

Life

Measurement Framework Series

Briefing paper no. 5

Equality and Human Rights Commission

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First published January 2013

ISBN 978-1-84206-462-7

Equality and Human Rights Commission Research

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Acknowledgements

We are grateful for the assistance of a number of organisations that have carried out secondary analysis of administrative data:

Home Office (Crime Statistics)

National Offender Management Service (Planning and Analysis Group)

Office for National Statistics (Vital Statistics Outputs Branch)

Her Majesty's Inspectorate of Constabulary for Scotland (Performance Assessment Unit)

Scottish Government (Justice Analytical Directorate)

Scottish Government (National Records of Scotland)

Scottish Prison Service

Summary

Life

This briefing paper sets out the available information on the indicators relating to the Life domain in the EHRC's Measurement Framework. As this domain includes measures that have been of public concern for some time, some of the data are already known. In other cases, the data are publicly available, but may have not been previously extracted or commented upon. Some of the data are available over a period of ten years or more: these provide a picture of change over time.

All the data in this domain are drawn from administrative datasets. The groups with characteristics that are protected under the Equality Act and that are included in all the datasets are gender and age. In some cases, ethnicity is also available, and occasionally socio-economic classification. Data are often only available for England and Wales combined, with separate data for Scotland.

There are four indicators for adults in this domain:

1. Life expectancy
2. Homicide
3. Other specific-cause mortality rates
4. Death rates from non-natural causes for people resident and / or detained in public and private institutions

The children's indicators also include:

5. Preventable deaths of children and young people

Key findings

- Life expectancy continues to increase for women and men. Period life expectancy at birth in Great Britain increased for women from 77 years in 1985 to 82 in 2010; for men it increased from 72 to 79 years.
- While homicide rates are higher for men than women, rates for men have reduced over the past ten years.
- In each of the ten years from 2001-02 to 2010-11, Black adults and children had higher homicide rates than other ethnic groups. However, the estimated rate for Black adults decreased by half over this period.

- In England and Wales, rates of homicide due to knife and gun crime were higher for Black victims, but rates for the Black group fell over the ten-year period.
- Men have higher age-standardised rates of mortality from cardio-vascular diseases and cancer than women. This is the case in England and Wales, and also in Scotland.
- Data from Scotland for the years 1979-2010 show a noticeable decline in mortality rates from circulatory diseases, cancer and accidents for both men and women.
- In England and Wales and in Scotland, suicide rates in 2011 were around three times higher for men than for women.
- In 2011, accident mortality rates were around twice as high for men as for women.

Data implications

The dependence in this domain on administrative datasets means it is more difficult than in other domains to obtain breakdowns by a range of protected characteristics. In many cases, data are not collected other than for age and gender. Moreover, data on other characteristics need to be obtained direct from the data subject, but this is not possible after a person's death.

1. Introduction

The Equality and Human Rights Commission (EHRC) is developing a Measurement Framework (MF) in order to fulfil its statutory requirements. The MF, which covers England, Scotland and Wales, consists of a number of domains, indicators and measures that are based on four major research reports that were commissioned by the EHRC between 2007 and 2010. These studies focused on equality (Alkire et al., 2009), good relations (Wigfield and Turner, 2010), children (Holder et al., 2011) and human rights (Candler et al., 2011).

Each of the domains focuses on a central and valuable capability (something in life that we can do or be, and that we value, or have reason to value) that formed the basis of the equality and children's frameworks (see Vizard and Burchardt, 2007 for a discussion of the capability approach to measuring inequalities; Alkire et al., 2009). This paper presents data relating to indicators for adults and children in the 'Life' domain, using the adult equality indicators as the organising principle. While we are presenting the data in this format for the purposes of the briefing papers, it is important to note that the individual frameworks were developed separately and are underpinned by different methodologies.

The EHRC is gradually populating the MF with data for some of the groups protected under the 2010 Equality Act. In the case of the administrative data sources used for this briefing, data are generally available for the protected characteristics of age and gender. However, they are only occasionally available for ethnicity, and not at all for other characteristics. Data on socio-economic status are set out where available. The years for which data are available vary between indicators; in some cases, trend data are available over several years.

Briefing papers covering particular domains are being prepared and published by the EHRC during 2012-13; this, the fifth in the series, focuses on Life. Each briefing paper provides an analysis of the most recent data that are currently available. The emphasis is placed throughout on highlighting differences between related equality groups - for example, between women and men or between people of different ages - rather than between protected characteristics, such as gender and age. Differences between England, Scotland and Wales are also highlighted where possible. Key data are shown in the tables and figures in the briefing; the detailed statistical data from which these are drawn are presented on Excel spreadsheets on the EHRC's website (as indicated in footnotes).

2. Domain analysis

The right to life is enshrined in a range of international conventions, notably the Universal Declaration of Human Rights, and in Article 2 of the European Convention on Human Rights, which is incorporated into UK law via the Human Rights Act 1998.

The data in this briefing relate to two key areas:

- avoiding premature mortality through disease, neglect, injury or suicide;
- being protected from being killed or tortured.

There are four indicators for adults in the 'life' domain:

1. Life expectancy
2. Homicide
3. Other specific-cause mortality rates
4. Death rates from non-natural causes for people resident and / or detained in public and private institutions.

The children's indicators are similar to those for adults:

1. Infant mortality rate
2. Homicide of children and young people
3. Other specific-cause mortality rates for children and young people
4. Preventable deaths of children and young people
5. The number of deaths from non-natural causes for children and young people resident and / or detained in public or private institutions.

The briefing sets out data on groups with protected characteristics under the Equality Act 2010 and highlights inequalities when they occur: for instance, between women and men, between people of different ages, or between people of different ethnicities.

2.1 Life expectancy

The measure relating to life expectancy focuses on 'period life expectancy'. This refers to the average number of years that people would live if they experienced current mortality rates during each year of their lives. This is different from 'cohort life expectancy', which estimates how long people are expected to live on average,

depending on how mortality rates change over time; cohort life expectancy would indicate how long, on average, people of a given age could expect to live.

The data for this measure are drawn from the Office for National Statistics (ONS) 2010-based period and cohort life expectancy tables for England, Scotland and Wales, based on period life expectancy for the years 1985 to 2010.

As is well established, women have a longer life expectancy than men. Period life expectancy for women in Great Britain increased from 77 years at birth in 1985 to 82 in 2010; for men it increased from 72 to 79 years.¹ The gap between women's and men's life expectancy has thus decreased.

Data for every fifth year show that, over the past 25 years, men in England have had a higher period life expectancy than in Wales and Scotland. This was also the case for women, except in 1990, when rates were the same in England and Wales. In 2010, the life expectancy at birth for women and men in Scotland was 81 and 76 respectively; in Wales it was 82 and 78; and 83 and 79 in England.

Data from England and Wales for 2002-2006 on social class show that children born to parents in professional occupations had the highest life expectancy (85 for women, 80 for men); those with parents in unskilled manual occupations had the lowest (78 for women, 73 for men).²

2.2 Infant mortality rate

Infant mortality data are drawn from ONS statistics on the deaths of infants aged under one year. The data for England and Wales also contain additional analyses by some of the key risk factors relating to infant deaths, including age of mother and father's socio-economic status. These characteristics are derived from linking the death to the corresponding birth registration record.

In England, Wales and Scotland, death rates for male infants under the age of one year were higher than for females.³ Rates were highest in England. In 2010, death rates for male infants were 4.6 per 1,000 live births in England, 4.4 in Wales and 4.0 in Scotland; for females they were 3.9, 3.4 and 3.4 respectively.

¹ See data table EA1.1.

² See data table EA1.1.

³ Data table CA1.1.

Data on social class are based on the father's socio-economic status⁴. From 2006 to 2010 they were derived only from joint registrations of birth in England and Wales; in 2011 they comprised registrations inside marriage and joint registrations outside marriage. Over the six-year period 2006-2011, death rates were highest for babies whose fathers were in semi-routine occupations (4.9 per 1,000 live births in 2011), and lowest for fathers in managerial or professional occupations (2.5 per 1,000 live births in 2011 for fathers in higher professional occupations).

Data on ethnicity in relation to infant mortality are available for England and Wales for the years 2007-08, 2009 and 2010. These data are derived from birth notifications, with the baby's ethnicity being recorded as defined by the mother; the data are available for over 90 per cent of births in each year.

Over the period 2007-08 to 2010, the infant mortality rate was lowest for White groups and highest in the Pakistani and Black Caribbean groups: in 2010, it was 3.6 per 1,000 live births for all White groups combined, 8.8 per 1,000 in the Pakistani group and 8.0 per 1,000 in the Black Caribbean group. While the mortality rate for all White groups combined declined between 2007-08 and 2009, and again in 2010, there was no clear pattern for the other groups. In the Pakistani group, for instance, the rate dropped from 9.6 per 1,000 in 2007-08 to 8.3 per 1,000 in 2009 before rising to 8.8 per 1,000 in 2010. Although rates declined for most groups between 2007-08 and 2010, there was an increase for Indian children (from 5.0 to 5.6 per 1,000).

2.3 Homicide

Both the Home Office (in respect of England and Wales) and the Scottish Government collect data on homicides (which include the separate offences of murder, manslaughter and infanticide). In England and Wales, information about individual homicides is recorded by police and collated in the Homicide Index. Key data are published in the annual report 'Homicides, Firearm Offences and Intimate Violence: Supplementary Volume 2 to Crime in England and Wales'. In Scotland,

⁴ The socio-economic (NS-SEC) analytic classes are:

- 1 Higher managerial, administrative and professional occupations
- 1.1 Large employers and higher managerial and administrative occupations
- 1.2 Higher professional occupations
- 2 Lower managerial, administrative and professional occupations
- 3 Intermediate occupations
- 4 Small employers and own account workers
- 5 Lower supervisory and technical occupations
- 6 Semi-routine occupations
- 7 Routine occupations
- 8 Never worked and long-term unemployed.

details of homicides recorded by Scottish police forces are published in the biennial 'Homicide in Scotland' statistical bulletin.

Both publications include a range of information about offences, victims and suspects. They also include some breakdowns by age, gender and ethnicity. In the case of some of the measures relating to specific types of homicide, additional breakdowns have been provided by the Home Office and Scottish Government.

As the Home Office report on homicides in England and Wales points out⁵, caution is needed when looking at figures over several years. Those figures are based on the years in which homicides are recorded by the police: for instance, the 2002-03 figures include 172 homicides attributed to Harold Shipman. Also, figures relate to the number of people who are killed, not the number of incidents: the 2010-11 data include 12 homicides in one incident in Cumbria.

Homicide rate (adults)

The data for the ten years 2001-02 to 2010-11 nonetheless show some falls in overall homicide rates in England and Wales and in Scotland. For example, for adult males in England and Wales the homicide rate was in the range 24-25 per million up to 2004-05 and below 20 per million from 2008-09. Similarly, for adult males in Scotland the homicide rate was over 45 per million up to 2004-05 and below 35 per million from 2008-09 (Table 1).

Homicide rates for males were seen to be consistently higher in Scotland than in England and Wales over this period. However, the gap between the rates for male victims in Scotland and in England and Wales was least in the latest three years' data.

The ethnicity of homicide victims can only be measured from their ethnic appearance, while population estimates are based on self-defined ethnicity: assumptions must therefore be made about the mapping of self-defined ethnicity into the four groups for ethnic appearance which are presented here.⁶ The resulting data nonetheless show that, in each of the ten years from 2001-02 to 2010-11, Black adults had the highest homicide rate and White people the lowest. However, the

⁵ Home Office (2012). Homicides, Firearm Offences and Intimate Violence 2010/11: Supplementary Volume 2 to Crime in England and Wales 2010/11.

⁶ In addition, only an experimental series of population estimates by ethnic group is currently available. Initial results from the 2011 Census for England and Wales suggest that this has diverged from the ethnic profile of the population, such that the white population has been overestimated and other ethnic groups underestimated.

Table 1 Homicide rate (per million), victims aged 16 and over, by age, ethnic appearance and gender, England and Wales and Scotland, 2001-02 to 2010-11

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
England and Wales										
16 to 29	26.4	22.7	24.4	26.6	25.0	23.0	23.1	20.5	16.8	15.7
30 to 49	20.9	19.3	19.6	17.6	17.2	18.4	18.5	14.4	15.1	16.3
50 to 69	9.4	11.3	10.5	11.2	8.7	8.5	9.2	9.1	8.3	9.1
70 and over	10.4	35.7	8.3	9.8	7.9	5.3	6.8	8.0	7.6	7.8
Scotland										
16 to 20	40.6	40.8	28.0	36.5	33.1	42.1	42.0	29.9	27.0	42.0
21 to 30	37.8	52.9	47.1	66.8	29.0	54.8	36.5	35.4	25.8	29.5
31 to 50	31.5	32.0	30.6	31.8	31.9	29.4	33.6	31.9	25.4	27.7
51 to 70	16.9	14.2	13.2	18.2	9.4	15.3	15.1	8.3	12.2	11.3
71 and over	9.6	11.4	3.8	5.6	3.7	5.5	5.4	5.3	1.8	1.7
England and Wales										
White	14.0	13.3	13.3	13.7	12.2	11.8	12.9	11.5	10.7	11.2
Black	94.4	71.6	61.6	64.4	53.6	60.9	59.5	55.3	37.5	39.6
Asian	35.2	18.9	26.8	21.0	23.5	24.5	22.8	15.4	19.0	21.6
Other	38.7	57.0	61.2	48.5	22.8	31.9	20.0	29.4	20.1	17.9
England and Wales										
Male	25.0	24.4	24.7	24.8	21.0	22.5	23.2	19.5	17.8	18.2
Female	10.5	16.3	8.9	9.1	9.9	7.6	7.8	7.7	7.5	7.8
Scotland										
Male	46.0	52.0	45.6	50.8	39.9	48.1	44.1	33.0	26.4	34.9
Female	8.8	7.0	5.5	11.5	5.0	8.2	9.0	12.1	11.6	8.0

Source: Rates were calculated by EHRC from Home Office Homicide Index data, Scottish Government homicide records and ONS population estimates, including experimental ethnicity estimates. See Data Table EA2.1.

homicide rate for Black adults was highest at an estimated 94 per million in 2001-02 and fell below 40 per million in 2009-10 and 2010-11. The gap between Black and White rates fell by around two-thirds (65 per cent) over the ten-year period.

The homicide statistics also include data on domestic homicides - where the relationship of the victim to the principal suspect is that of a son or daughter, parent, partner or ex-partner, or other family member.

Over the last ten years, the domestic homicide rate for females in England and Wales has been consistently higher than for males (Table 2). This is, however, not the case in Scotland, though overall numbers there are low: between six and 16 for males over the ten years, and between six and 15 for females. The domestic homicide rate for males was consistently lower in England and Wales than in Scotland. In the second half of the ten-year period, from 2006-07, it was also lower for females in England and Wales, as compared with Scotland.

In the case of homicides of partners or ex-partners, rates were again higher for females than for males in England and Wales (four and one per million respectively in 2010-11); the same was true in nine of the ten years in Scotland as well (Table 3).

In most years the domestic homicide rate in England and Wales was highest for the 30-49 age group. The same is true of homicides of partners or ex-partners.

In England and Wales, rates of domestic homicide for adults of Black ethnic appearance were higher in most years than for other ethnic groups, and lowest for White adults. However, rates for non-White groups decreased over the ten-year period. Domestic homicides for Black adults, for instance, were an estimated 62 per cent lower in 2010-11 than in 2001-02. Similar decreases occurred for homicides by partners or ex-partners.

Table 2 Domestic homicides currently recorded for victims aged 16 and over (rate per million population), by age, ethnic appearance and gender, England and Wales and Scotland, 2001-02 to 2010-11

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
England and Wales										
16 to 29	4.5	4.2	5.0	5.0	4.9	3.6	3.3	4.0	3.2	2.7
30 to 49	6.2	5.6	4.9	5.6	4.3	4.7	5.6	4.8	5.0	6.1
50 to 69	2.8	3.0	3.3	3.0	2.1	2.8	3.0	2.7	3.1	2.7
70 and over	3.8	3.0	2.6	0.5	2.6	1.1	2.5	3.6	2.6	4.1
Scotland										
16 to 20	9.3	3.1	3.1	0.0	3.0	0.0	6.0	6.0	6.0	3.0
21 to 30	7.9	9.6	3.3	9.8	8.0	12.5	9.1	5.9	0.0	7.0
31 to 50	5.4	5.3	4.0	6.6	8.0	5.3	8.7	8.8	8.2	7.6
51 to 70	2.7	3.5	3.5	3.5	3.4	5.1	5.0	2.5	4.1	3.2
71 and over	0.0	3.8	1.9	0.0	1.8	3.6	3.6	3.6	1.8	1.7
England and Wales										
White	3.8	3.7	3.7	4.2	3.2	3.1	3.7	3.5	3.4	3.3
Black	14.7	13.0	7.9	7.5	7.2	6.2	5.9	12.2	7.0	5.6
Asian	11.9	3.8	6.7	4.9	6.0	5.7	4.6	4.8	4.2	5.7
Other	8.6	13.3	6.8	7.8	4.3	5.3	2.5	3.5	4.5	4.5
England and Wales										
Male victims	2.6	2.6	3.1	3.4	2.4	2.4	3.0	2.4	2.3	1.9
Female victims	6.4	5.7	5.2	5.5	4.7	4.4	4.8	5.2	5.0	5.0
Scotland										
Male victims	4.1	6.7	4.1	5.1	8.1	7.0	6.9	4.9	2.9	4.4
Female victims	5.1	3.7	2.8	4.6	3.2	4.6	6.8	6.3	6.3	5.8

Source: Rates for England and Wales calculated by EHRC, using data from the Home Office Homicide Index and population estimates, including experimental ethnicity estimates. Data for Scotland provided by the Scottish Government. See Data Table EA2.2.

Table 3 Homicides by partners or ex-partners, currently recorded for victims aged 16 and over (rate per million population), by age, ethnic appearance and gender, England and Wales and Scotland, 2001-02 to 2010-11

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
England and Wales										
16 to 29	3.5	3.6	4.1	4.0	4.0	2.6	2.2	3.4	2.3	2.3
30 to 49	5.5	5.0	4.0	4.8	3.2	4.3	4.4	4.4	4.4	5.1
50 to 69	1.6	1.6	1.7	1.9	1.3	2.0	1.4	1.6	1.9	1.6
70 and over	2.0	0.8	0.5	0.2	1.5	0.3	0.6	1.4	0.2	1.8
Scotland										
16 to 20	3.1	3.1	3.1	-	3.0	-	6.0	6.0	3.0	3.0
21 to 30	6.3	4.8	-	6.5	8.0	7.8	7.6	3.0	-	4.2
31 to 50	4.7	3.3	1.3	4.0	6.0	2.7	6.7	6.8	6.9	6.2
51 to 70	0.9	2.7	0.9	3.5	0.9	0.8	3.4	1.7	1.6	0.8
71 and over	-	1.9	-	-	-	1.8	1.8	3.6	-	-
England and Wales										
White	3.1	2.8	2.5	3.2	2.4	2.5	2.4	2.8	2.5	2.6
Black	9.8	11.2	5.3	6.7	4.0	4.6	1.5	7.2	2.8	2.8
Asian	6.8	1.6	4.6	3.4	3.7	3.5	3.7	2.8	2.7	2.7
Other	6.5	11.4	5.1	4.7	4.3	5.3	2.5	3.5	2.2	2.2
England and Wales										
Male victims	1.4	1.5	1.3	1.9	1.1	1.4	1.5	1.4	1.0	1.0
Female victims	5.4	4.8	4.4	4.8	4.1	4.0	3.6	4.4	4.1	4.0
Scotland										
Male victims	1.0	2.6	0.5	2.0	5.0	2.5	4.0	2.5	1.5	1.5
Female victims	5.1	3.7	1.4	4.6	2.7	2.7	6.3	5.8	4.5	4.9

Source: Rates for England and Wales calculated by EHRC, using data from the Home Office Homicide Index and population estimates, including experimental ethnicity estimates. Data for Scotland provided by the Scottish Government. See Data Table EA2.2.

One specific form of homicide of concern relates to the use of sharp instruments (such as knives) and shooting (gun crime). Such homicide rates were higher for males compared with females in both England and Wales and in Scotland (Table 4). They were also higher for males in Scotland (23 per million in 2010-11) than in England and Wales (nine per million in 2010-11). Homicide rates from these causes reduced for men in both England and Wales and in Scotland over the ten-year period.

In England and Wales and in Scotland, rates of homicide from these two causes were generally highest in the youngest age-groups (16-29 in England and Wales; 16-20 and 21-30 in Scotland) and gradually reduced with age. In England and Wales, rates for the 16-29 group were lowest in 2009-10 and 2010-11.

In England and Wales, rates of homicide involving knife or gun crime were higher for adults of Black ethnic appearance than for other ethnic groups. However, rates for the Black group fell by an estimated 59 per cent over the ten-year period.

Data are also collected on homicides where the motivation is racial, religious or homophobic.⁷ However, numbers are low (11 in total in England and Wales and four in Scotland in 2010-11) and breakdowns are not available by protected groups.⁸

⁷ The Home Office homicide database has fields for the circumstances around the homicide, including whether it is racially, religiously motivated or homophobic. However, the data are not routinely published and have not been quality assured. The Scottish Government also receives information from police forces on racial and homophobic motivation for homicides.

⁸ Data table EA2.4.

Table 4 Homicides currently recorded for victims aged 16 and over involving sharp instrument or shooting as apparent method of killing (rate per million population), by age, ethnic appearance and gender, England and Wales and Scotland, 2001-02 to 2010-11

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
England and Wales										
16 to 29	15.9	13.5	14.0	14.3	13.0	14.9	13.0	11.8	9.2	9.2
30 to 49	9.2	9.2	7.9	8.3	6.5	8.2	8.5	7.0	6.5	10.7
50 to 69	3.9	3.9	3.1	4.0	3.0	3.3	3.2	3.6	3.1	3.8
70 and over	2.2	3.6	1.6	0.4	1.1	0.6	0.8	1.7	1.5	2.1
Scotland										
16 to 20	34.3	22.0	24.9	27.4	18.0	36.1	33.0	26.9	9.0	30.0
21 to 30	22.0	28.9	29.2	42.4	16.1	36.0	19.8	23.6	14.4	28.1
31 to 50	19.4	18.7	16.6	21.9	15.3	14.0	17.5	17.7	11.7	15.9
51 to 70	4.5	6.2	3.5	6.1	2.6	4.2	5.0	3.3	5.7	5.6
71 and over	3.8	0.0	0.0	3.7	0.0	0.0	3.6	1.8	0.0	0.0
England and Wales										
White	5.8	5.8	5.3	5.8	4.6	5.2	5.1	4.5	4.2	5.1
Black	70.8	58.6	44.8	50.2	38.4	48.6	46.1	50.2	27.8	29.2
Asian	19.8	10.8	12.4	7.8	12.0	13.1	11.6	8.7	9.9	9.5
Other	17.2	34.2	11.9	23.5	10.0	19.9	11.2	14.1	8.9	10.1
England and Wales										
Male victims	13.5	11.5	11.6	12.0	9.6	11.1	11.5	9.6	8.1	9.0
Female victims	3.3	4.5	2.7	3.7	3.1	3.7	2.7	3.4	2.9	3.5
Scotland										
Male victims	27.9	28.8	26.1	33.5	19.2	26.5	25.8	23.6	13.7	23.3
Female victims	3.2	1.9	1.8	5.1	1.8	3.6	2.7	3.6	4.0	5.3

Source: Rates for England and Wales calculated by EHRC, using data from the Home Office Homicide Index and population estimates, including experimental ethnicity estimates. Data for Scotland provided by the Scottish Government. See Data Table EA2.2.

Homicide rate (children and young people)

In England and Wales, homicide rates for children and young people under 16 were generally higher for boys than for girls over the ten-year period 2001-02 to 2010-11 (Table 5). The overall numbers of homicide victims in Scotland were low (seven boys and girls in total in 2010-11).

In England and Wales, children under the age of one year were more likely than those in older age-groups to be the victims of homicide. Rates in 2010-11 were 25, six and three per million, for the age-groups 'under 1', '1-4' and '5-15' respectively.

The proportion of young people in England and Wales under the age of 16 who were victims of homicide was consistently higher among those of Black ethnic appearance than those who were White or Asian.

Table 5 Homicides of children and young people under 16 (rate per million), by age, ethnic appearance and gender, England and Wales and Scotland, 2001-02 to 2010-11

	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
England and Wales										
Under 1 year	27.2	52.7	42.9	35.0	32.9	24.5	31.1	22.8	31.5	25.3
1-4	7.6	10.6	7.9	7.5	3.7	9.3	7.9	5.8	6.4	5.9
5-15	3.6	4.6	3.5	2.9	2.4	3.8	3.1	2.2	1.7	3.2
Scotland										
Under 1 year	76.9	19.6	77.2	74.6	55.0	18.1	35.1	33.6	0.0	50.5
1 to 4	8.9	13.8	0.0	19.1	0.0	4.7	9.2	4.5	4.4	4.3
5 to 15	1.4	7.3	5.9	5.9	1.5	4.6	3.1	3.2	1.6	4.9
England and Wales										
White	5.1	7.0	5.4	4.2	3.7	3.6	5.2	2.9	4.1	4.6
Black	21.3	18.8	12.3	26.1	9.9	25.3	17.2	18.7	16.5	14.7
Asian	0.0	14.6	10.5	6.5	6.4	17.4	0.0	7.0	2.3	5.6
Other	38.7	31.0	11.9	5.7	5.5	21.2	35.1	0.0	9.0	9.0
England and Wales										
Male	8.4	7.3	8.3	6.0	5.1	7.8	7.3	5.0	5.1	6.6
Female	3.3	10.2	5.3	5.8	4.0	5.0	5.0	4.0	4.8	4.2
Scotland										
Male	8.0	8.2	10.4	20.9	4.2	6.4	4.3	8.6	2.1	10.7
Female	6.3	10.7	6.5	4.4	4.4	4.4	8.9	2.2	2.2	4.5

Source: Rates for England and Wales calculated by EHRC, using data from the Home Office Homicide Index and population estimates, including experimental ethnicity estimates. Data for Scotland provided by the Scottish Government. See Data Table EA2.2.

The numbers of children and young people under 16 who were victims of domestic homicide in 2010-11, involving a parent or relative as a suspect, were 40 in total in England and Wales and seven in Scotland. In England and Wales, 15 were under the age of one, as were three in Scotland.⁹ In England and Wales, 31 victims were White, with eight from other ethnic groups (ethnic appearance was not recorded in one case).

There were 13 homicides of children and young people involving sharp instruments or shooting in 2010-11, and three in Scotland.¹⁰ Over the ten-year period, 68 boys and 34 girls were victims in England and Wales, as were 13 boys and three girls in Scotland. In England and Wales, 49 victims were White, 33 were Black, and seven were Asian.

2.4 Other specific-cause mortality rates

Mortality rates from cardio-vascular disease and cancer were included in Department of Health targets because these are major causes of early death. In addition to health conditions, this section also considers two other major causes of premature death: suicides and accidents. Data for the population as a whole or for adults specifically show that mortality rates for these four causes are typically higher for men than for women.¹¹ They also show higher rates for these selected causes in Scotland as compared with England and Wales.

Age-standardised mortality rates from diseases of the circulatory system (or cardio-vascular diseases¹²) are higher for men than women, and higher in Scotland than in England and Wales. Rates per 100,000 were 202 and 127 respectively in England and Wales in 2010, and 238 and 148 in Scotland.¹³ These rates decreased in 2011 to 180 and 111 respectively in England and Wales, and to 222 and 141 in Scotland. Over the period 1979-2011, rates in Scotland fell from 1979 levels of 758 per 100,000 for men and 464 per 100,000 for women.

Age-standardised mortality rates from cancer, too, are higher for men than women, and higher in Scotland than in Wales or England. Rates per 100,000 in 2010 were 232 and 171 respectively in Scotland, 201 and 152 in Wales, and 198 and 144 in

⁹ Data table CA2.2.

¹⁰ Data table CA2.3a.

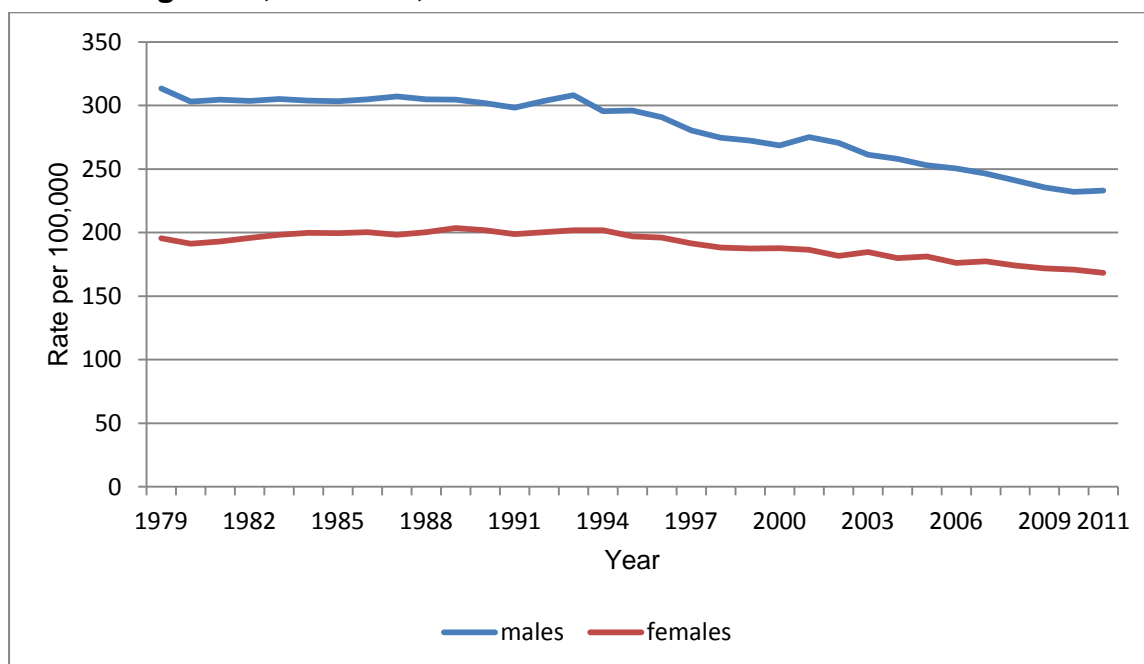
¹¹ Age-standardised mortality rates take account of differences in the age structures of different populations, in order to allow for comparisons between them. The calculations in this section are based on the European Standard Population.

¹² Cardio-vascular diseases include: ischaemic heart disease, which involves reduced blood supply to the heart and risk of heart attack; and cerebrovascular disease, involving reduced blood supply to the brain and risk of stroke.

¹³ Data table EA3.1.

England.¹⁴ Data from Scotland for the years 1979-2011 (Figure 1) show a noticeable decline in cancer mortality rates for both women and men, starting in the mid-1990s.

Figure 1 Age-standardised mortality rate (per 100,000) from cancer, by gender, Scotland, 1979-2011



Source: General Register Office for Scotland. See Data Table EA3.2.

The same pattern occurs in relation to suicide. In England and Wales and in Scotland, age-standardised suicide rates per 100,000 population in 2011 were higher for men than for women: 13 and four respectively in England and Wales, and 25 and nine in Scotland.^{15,16} Rates were also seen to be higher for both men and women in Scotland, as compared with England and Wales.

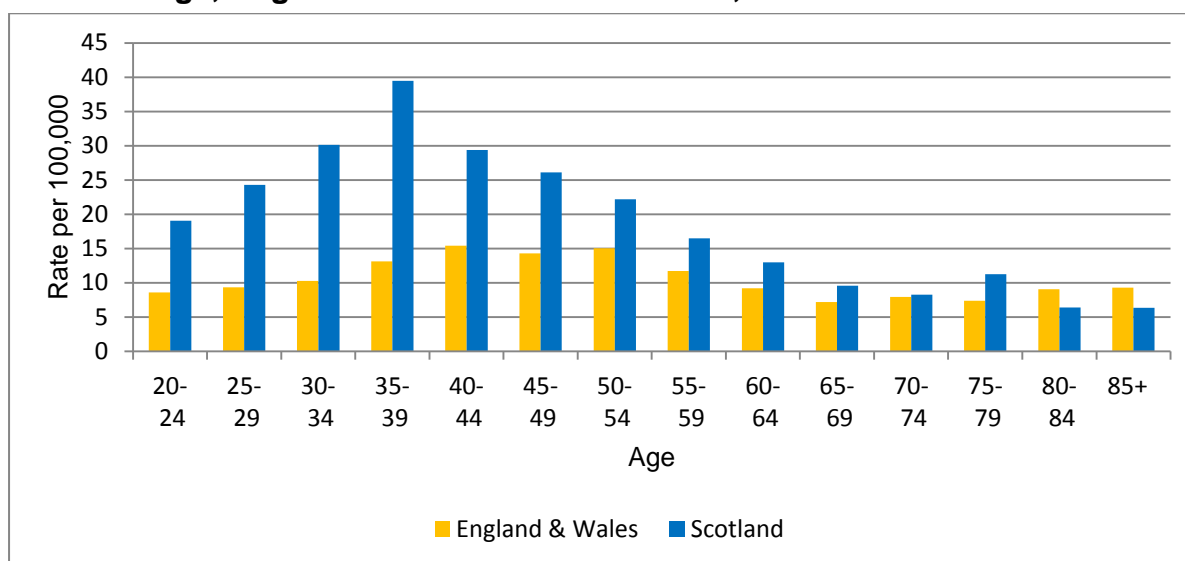
In England and Wales, suicide rates in 2011 were highest between the ages of 35 and 59, and in Scotland between the ages of 25 and 54 (Figure 2). Suicide rates were higher in Scotland than in England and Wales for all age-groups except the oldest (80 and over), but particularly for people up to the age of 59.

¹⁴ Data table EA3.2.

¹⁵ Data table EA3.3.

¹⁶ National Records of Scotland use the term 'Probable Suicides' for 'deaths which were known to be, or are thought likely to be, the results of intentional self-harm' (<http://www.gro-scotland.gov.uk/statistics/theme/vital-events/deaths/suicides/index.html>).

Figure X Suicide rate (per 100,000 population), adults aged 20 and over, by age, England and Wales and Scotland, 2011



Sources: Data for England and Wales provided by ONS. Data for Scotland calculated by EHRC using National Records of Scotland mortality statistics and population estimates. See Data Table EA3.3.

The fourth specific cause of mortality concerns accidents: these include transport accidents, falls, accidental drowning, exposure to smoke or fire, and accidental poisoning. In 2011, age-standardised mortality rates were around twice as high for men as for women: 20 and 10 respectively (per 100,000 population) in England and Wales, compared with 33 and 15 in Scotland.¹⁷ Data from Scotland for 1979-2011 show that the age-standardised rates for men and women both fell by around half during that period. Rates for particular age-groups were lowest for children, and increased rapidly in the oldest age-groups, with the highest rates among people aged 85 and over: 280 per 100,000 in England and Wales, and 386 per 100,000 in Scotland.

Other specific-cause mortality rates for children and young people

For children and young people, mortality rates from cancer in 2011 were 2.8 per 100,000 for boys in England and 2.7 in Scotland.¹⁸ For girls they were 1.8 in England and 3.1 in Scotland. However, numbers in Scotland were small (16 boys and 18 girls in 2011) and the data need to be interpreted with caution.

There was a gender difference in deaths relating to suicide or accidents, with higher rates for boys than for girls. In 2011, the suicide rate for boys aged 10-19 in England and Wales was 3.3 per 100,000, as compared with 1.4 per 100,000 for girls.^{19,20} In

¹⁷ Data table EA3.4.

¹⁸ Data table CA3.1.

¹⁹ No suicides were recorded in 2010 or 2011 for children under the age of 10. However, there were some instances of events of undetermined intent, which are included in the ONS definition of suicide.

Scotland, the rates were 5.5 and 4.8 respectively, per 100,000. Suicide rates among children and young people were highest in the 15-19 age-group and were over twice as high in Scotland as in England and Wales: 9.8 and 4.0 respectively, per 100,000.

The mortality rate from transport accidents in 2011, too, was higher for boys and young men under 20 than for girls and young women: 2.5 and 1.0 respectively per 100,000 in England and Wales, and 2.8 and 0.7 respectively in Scotland.²¹ It was highest for young people in the 15-19 age-group: 5.4 per 100,000 in England and Wales, and 4.7 per 100,000 in Scotland.

The mortality rate from accidents in the home and in communal establishments in England and Wales was also higher for boys than for girls over the period 2006-10 (1.1 and 0.6 respectively in 2010, per 100,000 population).²² Rates were highest for children under the age of one (2.1 per 100,000).

2.5 Deaths from non-natural causes in custodial settings

People who are under the care of public or private organisations can expect to receive appropriate protection from death from non-natural causes. This section considers the available evidence on deaths in police custody and prisons.

There were 10 deaths from non-natural causes in or following police custody in England and Wales in 2011-12.^{23, 24} Eight of these were people aged between 21 and 40. Eight were White, one was Black and one of Mixed ethnicity. Nine were men. No breakdowns are available by cause, age, ethnicity or gender for deaths in police custody in Scotland, of which there were four in total in 2011.²⁵

Data on deaths in prison show that there were 58 self-inflicted deaths in prisons in England and Wales in 2010, and 10 in Scotland.²⁶ In England and Wales, all but one of the deaths were of males, the age-group with the highest number was 40-49, and White prisoners accounted for 51 deaths. In Scotland, the 10 deaths were all of males, four were aged 25-29, and nine were White. Data for England and Wales

To attribute even possible suicide to children under 10 might potentially be misleading. The analysis therefore limits the definition of suicide to children aged 10 and over.

²⁰ Data table CA3.2.

²¹ Data table CA3.3.

²² Data table CA3.4.

²³ Data table EA4.1.

²⁴ Suicides during police custody are included in these data. The Independent Police Complaints Commission (IPCC) publishes separate data on suicides following police custody but considers these to be incomplete.

²⁵ Data table EA4.1.

²⁶ Data table EA4.2.

show that the rate of self-inflicted deaths in prisons fell from 13 to seven per 10,000 prisoners for males over the period 2002-11; the numbers of deaths among female prisoners were low (between three and 14 in each of the years from 2002 to 2007, and between one and three from 2008 to 2011).

Deaths of children and young people in custodial settings

There were no deaths of children or young people aged under 18 in England and Wales in police custody in 2010, or in young offenders institutions, secure children's homes or secure training centres in 2010-11.²⁷ There were also no deaths of young people in custody in Scotland in 2010. However, there were three self-inflicted deaths in penal custody in England and Wales in 2011-12, all of young men aged under 18.

2.6 Preventable deaths of children and young people

Since 1 April 2008, Local Safeguarding Children Boards in England have had a statutory responsibility to review the deaths of all children from birth (excluding stillborn babies) up to 18 years. Reviewing child deaths includes collecting information about the circumstances of the death and identifying if there were any modifiable factors in the death: a modifiable death is defined as one where there are factors which may have contributed to the death and which could be modified to reduce the risk of future child deaths.

The Department for Education collects information on child death reviews carried out in England. In 2011-12, there were 3,964 such reviews, with modifiable factors being identified in 784 of these.²⁸ Thirty-two per cent of deaths with modifiable factors related to children aged between 28 and 364 days. However, the highest percentage of reviews where modifiable factors were identified was in the 15-17 age-group (32 per cent of reviews in this age-group). Children of White ethnicities accounted for 67 per cent of child deaths that were subject to reviews and where ethnicity was recorded, Asian children for 18 per cent and Black children for nine per cent. Modifiable factors were identified in 21 per cent of reviews involving White children, compared with 15 and 20 per cent of reviews involving Asian and Black children respectively.

²⁷ Data table CA5.1.

²⁸ Data table CA4.1.

3. Conclusions

As this domain includes measures that have been of public concern for some time, some of the data are already known. In other cases, the data are publicly available, but may have not been previously analysed. In a number of instances, data providers have provided previously unpublished breakdowns for groups with characteristics that are protected under the Equality Act. Some of the data are available over a period of ten years or more: these provide a picture of change over time.

Some of the key data relate to differences between men and women. As is well established, women have a longer life expectancy than men, and life expectancy at birth for both women and men continues to increase. However, the gap between women's and men's life expectancy decreased between 1985 and 2010.

It is also known that homicide rates are higher for men than women: this also applies to homicides resulting from knife and gun crime. However, homicide rates from these causes have reduced for men over the ten years from 2001-02 to 2010-11.

Men have higher age-standardised rates of death from cardio-vascular disease, cancer, suicide and accidents than women. Data from Scotland for 1979-2011 show that the age-standardised mortality rates for cardio-vascular disease, cancer and accidents fell for both men and women over this period.

In relation to ethnicity, the homicide data show that Black adults and children in England and Wales had higher homicide rates than other ethnic groups. Nevertheless, the rate for Black adults decreased by half over the past ten years. Homicide rates due to knife and gun crime and domestic homicide were, similarly, higher for Black adults but fell over the ten years. Homicide rates of children and young people under 16 due to knife and gun crime reveal higher rates in the Black group than in the White and Asian groups.

The data show some differences by country. Men and women in England have a higher life expectancy than in Wales or Scotland. Mortality rates from cancer were highest in Scotland, compared with both England and Wales, for both men and women. They were also higher in Scotland than in England and Wales (combined) for cardio-vascular disease, for both men and women. The male homicide rate for adults was higher in Scotland than in England and Wales, but reduced over the ten-year period. In the case of homicides due to knife and gun crime, rates for males were again higher in Scotland than in England and Wales, but both sets of rates reduced over the period.

Suicide rates were around twice as high for both men and women in Scotland as in England and Wales. Among 15-19 year-olds, they were over twice as high in Scotland as in England and Wales.

3.1 Data implications

This paper presents a starting-point for a statistical analysis of the life domain.

All the data in this domain are drawn from administrative datasets. The groups with protected characteristics under the Equality Act that are included in all the datasets are gender and age. In some cases, ethnicity is also available, and occasionally socio-economic status. Data are currently not collected on disability, sexual orientation, religion or belief, or gender reassignment. Data are often only available for England and Wales combined, with separate data for Scotland.

In some cases, only proxy data are available: this is the case with the ethnic appearance, rather than the self-defined ethnicity, of homicide victims. Data on characteristics other than age and gender generally need to be obtained direct from the data subject. This is particularly important in this domain, where such data need to be obtained prior to a person's death.

For all the sources used for this domain, data are needed for the wider range of protected characteristics in order to establish if some groups are dying prematurely. This will require the organisations which currently collect mortality statistics to develop the data sources further to incorporate information on additional characteristics. Such data collection and analysis will enable them to fulfil their responsibilities under the Equality Act.

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