious effects of socioeconomic deprivation on women's potential for long and healthy life. In 2004, CEMACH reported that women living in families where both partners were unemployed, many of whom had features of social exclusion, were up to twenty times more likely to die from a maternity-related cause than women from the more advantaged groups. Single mothers were three times more likely to die than those in stable relationships. Area-level effects were also evident, with women living in the most deprived areas of England having a 45% higher death rate compared to women living in the most affluent areas (Lewis 2004).



Turning now to indicators of health and morbidity, a wide range of both qualitative and quantitative work has illustrated how low socioeconomic position and constrained access to material resources compromises women's health and well-being, operating via a number of causal pathways including: poor diet, poor living conditions, high levels of psychosocial stress, harmful behaviours including smoking and drug use, and poorer access to preventative and curative health services (Doyal, 2001).

Self-reported measures of general ill-health and LLTI show fairly similar patterns across measures of socioeconomic status among men and among women in Great Britain, though there is evidence in some studies that men's health may be more strongly associated with socioeconomic circumstances than women's. The SHeS 2008 found that, compared to the highest household income quintile, the odds ratio of reporting bad/very bad health among the lowest quintile was eight times higher among men compared to two and a half times higher among women (SHeS, 2008). It is important to recognise, however, that absolute and relative differences may show quite different patterns across the sexes, and have different implications. For instance, HSE data for 2006-8 reported at the Poverty Site show that the proportion of men with a GHQ12 score of four or more (i.e. probable common mental disorder) was 7% in the richest income quintile group and 20% in the poorest. This represents a difference of 13% and a relative risk of 2.9. For women, these figures were 10% and 24%, meaning a larger difference than for men, at 14%, but a smaller relative risk at 2.4.

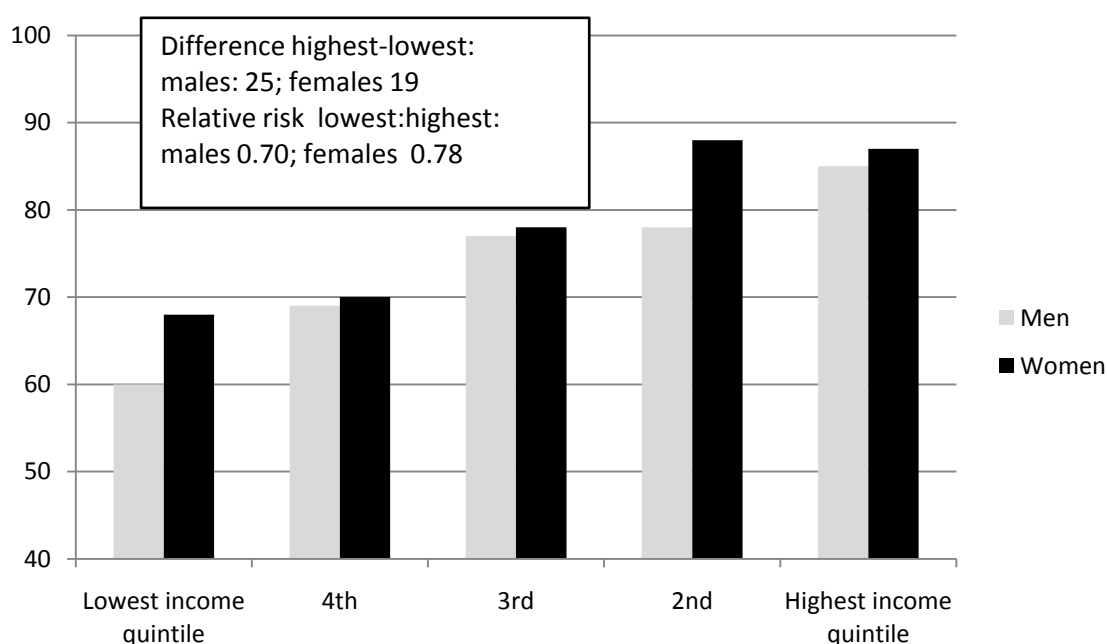
Watt et al. (2009) used data from the longitudinal British Women's Heart and Health Study and found that among older women, healthful eating and physical activity were positively associated with both current and childhood socioeconomic status. Further analysis, reported separately, illustrated the independent effects of both individual socioeconomic status and area-level deprivation on healthy eating, exercise and smoking (Amuzu et al. 2009).

A recent qualitative study in South Wales took a detailed look at the health of 65 women (Charles and Walters, 2007). The study found that the most frequently mentioned health problems were tiredness, stress, headaches and arthritis and the most frequently mentioned social problem was worrying about money. Women in the

study felt that their health concerns were linked to other problems such as unemployment, juggling childcare and work, and money worries, creating further stress. The authors argue that such psychosocial stress exacerbated ill-health directly as well as encouraging smoking and drinking as a way of coping.

Survey data also provide evidence that poor socioeconomic conditions are associated with some life-style related health risks for both sexes, but that the relationships vary somewhat between men and women. For instance, in England, the positive association between income and not smoking is seen for both men and women, but is somewhat stronger for men, when the highest and the lowest income quintiles are compared (Figure 34).

Figure 34: Percentage of adults *not* currently smoking by income quintile and sex, England, 2007



Source: Health Survey for England, 2007

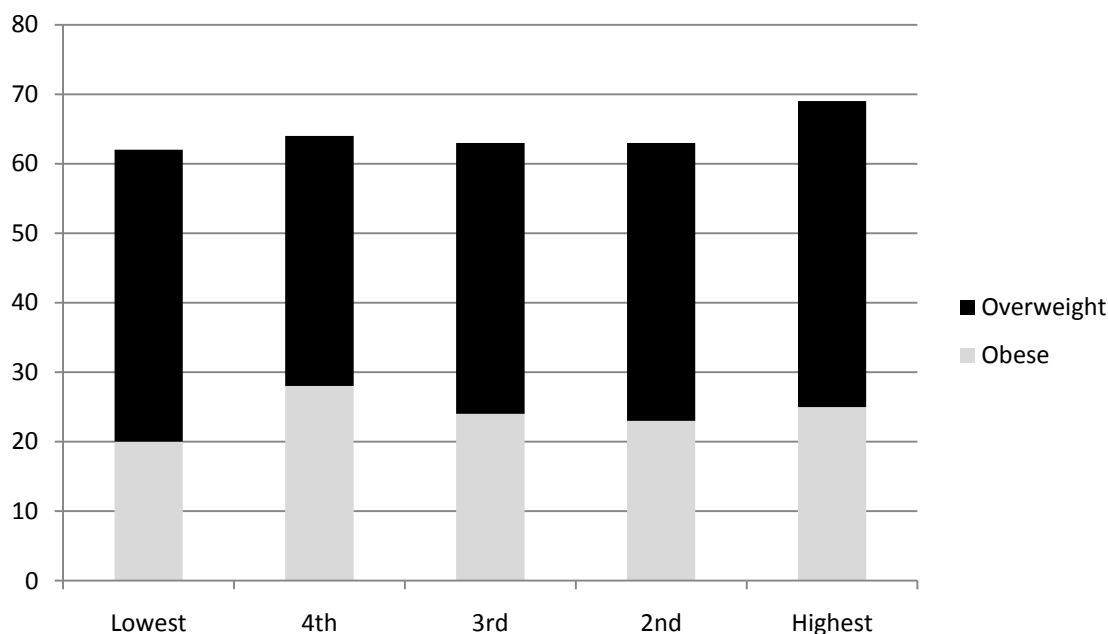
Similarly, proportions reporting consumption of the recommended '5 a day' portions of fruit and vegetables vary more between the highest and the lowest income quintiles among men (34% versus 20%) than among women (36% versus 25%) (NatCen 2009), though the difference is clearly evident for both sexes.

Patterns of alcohol use also seem to vary between the sexes according to social class. For men, there appears to be a positive association between drinking above

government guidelines and income, so that better off men are more likely to report both drinking over the guidelines and 'heavy drinking' (more than twice the guideline). For women, the pattern is less clear, women in the higher income quintiles seem more likely to drink over the guidelines than those in the lower income quintiles, but no more likely to drink 'heavily' (that is to drink more than twice the guideline amount) (NatCen 2009).

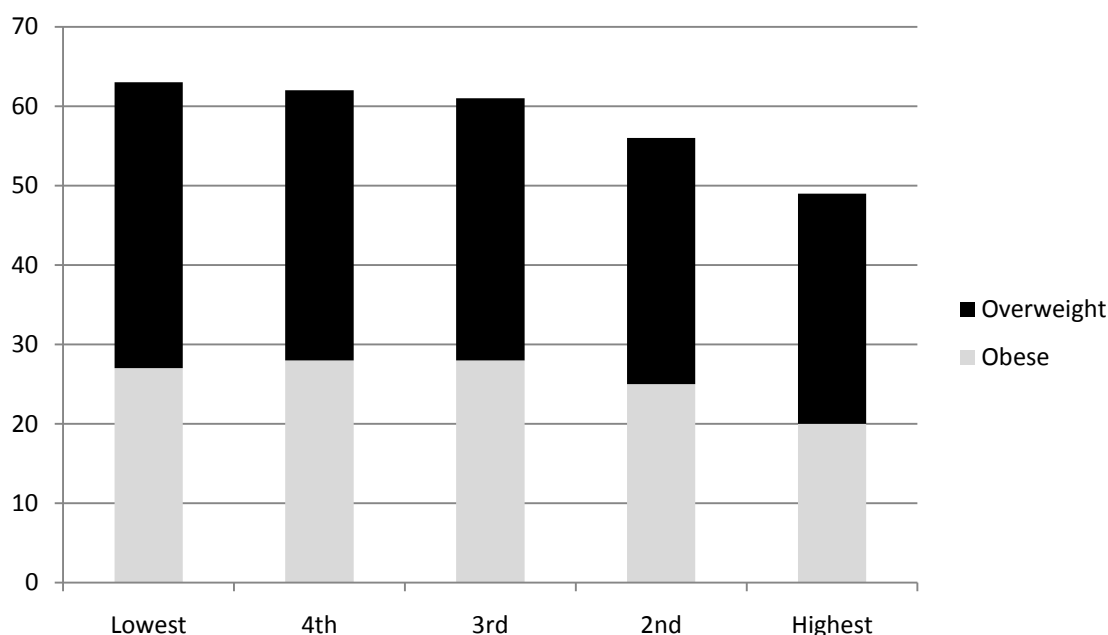
Patterns of obesity and overweight also show some important differences by social class between women and men. The Health Survey for England 2008 data are presented in Figure 35 and Figure 36 below. Whereas for men, the proportion who are either overweight or obese is highest in the richest quintile, among women there is a declining trend of overweight and obesity with increasing income. Sixty three per cent of women in the lowest income quintile were either obese or overweight compared to 49% in the highest quintile; while 62% of men in the lowest income quintile were obese or overweight compared to 69% of those in the highest quintile. Raised waist circumference, an alternative measure of obesity, shows the same pattern (NatCen 2009).

Figure 35: Proportion of men classified as obese and overweight, by equivalised household income quintile, England, 2008



Source: Health Survey for England, 2008  
 Note: Obese: BMI 30kg/m<sup>2</sup> or more; overweight: BMI 25 to less than 30 kg/m<sup>2</sup>

Figure 36: Proportion of women classified as obese and overweight, by equivalised household income quintile, England, 2008



Source: Health Survey for England, 2008

Note: Obese: BMI 30kg/m<sup>2</sup> or more; overweight: BMI 25 to less than 30 kg/m<sup>2</sup>

Interestingly, data for the health survey of Wales (WES, 2008) are not all routinely presented in sex-disaggregated form so that the same comparisons are not readily available (though could be produced from the archived data relatively easily). Data for Scotland are presented in Chapter 11 on social class and again show some important differences in socioeconomic patterns in lifestyle indicators between men and women.

The message from the above evidence seems to be that women's health is undermined by their poorer socioeconomic status relative to men's but that the causal pathways are complex and not necessarily the same as those operating for poor and disadvantaged men. Clearly, interventions aimed at promoting men's and women's health will need to be sensitive to these complexities.

### ***Design and delivery of healthcare***

We turn now to consider the role of the health system and whether the ways in which health services are designed and delivered may undermine men's and women's capabilities for health and life. Timely access to appropriate and effective healthcare – such as cancer screening programmes or heart surgery – can and should have an important impact on the health of men and women. We look first at health policy and broader strategy which defines the priorities for the health service to see whether and how sex/gender has been considered. We then explore the evidence relating to service access and utilization and healthcare outcomes among men and women. Finally, we consider the extent to which health services are gender sensitive and result in positive experiences for male and female patients, since where experiences are poor they may suggest sub-optimal care and unacceptable treatment.

#### Health policy and strategy:

Recent years have witnessed increased attention to the role of gender in shaping men's and women's health both nationally and internationally (Doyal et al., 2003; WHO, 1998). Furthermore, while women's health needs have been highlighted and lobbied for over several decades, there is a growing focus on the need for health policy and practice to better understand and address gendered influences on men's health and well-being (Sabo, 1999). It is still early days, however, and progress towards mainstreaming such gender sensitivity remains limited.

Doyal et al., in their 2003 review for the Equal Opportunities Commission, found that although an equalities agenda had been in evidence running alongside the modernisation agenda in UK health policy, *'a detailed review of policies reveals that in practical terms, sex and gender concerns have received very little attention. While there is some recognition of 'special needs' for women, such as family planning or breast screening, there appears to be little or no recognition of the need for gender sensitivity in mainstream services'* (p3).

Since the time of Doyal et al.'s review, there have been some significant developments, in particular the Equality Act 2006, which should provide significant additional ammunition towards achieving gender sensitive policies and practices.

The 2008 Gender and Access to Health Services Report (MHF, 2008) commented that:

*“It will no longer be enough simply to say that the services are there to be used on a population-wide basis and that if men and women use them in disproportionate measure then that is not the business of the service provider. Nor will it be enough to wait until someone complains. Where it is probable that inequitable use of services is resulting in unequal outcomes between men and women, it is the statutory responsibility of the service-providing authority to examine the service and to adjust it towards achieving a better balance.”* (pp 9)

Nevertheless, this 2008 report (MHF, 2008) came to many of the same conclusions as the earlier review by Doyal et al. (2003), suggesting that attention to gender issues within UK health policy is still partial and piecemeal. At a general level the review was critical of the way in which the predominant focus on socioeconomic dimensions of health inequalities (and particularly the use of area-based measures) serves to conceal patterns of, and solutions to, gender inequalities in health. The report recommended that Public Service Agreements and targets set in relation to health inequalities should explicitly refer to gaps in health outcomes between men and women in conjunction with disparities between the least well off and the rest of the population.

Looking at policy in relation to specific areas of service development and delivery, various National Service Frameworks have also been scrutinised for their degree of gender awareness and sensitivity. Doyal et al. (2003) highlighted the lack of explicit attention to sex and gender within the National Service Framework for Coronary Heart Disease (Department of Health 2000) despite the extensive evidence of differences between men and women in patterns of disease and healthcare responses, experiences and outcomes. The more recent report from MHF (2008) concluded that these differences have not been addressed by more recent policy statements and that current policies aimed at reducing the risk factors contributing to IHD mortality and ensuring standards of clinical care for IHD patients remain largely gender blind. For instance, the report notes that guidance for primary care trusts on meeting targets on smoking cessation do not consider gendered needs in any detail (women are only discussed separately in relation to pregnancy), despite the fact that

research indicates key differences between women and men in the importance of the timing of a quit attempt, the role of social support and the value of nicotine replacement therapies (MHF, 2008). It may even be the case that strategies laid out in the NSF could exacerbate gender inequalities. For instance, screening of patients through primary care health checks may benefit men disproportionately since women are more likely to have undetected symptoms and 'abnormal' presentation than men (Doyal et al., 2003).

Doyal et al. (2003) identify mental health as a policy area where there has been greater attention to gender issues, as illustrated in the 1999 NSF for Mental Health and the subsequent document *Women's Mental Health: Into the Mainstream* (DH, 2002). These policy documents explored the specific mental health needs of women in relation to pregnancy, violence and abuse as well as the needs of particular sub-groups of women. However, there is evidence that strategic directives are being enacted only slowly across practice settings and that there are significant delays in embedding these in service provision. For instance, the importance of providing single sex accommodation in psychiatric (as well as other) health facilities has been acknowledged for a long time but progress towards achievement is slow. Women in mixed psychiatric wards experience a number of problems including harassment, risk of sexual and physical abuse and the stress of feeling unsafe. The NIMHE expert briefing (NIMHE 2003) found examples across England where women-only and women-sensitive services had been introduced, often in the voluntary sector, but also reported significant gaps in provision. Other reviews also suggest that developments in gender-specific service provision remain patchy, variable and vulnerable, despite some significant advances in recognising women's special needs. Significant gaps in personalised services continue to exist, in particular for women from minority ethnic groups (National Mental Health Development Unit 2010);MHF, 2008.

Doyal et al. (2003) concluded that though mental health policy showed some positive signs in terms of gender awareness and sensitivity it continued to suffer from (i) a focus on particular groups of women perceived to have particular needs, and (ii) a lack of attention to men. In this way, existing policy approaches, even in the field of mental health, still fall far short of genuinely mainstreaming attention to gender.

*"gender concerns will need to be more fully integrated into mainstream service delivery if real change is to be achieved"* (Doyal et al. 2003: 37)

Thus, though there are some positive indications that health policy in Great Britain is making progress towards this goal (for instance the publication of *Improving Gender Practice in NHS Scotland* (NHS Scotland 2008a), there is clearly much work to be done.

Access and uptake of health services:

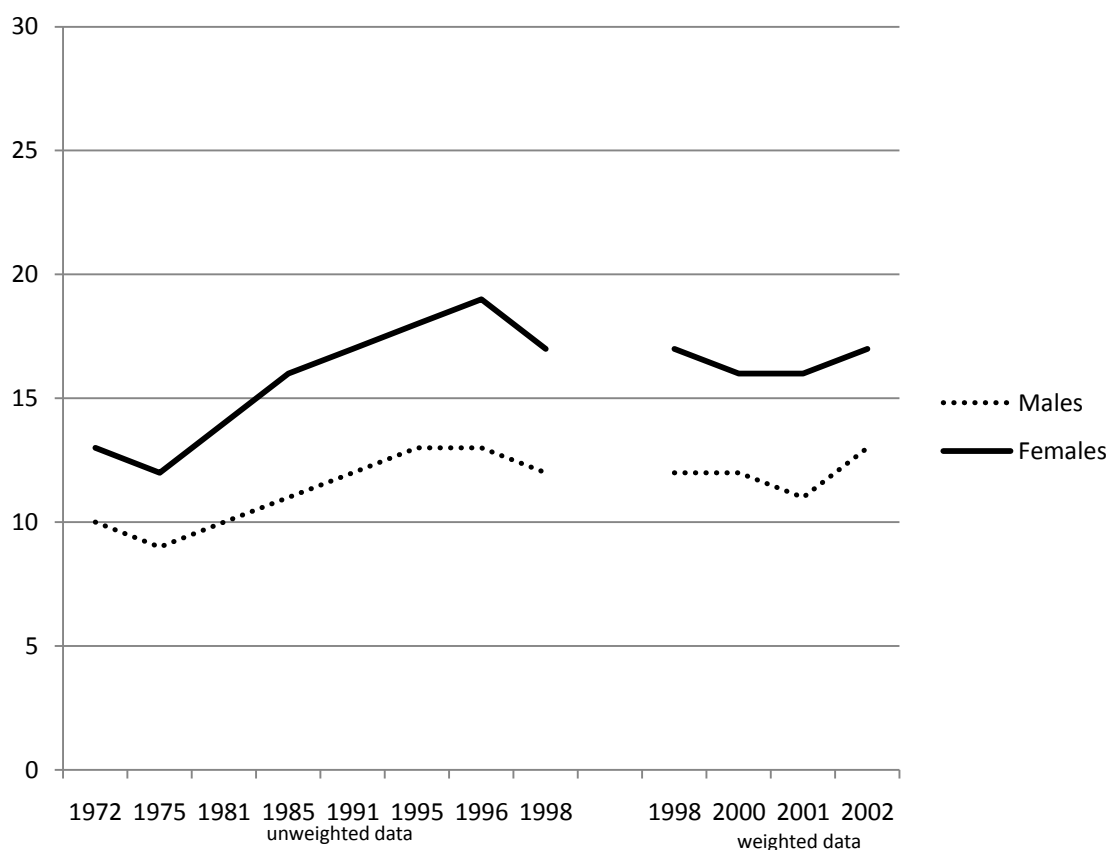
Clearly, health-seeking behaviours and the uptake of services result from a complex inter-play between: individual perceptions, knowledge and preferences; the way in which services are provided and promoted; and wider factors at individual, family and societal level that may constrain or support timely and appropriate healthcare use.

*Primary care use*

Surveys consistently show that women are more likely to receive care from primary care services than men. Data from the General Household Survey for 1972 to 2002 show that over that period the proportion of people who reported consulting their GP in the 14 days prior to interview increased among both men and women by three to four percentage points, but that women are consistently more likely to report GP consultation than men over time (Figure 37), and that these patterns hold across age-groups. Recent analyses using the QResearch general practice database confirm that consultation rates have risen between 1995 and 2008 and that women's consultation rates exceed those of men at all ages except the oldest age-group (Hippisley-Cox 2009). The latest GLF survey data for 2008 report that females had an average of five NHS GP consultations per year whereas males had four (Ali, Curtis and Bugler 2010).



Figure 37: Trends in consultations with an NHS GP in the 14 days before interview by sex and age: 1972 to 2002, Great Britain



Source: General Household Survey of Great Britain, Living in Britain 2002, published 2004 (<http://www.statistics.gov.uk/cci/nugget.asp?id=827>)

The slightly higher rates of consultation among women seem to reflect higher levels of demand rather than differential access *per se*. Indeed, available evidence suggests that when men seek access to GP services they are no more likely to face problems than women. For instance, a recent postal survey asked 543,246 GP patients in Scotland about two aspects of access to their GP practice and found no evidence of gender differences. When asked whether, in the last year, they had been able to obtain a consultation with an appropriate health professional within 2 working days, 93% females and 91% males answered 'yes'. When asked whether, in the last year, they had been able to book an appointment with a GP more than 2 days ahead, 79% of females and 82% of males answered 'yes' (Scottish Government 2009b).

Similarly, the GP Patient Survey of 2006/7 in England found that overall 87% of men and 86% of women responded 'yes' to the question '*In general, are you satisfied with how easy it is to get through to someone on the phone at your doctor's surgery?*'.

Similarly, 86% of both men and women answered 'yes' to '*Think about the last time you tried to get an appointment with a doctor fairly quickly. Were you able to get the appointment on the same day or on the next 2 days the surgery was open?*', and 77% of men and 74% of women responded 'yes' to '*Last time you wanted to, were you able to get an appointment with a doctor more than 2 full days in advance?*' (Department of Health 2007a).

Evidence from a variety of sources also suggests that the differential uptake of primary healthcare services is partly explained by men's own attitudes and behaviours, including their greater tendency to ignore symptoms and delay treatment or to 'self-medicate' (with potentially harmful consequences) (Wilkins, 2010).

These processes are in evidence in the patterns of uptake of preventive and primary care services relating to CVD and cancer. For instance, there is evidence from varied sources that men are less likely than women to take up screening. For instance, the evaluation of phase 2 of the National bowel cancer screening programme in England found lower rates of uptake in men than women (47.7% versus 56.2%) (Weller, et al. 2006). Men have also been found to delay seeking medical attention in response to signs and symptoms of lung cancer (Tod, Craven and Allmark 2008). Evidence suggests that women are more likely than men to be treated for overweight or obesity in primary care. A study by Counterweight (Laws 2004) reports that, in addition to being more likely than men to receive diet counselling, dietetic or obesity centre referral, women were also significantly more likely than men to be prescribed the weight loss drug, orlistat. There is limited data on exercise referral schemes but indications are that while more women are referred to ERS, and more attend initial consultations, men are more likely than women to complete a 14-week course (Dugdill, Graham and McNair 2005, Gidlow et al. 2007).

It must be recognised that these differences between men and women result from a complex inter-play between individual perceptions, preferences and behaviours and the services that are on offer to women and men; and that both of these are shaped by socio-cultural constructions of masculinity and femininity.

*“... even where men and women are apparently ‘choosing’ to engage with services to a different extent from each other, the differences in uptake may, in reality, reflect*

*a lack of sensitivity to attitudinal and behavioural differences between men and women in the way that services are designed. In other words, another important cause for variations in effectiveness between men and women is that some services have been allowed to develop in such a way that they actively fail to meet the needs of one sex as well as they meet the needs of the other.” (MHF, 2008, pg9).*

Furthermore, patterns of uptake vary importantly by other factors, particularly social class and ethnicity, and it is misleading to portray men as solely disadvantaged in terms of service access. For instance, CEMACH 2007 drew attention to these mutually reinforcing risk factors drawing attention to the fact that maternal deaths continue to disproportionately affect those from the most vulnerable and excluded groups in society. They identify the fact that such women are less likely to seek antenatal care and stay in regular contact with maternity services demonstrating that services are used least by those who need them most (Lewis 2007):

*Receipt of secondary care services:*

Patterns of receipt of secondary care by sex are even more complex, and suggest disparities not just in basic indicators of access but also in quality of care and treatment outcomes. Indeed, there is evidence across a range of health services that patterns of access, uptake and treatment diverge between women and men. The patterns are, however, complex, so that both men and women appear to be disadvantaged in some arenas of healthcare. Here we summarise some of the observed inequalities that relate to the major causes of mortality and morbidity identified in the EMF above.

In relation to cardiovascular disease, there are identifiable differences in access to services for men and women in all stages of the disease trajectory and treatment management. There is indication that women receive less good care for heart disease as compared to men (Lockyer and Bury 2002). Women with heart disease are less likely than men to have risk factors measured and recorded (Hippisley-Cox et al. 2001; Raine 2000; Crilly et al. 2008) and less likely to receive secondary prevention and cardiac investigation (Crilly et al. 2008). Women are also less likely to receive intensive management including invasive investigations and revascularisation (Raine, 2000; Sproston and Primatesta; Crilly, 2008). There are also marked differences in access to cardiac rehabilitation; the proportion of men to women

referred is around 2 to 1 with particularly low referral rates in ethnic minority populations (Bethell, Lewin and Dalal 2009). There is evidence to suggest that there are gender differences in the symptomatic presentation of heart disease and in the language used to describe those symptoms with women more commonly reporting atypical symptoms (Zaman et al. 2008, Philpott et al. 2001) which may have some impact on investigation and diagnosis of disease. These factors do not, however, provide satisfactory explanation for the differences observed.

In relation to mental health services, there is evidence that men are less likely than women to be diagnosed and receive treatment for common mental disorders. In an 18 month follow up study of the National Psychiatric Morbidity Survey (NPMS), among those with symptoms of common mental disorders, more women than men were in receipt of mental health treatment – 29% of women compared with 17% of men (King, Bebbington and Nur 2003). At every level of mental illness severity more women than men receive treatment with the greatest gap being seen in the least severe categories of illness, that is among those patients with relatively minor symptoms. Women in the follow-up study were found to be much more likely than men to be in receipt of psychiatric treatment from either their GP or specialist services (King et al., 2003).

The MHF (2008) report suggests that *“gender stereotypes of depression may play a part both for health professionals and their patients, decreasing the chances that men’s problems are identified”* (pg 52).

#### *Sensitivity, appropriateness and patient experiences:*

The design and delivery of services may make them more or less attractive and accessible to men and women and may have serious implications for the ways in which men and women experience healthcare impacting upon their satisfaction and likely future engagement with services.

One issue that has received a large amount of attention relates to the provision of single-sex accommodation within hospitals. The DH report *Privacy and Dignity* (Department of Health 2007b) reported that 99% of NHS trusts stated that they provided single-sex sleeping accommodation and 97% reported that they had single-sex toilets and bathrooms. These figures do not tally well with findings from the

National NHS patient survey programme, Survey of Adult Inpatients 2008, in which 24% of patients reported that they had to share a sleeping area with patients of the opposite sex when they were first admitted to hospital (Care Quality Commission 2009).

Though women, particularly those from some minority ethnic and religious backgrounds, may find some aspects of health service provision insensitive to their needs and preferences, it seems more often to be the case that men perceive health services to be uninviting. A number of innovative service delivery approaches have been developed in recent years to overcome these problems and to take healthcare out into the places where men may feel more comfortable - such as the Playing Safely project that takes sexual health awareness and screening services to men via sports clubs and health screening programmes being run in barber shops in Bradford and elsewhere (see <http://www.menshealthforum.org.uk> ).

In addition to specific aspects of the care and facilities provided within healthcare settings, there are concerns that some patients may receive disrespectful and insensitive treatment by providers in general. The quantitative measures of 'treatment with respect and dignity' reported above reveal no systematic differences between men and women. However, other evidence suggests that women, and particularly women of minority ethnicity, may feel less respected and be more likely to receive unsatisfactory care from health professionals (Doyal et al., 2003; Bharj and Salway, 2008). These patterns relate closely to the ways in which women tend to be devalued relative to men within wider society. Doyal et al. (2003) have drawn attention to the fact that healthcare professionals are not routinely trained to be gender aware or sensitive to the needs of men and women and suggest that this is a major capacity development need within the NHS.

### ***Wider society: processes of identification and discrimination***

Greig et al. (2000) and others have argued that one of the main functions of discourses of masculinity is to naturalize men's power and women's subordination. Sociocultural constructions of masculinity and femininity not only portray men and women as inherently different, with contrasting abilities and attributes, they systematically devalue women constructing them as dependent and inferior.

Despite improvements in some aspects of women's lives, notably their access to employment opportunities, there is worrying evidence that women in Great Britain continue to suffer systemic discrimination and disadvantage. This is perhaps most evident in the persistence of high levels of violence and abuse against women within intimate relationships. High levels of self harm, anxiety and anorexia compared to men are also linked to women's vulnerable position within intimate relationships and wider society. There is evidence to suggest that the subordination of women may be particularly extreme within some sections of particular minority ethnic groups - exemplified for instance in the illegal practice of Female Genital Mutilation and so-called 'honour killings'. However, it is important to note that domestic violence is a significant issue for women across all class and ethnic groups (Meetoo and Mirza 2007) and there are no societies or cultural groups where women are treated as equals with men across the board.

### ***Exclusion from the evidence base***

Explanations for differential diagnosis and treatment between the sexes also lie in part in the body of research evidence that guides healthcare practice and the ways in which this evidence is generated. Much of the evidence that today informs 'evidence-based' clinical practice has been generated by research studies that have included only young, White men (Lee et al. 2000; Neutel and Walop, 2005) and women have too often been excluded from studies for inappropriate reasons (Doyal, 2001). The findings from studies that exclude women will not be generalisable across the sexes and may lead to less effective, or even hazardous, clinical practice. Where clinicians are aware that drugs or procedures have not been shown to be safe and effective in women as well as men, or where women fail to meet the established clinical criteria, these treatments will likely be withheld. Unlike the US and a number of other countries, there are no current guidelines regarding the inclusion of women as well as men in clinical trials in Great Britain. The Department of Health's research governance framework (Department of Health 2001/2005) includes a statement relating to the importance of research being inclusive and reflective of the diversity of the population, but this has yet to be translated into concrete guidance for researchers or those serving on scientific or ethical review panels. As well as the poor representation of women in clinical research, there has

been relatively little attention to gender issues within other types of health research, except within a relatively narrow set of issues, including reproductive health issues for women and sexual health issues among gay men. Improving the quantity and quality of research that pays attention to the role of both sex and gender in the health and healthcare experiences of men and women should be a high priority.

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