

About the Office for National Statistics

The Office for National Statistics (ONS) is the Government Agency responsible for compiling, analysing and disseminating many of the United Kingdom's economic, social and demographic statistics, including the retail prices index, trade figures and labour market data, as well as the periodic census of the population and health statistics. The Director of ONS is also Head of the Government Statistical Service (GSS) and Registrar General in England and Wales and the agency carries out all statutory registration of births, marriages and deaths there.

About Health Statistics Quarterly and Population Trends

Health Statistics Quarterly and *Population Trends* are journals of the Office for National Statistics. Each is published four times a year in February, May, August and November and March, June, September and December, respectively. In addition to bringing together articles on a wide range of population and health topics, *Health Statistics Quarterly* and *Population Trends* contain regular series of tables on a wide range of subjects for which ONS is responsible, including the most recently available statistics.

Subscription

Annual subscription, including postage, is £75; single issues are £20.

Annual subscription for both *Health Statistics Quarterly* and *Population Trends*, including postage, is £135.

The ONS editorial policy

The Office for National Statistics works in partnership with others in the Government Statistical Service to provide Parliament, government and the wider community with the statistical information, analysis and advice needed to improve decision-making, stimulate research and inform debate. It also registers key life events. It aims to provide an authoritative and impartial picture of society and a window on the work and performance of government, allowing the impact of government policies and actions to be assessed.

Editorial board

Peter Goldblatt (editor)
David Pearce (editor)
Angela Dale
Paul Hyatt
Graham C Jones
Azeem Majeed
Jil Matheson
Ian R Scott
Judith Walton

Contributions

Articles: 5,000 words max.

Dates for submissions

Title \ Issue	Spring	Summer	Autumn	Winter
<i>Health Statistics Quarterly</i>	by 10 Sept	by 10 Dec	by 22 Mar	by 21 June
<i>Population Trends</i>	by 22 Oct	by 2 Feb	by 4 May	by 26 July

Please send to:

Clare Parrish, executive secretary
Health Statistics Quarterly/Population Trends
Office for National Statistics
B7/05
1 Drummond Gate
London SW1V 2QQ

Tel: 020 7533 5264
Fax: 020 7533 5103
E-mail: clare.parrish@ons.gov.uk

Contact points at ONS

People with enquiries about the statistics published regularly in *Health Statistics Quarterly* and *Population Trends* can contact the following enquiry points.

Topic enquiries

Abortions: 01329 813618
Births: 01329 813772
Conceptions: 020 7533 5113
Expectation of life: 020 7211 2622 (Government Actuary's Department)
Marriages and divorces: 01329 813772
Migration: 01329 813889/813897
Mortality: 01329 813232
Population estimates: 01329 813318
Population projections:
National – 020 7211 2622 (Government Actuary's Department)
Subnational – 01329 813474/813865

General enquiries

National Statistics Information and Library Service
1 Drummond Gate
London SW1V 2QQ
Tel: 020 7533 5888

© **Crown copyright 2000**. Published with permission of the Office for National Statistics on behalf of the Controller of Her Majesty's Stationery Office.

For permission to reproduce material in this publication please contact:

Copyright enquiries
Office for National Statistics
B1/09
1 Drummond Gate
London SW1V 2QQ
Tel: 020 7533 5674
Fax: 020 7533 5685

ISBN 0 11 621180 6
ISSN 1465-1645

Health statistics

Quarterly

Spring 2000

05

IN THIS ISSUE

In brief

Recent ONS publications

Health indicators

The impact of more complete data from Wales on the National Congenital Anomaly System

Analyses notifications to ONS from the CARIS register in Wales and compares them with previous notification levels in Wales and with those in England. Also discusses the impact of improvement in completeness on local surveillance and on national statistics.

Bev Botting

Trends in cot deaths

Examines long-term trends in Sudden Infant Death Syndrome (SIDS) in England and Wales over the years 1971–1998, based on the underlying cause of death in the postneonatal period.

Nirupa Dattani and Nicola Cooper

Trends in regional deprivation and mortality using the Longitudinal Study

Examines trends in regional mortality using a deprivation index based on individual characteristics.

Alison Reid and Seeromanie Harding

Examining the contribution of social class to high cardiovascular mortality among Indian, Pakistani and Bangladeshi male migrants living in England and Wales

Analysis based on data from the 1991 Census and deaths in 1991–93.

Seeromanie Harding

Tables

List of tables

Notes to tables

Tables 1.1–6.3

Annual Update:

1998 Mortality Statistics - Cause (England and Wales)

Report:

ONS drug-related deaths database: first results for England and Wales, 1993–97

Page

2

5

6

7

10

17

26

30

31

32

54

57

in brief

Health Statistics Quarterly reference tables on the Internet

ONS is pleased to announce that the *Health Statistics Quarterly* and *Population Trends* reference tables are now available on *StatBase*®, the Government Statistical Service's (GSS) database set up to provide customers with a comprehensive set of key statistics drawn from the range of official statistics. Both data and 'metadata' (information about data) are contained within two linked systems: *StatSearch*® (information about data) are contained within two linked systems: *StatSearch*® contains information about all of the GSS's statistical resources; *StatStore*® contains a wide range of GSS data.

StatBase® is easily reached via the Internet at the GSS website: <http://www.statistics.gov.uk>. Access is gained by clicking on the *StatBase*® button.

A new facility, to group the reference tables together from a publication, can be found currently in *StatSearch*® under a theme called 'Web version of datasets from Publications'. Each publication title is held in the Subject level and once a publication is selected, the list of reference tables is shown for selection. This is shortly to be superseded by a specific button that takes a customer directly to the list of publications that have tables in *Statstore*®.

Each reference table is also held as a free-standing table within both *StatSearch*® and *Statstore*®. The theme called 'Health and Care' holds *Health Statistics Quarterly*

reference tables. The theme called 'Population, Census, Migration and Vital Events' holds *Population Trends* reference tables.

Users should note that data held on *StatBase*® are an electronic representation of published tables and some tables which appear in *Health Statistics Quarterly* or *Population Trends* as one table may be opened as multiple tables on *StatBase*®. The tables or parts of tables appear on *StatBase*® in alphabetical order of title. It should also be noted that *StatBase*® is a developing system which means that access to various components of the website are subject to change but each change should always make life easier for *StatBase*® customers.

For a free information pack on *StatBase*® please e-mail your request to: bob.dodds@ons.gov.uk

The extent of misclassification at death of Creutzfeldt-Jakob disease in England 1979-96: findings of joint ONS-CJD Surveillance Unit study

A report, produced by a joint ONS-CJD Surveillance Unit Research Team, has provided further evidence to support the hypothesis that new variant Creutzfeldt-Jakob disease (CJD) is a new disease, not found in this country before 1986.

CJD is a degenerative human brain disease. A national surveillance programme for CJD was started in May 1990 in response to a recommendation in the Report of the Working Party on Bovine Spongiform Encephalopathy (BSE). The primary aim of the new surveillance unit was to monitor CJD to determine if any change in the epidemiology of CJD might be attributable to the emergence of BSE. In 1996, Robert Will and colleagues at the National CJD Surveillance Unit reported ten cases of a variant of CJD, possibly associated with BSE. Speculation that BSE and CJD might be linked led to fears that the United Kingdom could be facing a substantial epidemic of variant CJD because of the large number of people who were exposed to BSE-infected material in the 1980s.

Following the initial report of a new variant of CJD in 1996, the number of deaths per quarter from variant CJD remained fairly constant until early 1999, when Will and colleagues reported that there had been a notable increase in deaths in the last quarter of 1998. However, CJD can be difficult to diagnose and without knowing the extent of past under-ascertainment of CJD, it is not possible to say whether any increase in the number of deaths from variant CJD is due to a real increase in incidence or whether it is an artefact due to better awareness and ascertainment of the disease.

The joint ONS-CJD Surveillance Unit Research Team led by Dr Azeem Majeed investigated whether misclassification at death of CJD may have occurred during the period 1979–96 in subjects who died aged 15–44 years from selected neurological disorders. People who died aged 15–44 were selected for two reasons. Firstly, variant CJD affects a younger age group than sporadic CJD. Secondly, the number of deaths from neurological disorders increases rapidly after the age of 45 years and limiting the age range of the subjects to 15–44 year olds would enable 100 per cent of subjects dying from the selected diseases to be studied. The study was funded by the Department of Health and received ethical approval from 150 ethics committees in England.

The research team examined the medical records of 705 patients dying from selected dementias and neurodegenerative disorders during the period 1979–96, with which CJD might have been confused. No previously undetected cases of CJD were identified in this group of patients. With any surveillance system, one major concern is that not all cases of a disease may be identified. Furthermore, the implementation of a surveillance system by itself may increase the apparent incidence of a disease, particularly if clinicians are being encouraged to refer suspected cases, as they are for new variant CJD. The findings in the report therefore have a number of important public health implications.

The current prospective surveillance system for CJD was established in 1990. There was also a surveillance system in place for England and Wales for the period 1980–84 and retrospective surveillance of cases for the periods 1970–79 and 1985–90. The failure to detect any previously unknown cases of either sporadic or new variant CJD in this study suggests that the national surveillance system for CJD that started in 1990, and the surveillance for possible cases during earlier periods, are unlikely to have missed a significant number of cases of CJD among people aged 15–44 years. Hence, surveillance for CJD seems to have worked well in detecting cases of CJD. Consequently, if there is

a rapid increase in the number of cases of new variant CJD among people aged 15–44 years, this is likely to be a real increase rather than an artefact due to better awareness and detection of the disease. Secondly, no cases of CJD were detected in people dying before 1990, when the national surveillance system started, suggesting that current estimates of the past incidence of CJD are accurate among the age-group examined. Finally, if we had identified a case of new variant CJD with a clinical onset before 1986, this would have cast some doubts on the link between BSE and CJD.

Copies of the full study report, the data collection form used, and a recent article about the study in the *British Medical Journal* are available from Dr Azeem Majeed (e-mail azeem.majeed@ons.gov.uk).

Quality of the reporting of 'age at death' in death registration in Northern Ireland

To investigate the quality of age recording in civil registration in Northern Ireland, a sample of death records were analysed by the Northern Ireland Statistics and Research Agency (NISRA).

The Central Services Agency (CSA), the Agency responsible for the updating of the Central Health Index (CHI - Northern Ireland's equivalent of the Family Health Service Authority patient registers) is notified of all death registrations recorded by the General Register Office, in order that these patients can be removed from the CHI.

For the study a sample of 1,698 death notifications was taken from the CSA records and information was collected to estimate the extent of the problem of inconsistent dates of birth between the GRO death registration and the CHI. The two dates of birth matched exactly on 1,467 occasions (86 per cent), with the remaining 14 per cent of mismatches were distributed as follows:

- 8 per cent had the same age at death in completed years.
- In 4 per cent of cases the ages (in completed years) differed by 1 year.
- In 1 per cent of cases the ages (in completed years) differed by 2 years.

- In 1 per cent of cases the ages (in completed years) differed by over 2 years.

Table 1 below shows that errors were proportionately more likely among the very elderly, with five per cent of death certificates showing age at death in excess of 90 years old being in error by at least two years.

Table 1 Percentage of death notifications with 'correct' age

	Sample size	Same age (%)	At most one year out (%)	At most two year out (%)
0–44	97	98	99	100
45–64	260	95	99	99
65–79	669	93	98	99
80–89	500	94	98	99
90 and over	172	88	93	95
All Ages	1,698	95	98	99

Implications for the mid-year population estimates

Subsequent simulation exercises by NISRA have shown that even if a small proportion of cases contain differences between reported and true age at death the cumulative effect on population estimates among the very elderly is large six years after a Census benchmark. The analysis suggests a shortfall in population estimates of very elderly (90 and over) females in Northern Ireland of approaching ten per cent *purely* as a result of the misreporting of age, with a smaller effect (four per cent) for males.

An article on revising the mid-year population estimates in Northern Ireland will be published on 21 March 2000, in *Population Trends* 99.

For more detailed information on the comparison contact Robert Beatty or Máire Rodgers at the Northern Ireland Statistics and Research Agency on www.nisra.gov.uk/dmb.

World Health Organisation conference, Cardiff

The annual conference of the Heads of WHO Collaborating Centres for the Classification of Diseases took place in Cardiff between 17–22 October 1999. The conference was hosted by the National Assembly for Wales, and the UK WHO Collaborating Centre for the Classification of Diseases. The formal

welcome to the conference was made by Jane Hutt, Health Secretary at the National Assembly.

The Heads of Centres (HOC) conference is the primary forum for discussion of the WHO Family of International Classifications. It was attended by representatives from the WHO Headquarters, the Collaborating Centres for Classification of Diseases and the Regional Offices. As the conference was held in the UK, it also provided a valuable opportunity for several people from the NHS Information Authority and ONS, who together constitute the UK Centre to attend the conference. This afforded valuable insights into how the work of the UK Centre fits into the international agenda on classification for health.

A significant part of the conference was occupied by consideration of the joint work plan on health-related classifications. This lays out the strategy, aims, priorities and roles of the international collaboration. It also established a set of working groups, targets and procedures. All of these groups met to take forward the work on various aspects of the plan in Cardiff. These included issues in mortality, morbidity and disability classification, and the links between the WHO family of classifications and other health-related classifications. These working groups and committees form part of a developing structure intended to move the Collaborating Centres forward from simply defining the classifications and recommending their use, to actively promoting them and helping countries throughout the world to benefit from classifying their data according to consistent international standards. The long term aim of this work is the production and implementation of classifications that facilitate comparison of health states, interventions and outcomes throughout the world.

General Household Survey

Preliminary results from the 1998 General Household Survey (GHS) were published in December 1999. These included new information on daily alcohol consumption and the latest figures on cigarette smoking and contraceptive use.

Drinking in the last seven days

Following an inter-departmental review in 1995¹ of the effects of drinking, the Department of Health's current advice on sensible drinking is based on daily

benchmarks. Consistently drinking four or more units a day for men, or three or more for women is not advised as a sensible drinking level because of the progressive health risk it carries. The GHS therefore included, for the first time in 1998, questions designed to measure alcohol consumption on the heaviest drinking day in the last week.

Findings on drinking in the week prior to the interview included:

- In 1998, 38 per cent of men and 21 per cent of women had exceeded the daily benchmarks on at least one day.
- Twenty one per cent of men and eight per cent of women had drunk heavily in 1998; that is, men had consumed more than eight units and women more than six units on at least one day.
- Younger people were more likely than older ones to have exceeded the daily benchmarks: 50 per cent of men and 41 per cent of women in the 16–24 age group had done so, compared with 17 per cent and 4 per cent respectively of those aged 65 and over.
- An age difference was also evident for heavy drinking: whereas 37 per cent of men and 23 per cent of women aged 16–24 had drunk heavily on at least one day in the week before interview, only four per cent of men and one per cent of women aged 65 and over had done so.
- There was no significant difference in the proportion of men and women from the manual and non-manual socio-economic groups who had either exceeded the daily benchmarks or had drunk heavily during the reference period.

Cigarette smoking

- In 1998, 28 per cent of men and 26 per cent of women in Great Britain were current cigarette smokers.
- Prevalence was higher among younger than among older respondents; 36 per cent of respondents aged under 25 were current smokers, compared with 16 per cent of those aged 60 and over.
- Cigarette smoking prevalence has declined substantially; 51 per cent of men and 41 per cent of women were current smokers in 1974, compared with 28 per cent and 26 per cent respectively in 1998. However, while prevalence declined steadily throughout the 1970s and 1980s, it has levelled out during the 1990s.

- Prevalence was higher among respondents from the manual socio-economic groups than among those from non-manual groups: about a third of men and women from the former group smoked, compared with just over a fifth of the latter.

Contraception

In 1998, the most common methods of contraception used by women aged 16–49 were:

- The contraceptive pill (used by 24 per cent of women).
- Sterilisation, of either the woman or her partner (used by 23 per cent).
- The male condom (used by 18 per cent).

The contraceptive pill, sterilisation and the condom have been the most commonly used methods of contraception for women since questions on contraception were first included in the survey in 1983.

The likelihood of using different methods of contraception varied with age. For example:

- Women in their late teens or twenties were most likely to use the contraceptive pill.
- Sterilisation was most common among women aged 35 or over, who are more likely than younger women to have completed their families.
- Women aged under 35 were more likely than older women to report that their partners used the male condom.

The most common reason for not using contraception, mentioned by 13 per cent of women aged 16–49, was not having a current sexual relationship. The proportions reporting no current sexual relationship were higher among young women under the age of 25 than among older women in this age group.

More detailed information on these topics and on self-reported health, the use of health services and hearing will be published in the report *Living in Britain*², in early March. As well as information on health and health-related topics, the report will also include data on marriage and cohabitation, day care for children aged under 14, housing and pensions.

¹ *Sensible drinking: the report of an inter-departmental group* was published by the Department of Health in 1995.

² *Living in Britain: Results from the 1998 General Household Survey*. The Stationery Office, price £39.50, ISBN 0 11 621254 3.

BACKGROUND NOTES

1. The General Household Survey is a continuous, multi-purpose survey based on a sample of the general population resident in private households in Great Britain. It has been carried out by the Social Survey Division of ONS since 1971, is commissioned by a number of Government Departments and is widely used for policy and planning purposes.
2. Interviewing took place during the period April 1998 to March 1999. For ease of reference, this note refers to 1998. Interviewers collected information from 15,853 adults aged 16 and over in 8,636 households.
3. For further information contact Ann Bridgwood on 020 7533 5303 or e-mail ann.bridgwood@ons.gov.uk or ghs@ons.gov.uk.

The ONS classification of local and health authorities of Great Britain: revised for authorities in 1999

A revised version of *The ONS classification of local and health authorities of Great Britain* was published in December 1999. It provides an indication of the characteristics of areas, and the ways in which they differ from each other.

ONS previously published a classification in 1996, based on 37 socio-economic and demographic variables from the 1991 Census. Since the original classification was produced, there have been substantial changes to the number, structure and boundaries of local and health authorities. The revised classification is for authorities as they existed at April 1999, using the same data and methodology as the original classification.

This is a general-purpose classification designed to be readily accessible to anyone involved in marketing, data-profiling, education and monitoring trends. It produces two sets of results; firstly it identifies for each local and health authority, corresponding or 'most similar' authorities and secondly it groups authorities into Families, Groups and Clusters by measuring similarities across the classification variables.

This report, a self-contained and complete source, includes the methods and results, full colour maps showing geographic patterns and 42 pen portraits of the Families, Groups and Clusters. All tables in the report are available electronically on diskette. The main results will be made available on the ONS website at www.ons.gov.uk.

For further information on the revised classification please contact Justine Fitzpatrick, Demography and Health Division, ONS, 1 Drummond Gate, London, SW1V 2QQ. Tel: 020 7533 5211 or e-mail justine.fitzpatrick@ons.gov.uk.

To obtain your copy of the report or diskette please contact ONS Direct on 01633 812078 or e-mail ons.direct@ons.gov.uk.

Recent ONS Publications

Regional Trends 34 (*The Stationery Office, September, £39.50, ISBN 0 11 621158 X*)

Abortion statistics 1998 (*The Stationery Office, September, £25, ISBN 0 11 621244 6*)

Mortality statistics 1997: general (*The Stationery Office, September, £30, ISBN 0 11 621258 6*)

Marriage, divorce and adoption statistics 1997 (*The Stationery Office, October, £30, ISBN 0 11 621256 X*)

Building trust in statistics (Cm 4412) (*The Stationery Office, October, £5.75, ISBN 0 10 144122 3*)

Britain 2000; The Official Yearbook of the United Kingdom (*The Stationery Office, November, £37.50, ISBN 0 11 621098 2*)

Cancer statistics 1993: registrations (*The Stationery Office, November, £30, ISBN 0 11 621247 0*)

Congenital anomaly statistics 1998 (*The Stationery Office, December, £30, ISBN 0 11 621250 0*)

Population Trends 98 (*The Stationery Office, December, £20, ISBN 0 11 621118 0*)

Birth Statistics 1998 (*The Stationery Office, December, £30, ISBN 0 11 621245 4*)

Food Safety in the home (Omnibus Survey) (*Office for National Statistics, £10, ISBN 1 85774 354 7*)

Mortality Statistics 1998: cause (*The Stationery Office, December, £35, ISBN 0 11 621257 8*)

Annual Abstract of Statistics 2000 (*The Stationery Office, January, £39.50, ISBN 0 11 621270 5*)

Social Trends 30 (*The Stationery Office, January, £39.50, ISBN 0 11 621242 X*)

Health indicators

England and Wales

Figure A Population change (mid-year to mid-year)

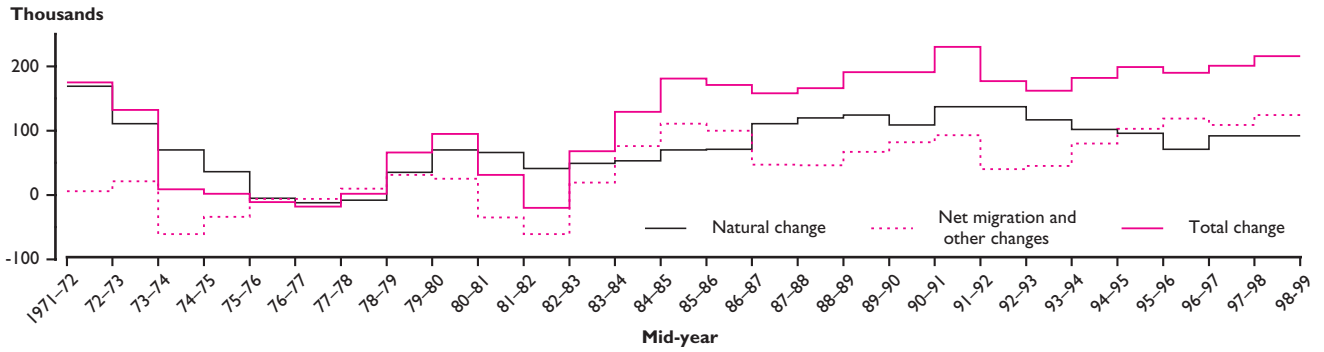


Figure B Age-standardised mortality rate

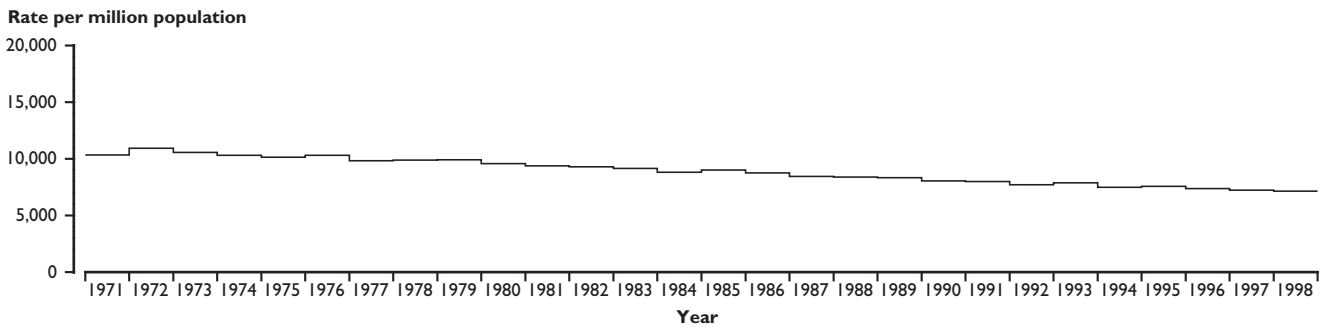


Figure C Infant mortality (under 1 year)

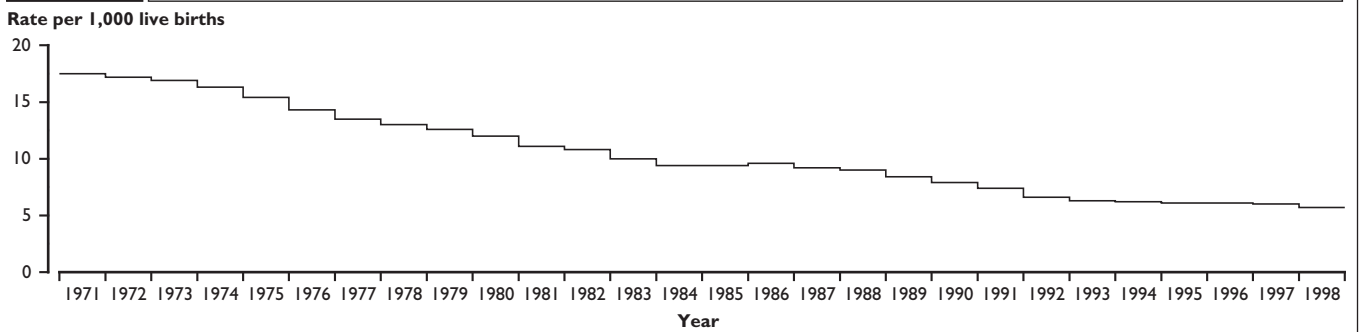
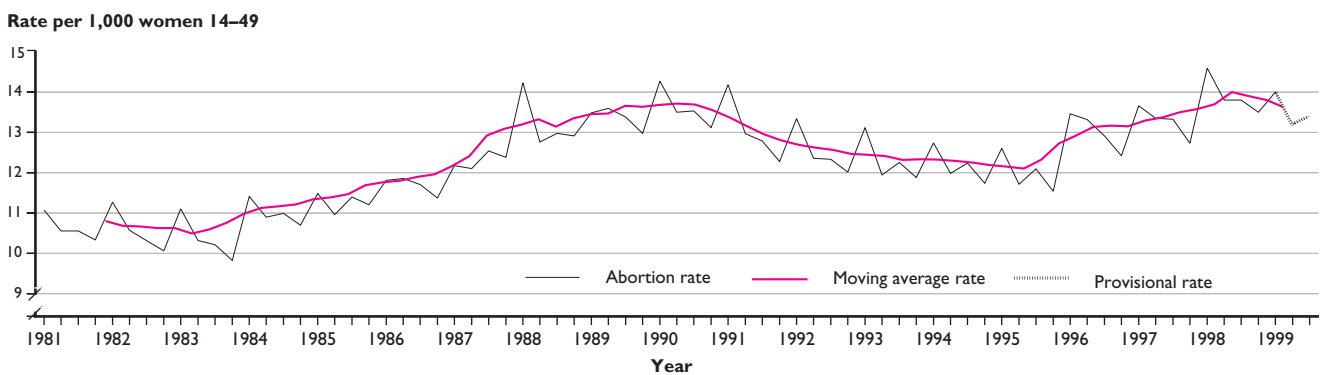


Figure D Quarterly abortion rates – residents



The impact of more complete data from Wales on the National Congenital Anomaly System

Bev Botting,
ONS

BACKGROUND

The National Congenital Anomaly System began in 1964 after the thalidomide epidemic. Its primary purpose was surveillance, to quickly detect any similar increases in notifications. At that time people were aware of the importance of monitoring anomalies, so notification was never made statutory – instead, notification was voluntary and provided by the local health area. Data are currently provided by NHS trusts on a standard ONS notification form (known as form SD56). Research estimates of the completeness of notification to the national system vary by type of anomaly, with those which are easily visible at birth being more completely notified than internal and chromosomal defects.

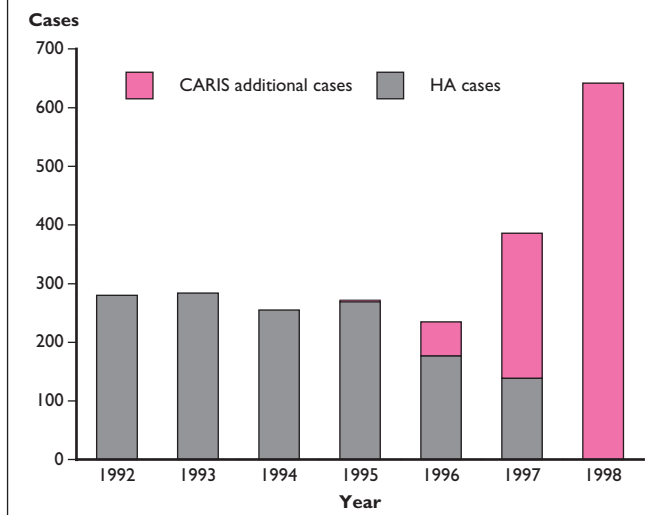
A review of the National System in 1993¹ recommended that ‘where good congenital malformation registers exist outside OPCS (now ONS), information should be exchanged with these to improve the completeness and validity of both local and national data’. A number of local registers exist, but there had never been any formal contact between these registers and ONS. The local registers have the advantage that those working in it have local knowledge, and are therefore more able to obtain data. They are also more visible to local clinicians. As a result, the local registers hold more complete data. Nevertheless, the national system still provides the best estimate of national prevalence and allows comparisons across Health Authorities.

In 1998 ONS, in collaboration with Dr David Stone from the Glasgow Register of Congenital Anomalies, began the creation and co-ordination of BINOCAR (the British Isles Network Of Congenital Anomaly Registers). Two new registers had recently obtained funding, and they were keen to work with ONS – indeed a condition of the Wales register (CARIS) funded by the Welsh Office was that they were to take over the notification to ONS of congenital anomalies for all of Wales. The

It has long been known that notification to the National Congenital Anomaly System is incomplete. A review of the system recommended that ONS should explore data exchange with local regional registers. In 1998 ONS began data exchange with a local register (known as CARIS) which covers children in Wales and collects data from several different sources. This paper reports on the impact on monitoring a step change in ascertainment using multiple source notification from the Wales register. Following data exchange with the CARIS register there appears to be a real increase in the completeness of notification between 1997 and 1998. The number of respiratory anomalies notified in 1998 was four times higher than in 1997. The number of notifications of several other anomalies doubled between these two years. These levels of notification from Wales are close to the levels expected based on previous research from ad hoc surveys.

Figure 1

Cases reported to the Office for National Statistics 1992-98 - comparison of number reported by Health Authorities and CARIS



CARIS register notifies ONS of all congenital anomalies in live or still births known to them from any source. Although CARIS formally commenced in January 1998 it also notifies ONS of additional cases of congenital anomalies not reported from previous years. This has included a substantial number of cases for South Wales collected by an earlier register based in South Wales.

This analysis is based on notifications to ONS from the CARIS register in Wales. It compares these with previous notification levels in Wales and with those in England. It discusses the impact of improvements in completeness on local surveillance and on national statistics.

RESULTS

Figure 1 shows the number of notifications to ONS from Wales and their source, between 1992 and 1998. Table 1 shows these statistics, together with the number of notifications of selected congenital anomalies from Wales, over the same period. The anomalies included are those which are regularly analysed by ONS. For several of these anomalies, previous analyses have provided estimates of the completeness of notification to ONS.

It can be seen that the number of notifications from Wales rose to 642 in 1998, 66 per cent higher than in 1997. Previously the figures had been stable since 1992. Thus, in the absence of any suggestion that there was a real increase in prevalence, there appears to be an increase in the completeness of notification between 1997 and 1998. Figure 1 shows that in 1996 and 1997 the number of notifications for Wales

Table 1

Congenital anomalies in Wales 1992-98

	1992	1993	1994	1995	1996	1997	1998	Total 1992-98
All congenital anomalies	280	283	255	272	234	387	642	2,353
Central nervous system	13	10	9	9	9	13	26	89
Neural tube defects	11	5	5	2	3	2	3	31
Eye anomalies	3	3	5	9	4	10	22	56
Cleft lip and palate	37	34	39	32	28	25	55	250
Heart and circulatory	34	32	36	35	53	93	184	467
Respiratory anomalies	3	4	5	7	1	5	22	47
Hypospadias and epispadias	20	21	13	19	14	21	23	131
Deformities of feet	20	24	27	22	23	35	49	200
Polydactyly	29	27	18	19	18	22	25	158
Syndactyly	9	15	10	13	4	10	16	77
Limb reductions	12	4	7	8	4	8	18	61
Abdominal defects	6	10	3	8	6	9	22	64
Down's syndrome	23	26	29	24	26	25	33	186

Total live and stillbirths 1992-98 37,691 36,799 35,578 34,653 35,066 34,680 33,620 248,087
National Congenital Anomaly System as at 2 September 1999.

reported by Health Authorities fell in 1997, but this was more than compensated by the number reported from the CARIS register.

This increase is seen for all the anomalies selected, but the proportional increase is larger for some groups of anomalies. Central nervous system, eye anomalies, cleft lip and palate, heart and circulatory, respiratory anomalies, limb reductions, and abdominal defects all increased in number of notifications by 100 per cent or more. Respiratory anomalies were four times higher in 1998 than in 1997. The increase in heart and circulatory anomalies followed earlier increases in the previous two years so that the number of notifications in 1998 was over five times as high as in 1995.

Table 2 compares the notification rates for Wales with the rates for England and Wales from 1992 to 1998. For England and Wales together, notification rates remained stable over this period at between 84 and 88 notifications per 10,000 live and still births. For England alone, however, the notification rate fell between 1997 and 1998 from 87 per 10,000 to 82 per 10,000. The notification rate for Wales between 1992 and 1995 was between 72 and 78 per 10,000 falling to 67 per 10,000 in 1996. In 1997 the notification rate increased to 112 per 10,000 followed by a further increase to 191 per 10,000 (i.e. two per cent of all children born in Wales were notified as having at least one congenital anomaly.)

In Table 3, rates in Wales for 1996-98 for the selected anomalies are compared with those in England and Wales as a whole and with England alone. In 1998 rates for Wales were higher than in England for all conditions except neural tube defects and hypospadias and epispadias. Rates for Wales were more than seven times as high as England for heart and circulatory anomalies, respiratory anomalies and eye anomalies (although the latter is based on very small numbers).

Table 2

Congenital anomalies in England and Wales 1996-98

Rates per 10,000 live and stillbirths

	England and Wales	England only	Wales only
1992	88.0	88.8	74.3
1993	84.9	85.4	76.9
1994	84.0	84.7	71.7
1995	85.6	86.0	78.5
1996	85.4	86.4	66.7
1997	88.2	86.8	111.6
1998	87.8	82.0	191.0

DISCUSSION

In the early and mid 1990s there were a number of administrative changes in Welsh Health Authorities and local providers. This may begin to explain why notification rates in Wales were lower than those for England. In the absence of any reason why true prevalence should be lower in Wales, this suggests that in this period notification was previously less complete for Wales than for England. Further evidence for this is given by the large increase in notifications seen in 1997 data

Table 3

Selected congenital anomalies in England and Wales 1996–98

	Rates per 10,000 live and stillbirths								
	England and Wales			England only			Wales only		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
All congenital anomalies	85.4	88.2	87.8	86.4	86.8	82.0	66.7	111.6	191.0
Central nervous system	3.8	3.3	4.0	3.9	3.3	3.8	2.6	3.7	7.7
Neural tube defects	1.3	1.3	1.4	1.4	1.3	1.5	0.9	0.6	0.9
Eye anomalies	1.2	1.1	1.2	1.2	1.0	0.9	1.1	2.9	6.5
Cleft lip and palate	8.6	8.9	9.1	8.7	9.0	8.7	8.0	7.2	16.4
Heart and circulatory	8.0	8.8	9.8	7.6	7.8	7.3	15.1	26.8	54.7
Respiratory anomalies	0.9	1.2	1.0	1.0	1.2	0.7	0.3	1.4	6.5
Hypospadias and epispadias	7.9	7.3	7.8	8.1	7.4	7.9	4.0	6.1	6.8
Deformities of feet	9.2	9.9	9.5	9.4	9.9	9.3	6.6	10.1	14.6
Polydactyly	6.7	6.6	5.8	6.7	6.6	5.7	5.1	6.3	7.4
Syndactyly	4.0	3.5	3.3	4.2	3.5	3.2	1.1	2.9	4.8
Limb reductions	3.0	2.1	3.0	3.1	2.1	2.9	1.1	2.3	5.4
Abdominal defects	2.2	2.2	2.3	2.2	2.2	2.0	1.7	2.6	6.5
Down's syndrome	5.1	5.9	5.8	5.0	5.8	5.6	7.4	7.2	9.8

as CARIS reported additional cases not previously reported. Data for 1998 showed a subsequent increase when CARIS formally began and started providing more complete notification. The particularly large increases in notification rates for heart and circulatory anomalies support this hypothesis, as we know these to be amongst the least well notified conditions to the national system.²

We plan to test this hypothesis further using 1999 data from another register. A second new register, the Trent Congenital Anomaly Register (CAR) began to notify ONS in 1998 on behalf of all health areas in Trent. Initially they only sent to ONS the information they had received from Health areas on the ONS notification forms. In 1999, however, they began complete electronic data exchange, based on multiple source ascertainment. We expect to find a similar increase in notification from this register, particularly in those previously less-well notified conditions. The problem, in analysing these data, will be to disentangle any real increases from those due to improved notification.

The ONS Surveillance routine compares current notification levels for a given condition in each local area against expected values based on previous experience in that area. Therefore, any changes in reporting practice, such as more complete notification from a regional register, will only affect the surveillance outputs from that area. All other areas will be unaffected.

Given the large increase in notification rates from Wales, alarms reflecting higher than expected prevalence occurred regularly for 1998 data. Indeed, the surveillance routine for 1998 generated 96 alarms compared with just one in 1997. These are assumed to be result of the increase in completeness of notification. It is therefore important that the surveillance programmes are quickly adjusted to these new raised levels of notification. Then any subsequent increase can be identified as a potential true increase in prevalence. Surveillance baselines change each year, so baselines in 1999 have already been partly adjusted to take on board these increases. It is our intention, however, to revise all the surveillance values for Wales at the end of 1999, based on just 1998 and 1999 data, so that the values can truly reflect the current reporting practices.

The improvements in notifications from Wales have had a small effect on the total for England and Wales as a whole. In 1996, 4 per cent of all notifications related to births in Wales. In 1998 the corresponding percentage was 11 per cent. This increase in rates in Wales in combination with the rates from English areas which have been falling slightly, has led to largely static rates for England and Wales. The

biggest proportionate increases in rates for England and Wales between 1997 and 1998 were for those conditions for which there were very large increases in notification from Wales. In particular, heart and circulatory anomalies showed an 11 per cent increase in notification rate, limb reduction defects a 43 per cent increase and central nervous system defects a 22 per cent increase.

CONCLUSION

Trent has now started multiple source electronic notification to ONS. We therefore expect to see similar increases in their notification rates for 1999 onwards. Other regional registers have indicated an interest in exchanging data electronically with ONS, so a similar increase in notification rates can be expected. We plan that the data exchange will be a two-way flow, with the national data benefiting from more complete notification, and local registers receiving in return information on any deaths of children in their register.

Whilst we are in this transition stage of improving the completeness of notification, we anticipate an impact on the local surveillance outputs and on national statistics. It is important that we are able to quantify the expected increases due to improvements in notification for given anomalies, so as to be able to follow trends in the underlying number of anomalies. Also local registers are funded in different and sometimes precarious ways. If a local register loses its funding, there must be a mechanism to restore local notification from health areas to the National System.

ONS' collaboration with Wales has demonstrated immediate benefits in improving the completeness of data. As electronic data exchange extends to cover more of England and Wales, national data will become more complete, and therefore more sensitive to real changes in prevalence. This will improve the quality of the surveillance alarms. National data will be closer to true prevalence rates so better able to be used to inform Government policy, assist in geographical comparisons, and assist in medical research.

REFERENCES

1. Office of Population Censuses and Surveys. *The OPCS Monitoring Scheme for Congenital Malformations*. Office of Population Censuses and Surveys (London: 1995).
2. Payne J N. Limitations of the OPCS Congenital Malformation Notification Scheme illustrated by the examination of congenital malformations of the cardiovascular system in Districts within the Trent Region. *Public Health* 106 (1992), 437–448.

Trends in cot deaths

Nirupa Dattani and Nicola Cooper
ONS

This article examines long-term trends in Sudden Infant Death Syndrome (SIDS) in England and Wales over the years 1971–1998, based on underlying cause of death in the postneonatal period. Variation in risk by factors such as birthweight, parity, mother’s country of birth, multiple birth status, as well as by day of the week, are also analysed, using data on all infant deaths with any mention of SIDS in the period 1993–98. This analysis shows that important differentials exist.

INTRODUCTION

In 1971, the term cot death, sudden infant death, Sudden Infant Death Syndrome (SIDS), or some similar term, was recognised as a registerable cause of death in England and Wales. Between 1971 and 1982 there was an increasing interest in and recognition of cot deaths. The cot death rate rose to 1.7 per thousand live births in 1982. This rise was in part accounted for by a transfer to the diagnosis of sudden infant death from other causes, such as unspecified respiratory diseases. Between 1988 and 1992 there was a continual fall in the annual sudden infant death rate from 2.01 to 0.63 per 1,000 live births, representing an overall fall of 69 per cent. Since 1993 the cot death rate has remained fairly stable but it still accounts for about a quarter of all deaths between 1 month and 1 year of age in England and Wales.

Several studies, using data from various countries, have shown that important differentials exist by risk factors such as birthweight, parity, mother’s country of birth and multiple birth status. These studies also showed that SIDS were more common at weekends and public holidays. This article examines whether these differentials also exist in England and Wales.

METHODS

Certification

In January 1986, a neonatal death certificate was introduced in England and Wales covering all deaths under 28 days. This followed recommendations by the World Health Organisation (WHO), in the Ninth Revision of the International Classification of Diseases (ICD9)¹, to present maternal and fetal conditions separately. While conditions arising either in the mother which affected the fetus or infant could be

mentioned on certificates prior to 1986, no provision was made for those cases in which the certifier considered that both maternal and fetal conditions contributed equally to the death. The new certificate overcomes this problem. However, since equal weighting is given to main conditions in the fetus and in the mother, it is no longer possible to identify a single underlying cause of death for neonatal deaths.

For deaths at ages 28 days and over (including postneonates), the death certificate used in England and Wales accords with that recommended by the WHO in ICD9. It is set out in two parts: Part I gives the condition or sequence of conditions leading directly to death, while Part II gives details of any associated conditions which contributed to the death, but are not part of the causal sequence. The selection of the underlying cause of death is made from the condition or conditions mentioned on the certificate. The choice is made in accordance with international procedures established by WHO, and determined in the main from the statement of the certifier².

Each year in England and Wales there are several cases where the certifier has recorded ‘Sudden Infant Death Syndrome’ (ICD 9th revision 798.0) as well as another cause on the certificate. Following the WHO rules for the ICD 9th revision mentioned earlier, any other mentioned condition, which is not ‘ill-defined’, is usually selected as the underlying cause of death. Most of the ONS infant mortality statistics for postneonatal deaths are based on the underlying cause. Table 1 shows the number of postneonatal deaths with SIDS as an underlying cause of death and SIDS as a mention on the death certificate for the years 1993 to 1998.

Identification of SIDS

For postneonates the number of deaths from SIDS can be obtained by using either the underlying cause of death or any mention on the death certificate. For neonates it has not been possible since the introduction of neonatal certificate in 1986 to obtain a single underlying cause of death. Hence the number of neonatal deaths from SIDS were based on any mention of SIDS on the certificate.

This article examines trends in postneonatal deaths with SIDS as an underlying cause of death and then examines all infant deaths with any mention of ‘SIDS’, ‘sudden infant death’, ‘cot death’ or some similar term on the certificate (coded to ICD9 798.0) by various risk factors and day of death.

Linkage of birth and death records

Apart from details about the child’s sex, area of residence and occupation of his or her parents, death records do not include the fuller range of information recorded at birth registration. For this reason,

Table 1 Postneonatal deaths with SIDS as an underlying cause of death and as a mention, England and Wales, 1993–98

Year	Underlying cause	Mention
1993	382	453
1994	365	451
1995	311	396
1996	341	424
1997	321	390
1998	229	280

ONS links death records of infants to their corresponding birth records. This provides information on birthweight, age of mother at birth of child, country of birth of mother, marital status of parents, and whether the birth was multiple or singleton. Majority of the infant deaths that are not linked are born outside England and Wales, and so do not have a birth record in this country.

RESULTS

Trends

Figure 1 indicates that about 90 per cent of SIDS occurred in the postneonatal period (ie 28 days and over) between 1986 and 1998. The neonatal mortality rate decreased by 28 per cent between 1986 (when the new neonatal death certificate was introduced) and 1998 whilst the neonatal SIDS rate in the same period fell by 62 per cent. This is shown in Table 2. This indicates that 26 per cent of the fall in the neonatal mortality rate could be due to the fall in the number of SIDS.

Figure 2 shows the postneonatal death rates by selected causes between 1971 and 1998. Between 1971 and 1988 the overall postneonatal mortality rate decreased from 5.9 to 4.1 per 1,000 live births whilst the SIDS rate increased from 0.3 to 2.0. Consequently the proportion of postneonatal deaths attributed to SIDS increased from 5 per cent to 49 per cent. The combined postneonatal mortality rate due to respiratory diseases and SIDS remained virtually constant during this period and is likely to reflect a transfer to the SIDS category of many deaths previously assigned to other respiratory conditions.

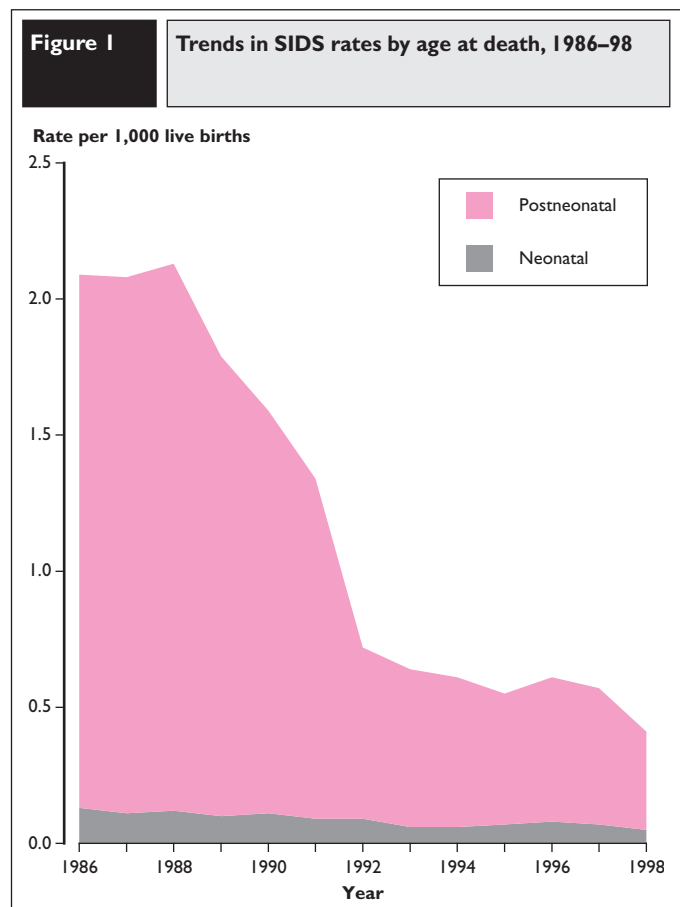


Table 2 Neonatal and sudden infant deaths, England and Wales, 1986–98

Year	Total Neonatal Deaths		Neonatal SIDS	
	Number	Rates*	Number	Rates*
1986	3489	5.3	85	0.13
1987	3448	5.1	76	0.11
1988	3421	4.9	83	0.12
1989	3272	4.8	72	0.10
1990	3221	4.6	78	0.11
1991	3052	4.4	62	0.09
1992	2955	4.3	60	0.09
1993	2796	4.2	40	0.06
1994	2749	4.1	39	0.06
1995	2698	4.2	48	0.07
1996	2645	4.1	53	0.08
1997	2517	3.9	45	0.07
1998	2410	3.8	34	0.05

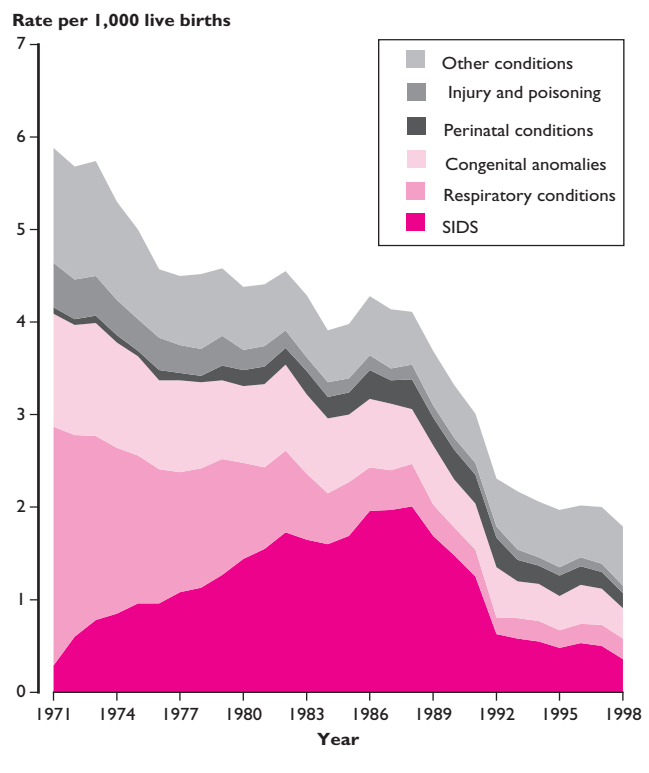
* Per 1,000 live births.

Between 1988 and 1992 there was a sharp drop in both SIDS and non-SIDS postneonatal death rates (by 69 and 21 per cent, respectively). Between 1992 and 1997 both the SIDS and postneonatal mortality rates have remained fairly stable. However, in 1998 there was a slight fall in both the SIDS and postneonatal mortality rates. The SIDS rate fell by 26 per cent (from 0.50 to 0.37 per 1,000 live births) whilst the overall postneonatal mortality rate fell by five per cent (from 1.99 to 1.90 per 1,000 live births).

Diagnostic transfer of deaths between 1997 and 1998

The postneonatal mortality rate with SIDS as the underlying cause of death decreased from 0.50 per 1,000 live births in 1997 to 0.37 per 1,000 live births in 1998 and the postneonatal mortality rate from all other causes (non-SIDS) increased from 1.49 in 1997 to 1.53 in 1998. But the total postneonatal mortality rate decreased from 1.99 in 1997 to 1.90 in 1998. This indicates that there is a diagnostic transfer from ‘SIDS’ to other causes but it is not possible to quantify it precisely. However, we can estimate the minimum transfer to other causes for postneonates if we assume that the fall in deaths from SIDS accounts

Figure 2 Postneonatal deaths by selected cause, England and Wales, 1971–98



for all of the fall in postneonatal deaths. Since SIDS fell by 0.14 deaths per 1,000 live births (90 fewer deaths in 1998 than 1997) but total postneonatal deaths only fell by 0.10 deaths per 1,000 live births (75 fewer deaths in 1998 than in 1997), a minimum of 15 deaths which were attributed to other causes in 1998 would probably have been called SIDS in the earlier year. This minimum estimate of diagnostic transfer represents one-sixth of the total fall in deaths attributed to SIDS between 1997 and 1998. The true figure is probably higher since this assumes that there was no reduction in deaths from any other cause in this period.

Table 3 Comparison of 1997 and 1998 postneonatal deaths by underlying cause of death

Cause of death	Numbers		Difference in numbers 1998–1997	Rates (per 1000 live births)		Difference in rates* 1998–1997
	1997	1998		1997	1998	
Infectious diseases	125	128	3	0.19	0.20	0.01
Neoplasms	24	22	-2	0.04	0.03	0.00
Endocrine, Nutritional and metabolic diseases and immunity disorders	31	38	7	0.05	0.06	0.01
Diseases of blood and blood-forming organs	8	7	-1	0.01	0.01	0.00
Diseases of the nervous system and sense organs	100	92	-8	0.16	0.14	-0.01
Diseases of the circulatory system	52	64	12	0.08	0.10	0.02
Diseases of the respiratory system	147	145	-2	0.23	0.23	0.00
Diseases of the digestive system	13	31	18	0.02	0.05	0.03
Congenital anomalies	251	233	-18	0.39	0.37	-0.02
Conditions originating in perinatal period	113	103	-10	0.18	0.16	-0.01
Ill-defined conditions inc. SIDS	355	281	-74	0.55	0.44	-0.11
SIDS	324	234	-90	0.50	0.37	-0.14
Unascertained	20	39	19	0.03	0.06	0.03
Injury and poisoning	58	56	-2	0.09	0.09	0.00
Total - Postneonatal deaths	1,282	1,207	-75	1.99	1.90	-0.10
Number of live births	643,095	635,921				

* Due to rounding 'the difference in rates' may not necessarily be the same as those calculated by subtracting 1997 rates from 1998 rates in the table.

Table 3 shows apparent rises in postneonatal deaths due to a range of causes in the ICD chapters covering infectious diseases; endocrine, nutritional and metabolic diseases and immunity disorders; diseases of the circulatory system; and diseases of the digestive system. Some of these may represent improved diagnosis from post-mortem investigation of deaths which would have been called SIDS in the past.

Whilst the overall death rate (and number) where the causes were 'ill-defined' showed the largest decrease in 1998, deaths from 'unknown, unascertained or ill-defined conditions' had however increased by 19 deaths (from 20 in 1997 to 39 in 1998). Some of these might have been called SIDS in the past.

Age at death

Figure 3 shows that the highest percentage of deaths occurred at ages 28 days and over but less than 2 months for the years 1994–98. In the period 1993–98, 54 per cent of sudden infant deaths occurred at ages less than 3 months and 86 per cent occurred at ages less than 6 months.

Birth weight and multiple births

Table 4 shows a wide variation in the SIDS rate between singleton and all multiple births, which narrowed over the period 1993–98. However, only 4–6 per cent of the total number of SIDS deaths for each year were multiple births. The SIDS rate for all multiple births fell by 58 per cent over the period 1993 to 1998 (from 1.6 to 0.7 per 1000 live births) compared to the singleton SIDS rate which fell by 33 per cent over the same period (from 0.7 to 0.4). However, the risk for SIDS is still twice as high for twins and higher order births than singletons.

The increased risk of SIDS in multiple gestations is lower than the increased risk of infant deaths overall. This may be because multiple births are also at much higher risk of dying from other causes such as low birthweight, prematurity, etc and hence would have a different underlying cause of death instead of SIDS.

Analysis of SIDS rate by birthweight in Table 5, shows that SIDS rates were greatest for babies weighing less than 1,500 grams and the rate was lowest for normal birthweight babies (2,500 grams or more).

A study of the incidence of SIDS in the United States showed that both low birthweight (ie less than 2,500 grams) and being one of the multiple birth increased the risk of SIDS.³

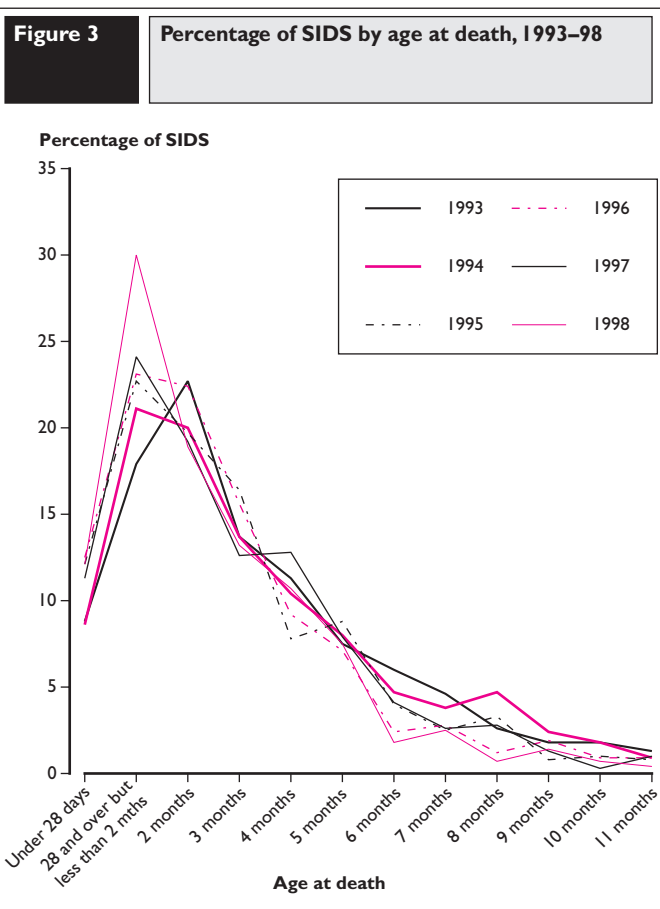


Figure 4 shows that by excluding both low birthweight and multiple birth SIDS (ie 14 per cent of the total SIDS) from the analysis the highest percentage of SIDS deaths still occurred at ages 28 days and over but less than 2 months. The overall trend for singleton, normal birthweight SIDS by age at death is the same as all SIDS by age at death. The SIDS rate for normal birthweight babies (in Table 5) was similar to that for the SIDS rate for normal birthweight singletons (in Table 6). This is not surprising as multiple births are normally of low birthweight and this increases the risk of SIDS.

Table 4 SIDS and infant mortality numbers and rates by birth type, England and Wales, 1993–98

Birth type		Year						% difference between 1993 and 1998
		1993	1994	1995	1996	1997	1998	
Number of SIDS	Total	453	451	396	424	390	280	38.2
	Singletons	426	430	371	402	371	268	37.1
	All Multiple Births	27	21	25	22	19	12	55.6
Number of Infant Deaths	Total	4,176	4,055	3,913	3,867	3,760	3,533	15.4
	Singletons	3,643	3,508	3,366	3,338	3,281	3,069	15.8
	All Multiple Births	533	547	547	529	479	464	12.9
SIDS Rate *	Total	0.67	0.68	0.61	0.65	0.61	0.44	34.8
	Singletons	0.65	0.66	0.59	0.64	0.59	0.43	33.4
	All Multiple Births	1.59	1.21	1.38	1.24	1.03	0.66	58.4
Infant Mortality Rate *	Total	6.22	6.10	6.04	5.95	5.86	5.56	10.7
	Singletons	5.57	5.42	5.34	5.28	5.26	4.97	10.8
	All Multiple Births	31.35	31.49	30.30	29.84	26.02	25.56	18.5

* Rate per 1,000 live births.

Day of the week

Results from other countries suggests that SIDS are more common at weekends than weekdays⁴. To test this hypothesis the following calculations were performed. The observed number of postneonatal deaths for the years 1993 to 1998 were obtained using the date of death. Dates for weekends and public holidays were known and hence number of postneonatal deaths by weekdays and weekends as well as public holidays were calculated. Table 7 shows the observed and expected number of deaths from SIDS, all other causes (ie non-SIDS) and all postneonates. The expected number of deaths were calculated on the assumption that there was an equal chance of SIDS occurring on a weekday as well as weekend or public holiday. By knowing the number of days for weekdays and weekends plus public holidays the proportion of SIDS for these two categories were calculated. The same method was used to calculate the expected number of deaths from all other causes and all postneonates.

This showed that more SIDS deaths were observed at weekends and public holidays than expected. However, deaths from all other causes (non-SIDS) were less likely to occur at weekends and public holidays than weekdays.

Table 5 SIDS rate* by birthweight, England and Wales, 1993-98

Year	Birthweight (grams)		
	500-1499	1500-2499	2500+
1993	2.2	2.1	0.6
1994	2.3	2.1	0.6
1995	3.3	1.9	0.5
1996	2.8	2.2	0.5
1997	2.5	2.2	0.5
1998	1.9	1.6	0.3

* Rate per 1,000 live births.

Table 6 Singleton SIDS rate* by birthweight, England and Wales, 1993-98

Year	Birthweight (grams)		
	500-1499	1500-2499	2500+
1993	2.4	2.1	0.6
1994	2.7	2.2	0.6
1995	3.2	1.9	0.5
1996	2.4	2.3	0.5
1997	3.1	2.3	0.5
1998	2.1	1.7	0.3

* Rate per 1,000 live births.

Table 7 Number of deaths from SIDS, non-SIDS and all postneonates by day of death, England and Wales, 1993-98 (combined)

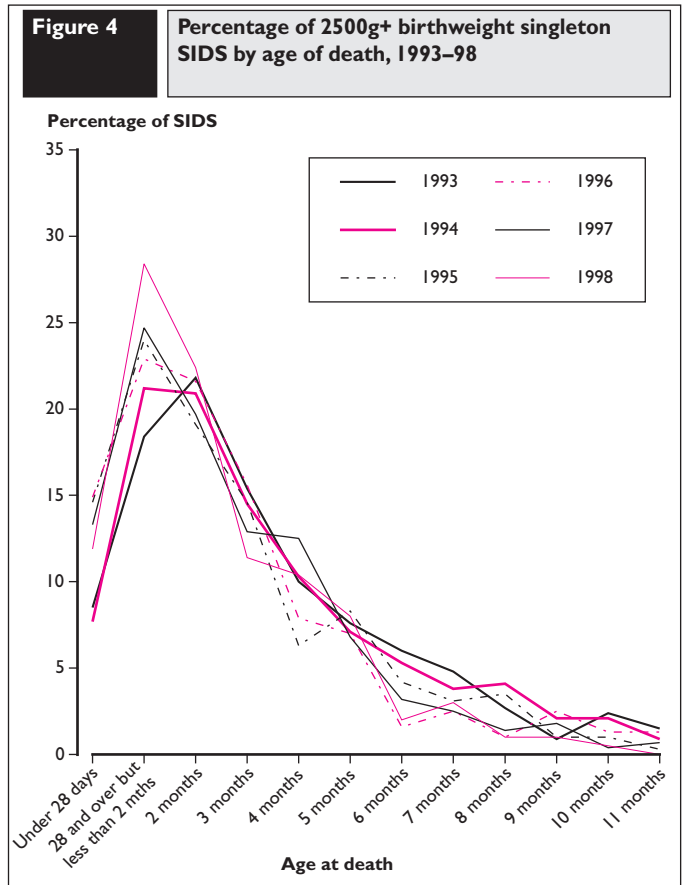
Day of death	Postneonatal SIDS		Postneonatal non-SIDS		All postneonates	
	Observed	Expected	Observed	Expected	Observed	Expected
Weekday	1,431	1,481	3,926	3,817	5,357	5,298
Weekend and public holidays	705	655	1,580	1,689	2,285	2,344
Excess number of deaths at Weekends and public holidays (Observed minus expected)		50		-109		-59

Mother's Country of Birth

Mother's country of birth is a good indicator of immigrant status (but not ethnic group). SIDS rates by mother's country of birth have not previously been calculated for individual calendar years because of the small number of deaths in each category. In Table 8, data for the years 1993-98 have been combined to calculate the SIDS rate by mother's country of birth. This shows that mothers from the Irish Republic with babies born in England and Wales experienced SIDS rate of 1 per 1,000 live births, which was 65 per cent higher than babies of mothers from the UK.

Interestingly, babies of mothers from the 'New Commonwealth' (India, Pakistan, Bangladesh, East Africa and the Caribbean) experienced SIDS rate of 0.37 per 1,000 live births, which was 42 per cent lower than babies of mothers from the UK.

Parity



Parity (the number of previous live born and stillborn children) is only collected for births inside marriage. Figure 5 shows during the period 1993 to 1998 the SIDS rates were lowest for births inside marriage. Therefore, a larger proportion of SIDS were outside marriage where no information is collected on parity. The highest SIDS rates were for births outside marriage which were sole registration. In the period 1996–97 there was an increase (of 18 per cent) in the SIDS rates outside marriage which were sole registration when there was decrease in rates in all the other groups. In comparison, there was very little change (1%) in the proportion of live births of outside marriage which were sole registrations during the period 1993–98.

Figure 6 shows that the SIDS rate increases with parity (ie the number of previous live and stillbirths inside marriage). The overall SIDS rate between 1993–98 for the first born child (where parity = 0) ranged from 0.15 to 0.26 per 1000 live births, as shown in Table 9. In 1993 the SIDS rate for mothers with three or more previous births was 68 per cent higher than mothers with two previous births. A similar increase was

also observed for the years 1994–96. But in 1997 the SIDS rate doubled for mothers with three or more previous births whereas in 1998 it was 28 per cent higher than mothers with two previous births.

The numbers for neonatal SIDS by parity were too small for any trend analysis. Analysis of postneonatal SIDS rates by parity show a similar trend to that observed in SIDS infant mortality rates.

Region

There has been a number of regional office boundary changes between 1993–98. In order to do trend analysis by region all the SIDS and postneonatal mortality data were coded to 1998 Government regional office boundaries. Three years moving averages were calculated to remove fluctuations in the SIDS data between the years 1993–98.

Figure 7 shows that the North West region consistently had the highest SIDS rates between 1993–98 whilst North Thames had the lowest SIDS rate during this period.

Table 10 shows a large variation in both the postneonatal mortality rates and the SIDS rates by year for each of the regions in the period 1993–

Table 8 Sudden infant deaths by mother's country of birth, 1993–98 (combined)

Country of birth	Numbers		Rate*
	Livebirths	SIDS	SIDS
All	3,910,759	2,394	0.61
United Kingdom	3,412,048	2,185	0.64
Irish Republic	30,274	32	1.06
Rest of European Union	53,061	31	0.58
New Commonwealth	281,539	103	0.37
Rest of World	133,837	43	0.32

* Rate per 1,000 live births.

Table 9 SIDS rates inside marriage by parity, 1993–98

Inside Marriage/Parity	1993	1994	1995	1996	1997	1998
Postneonatal Rate*						
All	0.38	0.31	0.27	0.30	0.28	0.19
0	0.20	0.19	0.16	0.15	0.16	0.12
1	0.36	0.33	0.25	0.25	0.24	0.20
2	0.58	0.40	0.39	0.49	0.39	0.25
3	0.91	0.63	0.66	0.78	0.74	0.33
Infant Mortality Rate*						
All	0.41	0.35	0.32	0.36	0.33	0.22
0	0.26	0.22	0.19	0.22	0.22	0.15
1	0.36	0.38	0.30	0.30	0.28	0.24
2	0.60	0.43	0.46	0.53	0.41	0.28
3 +	1.01	0.71	0.74	0.92	0.85	0.36

* Rate per 1,000 live births.

Figure 5 SIDS rates by type of registration, 1993–98

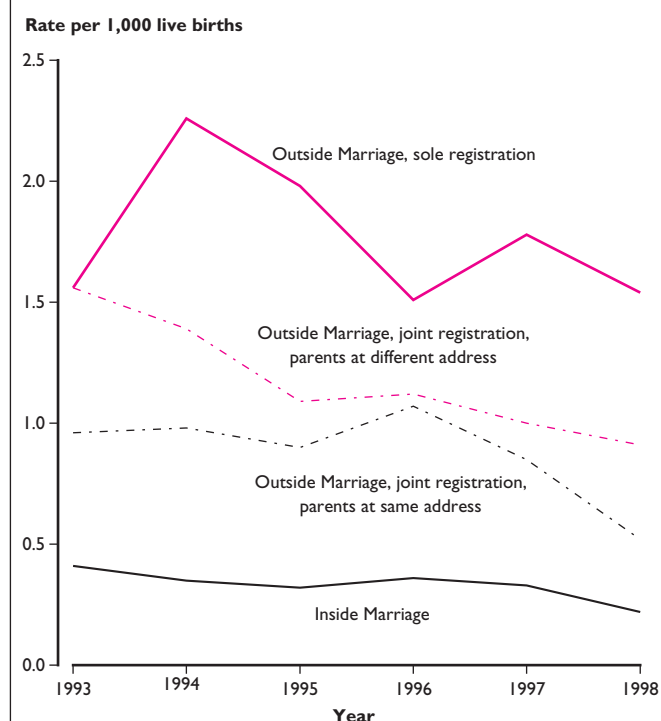


Figure 6 SIDS by parity inside marriage, 1993–98

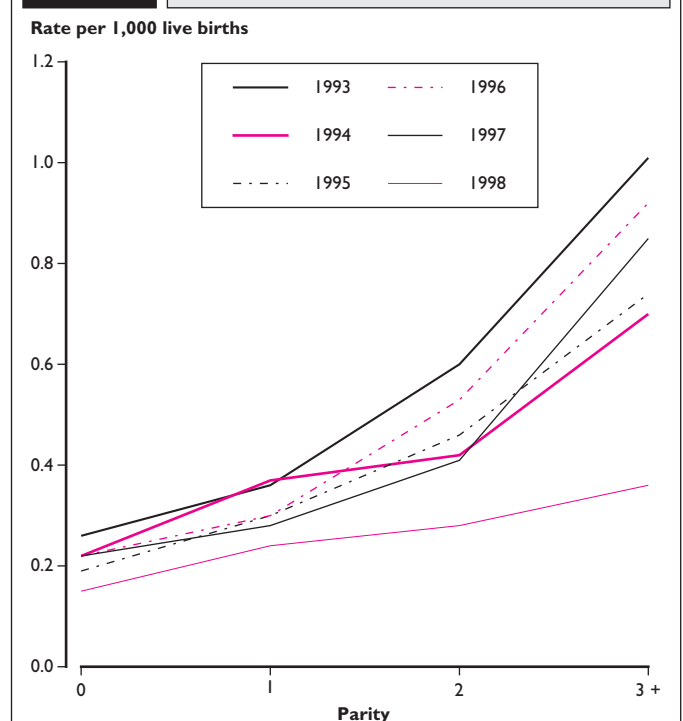
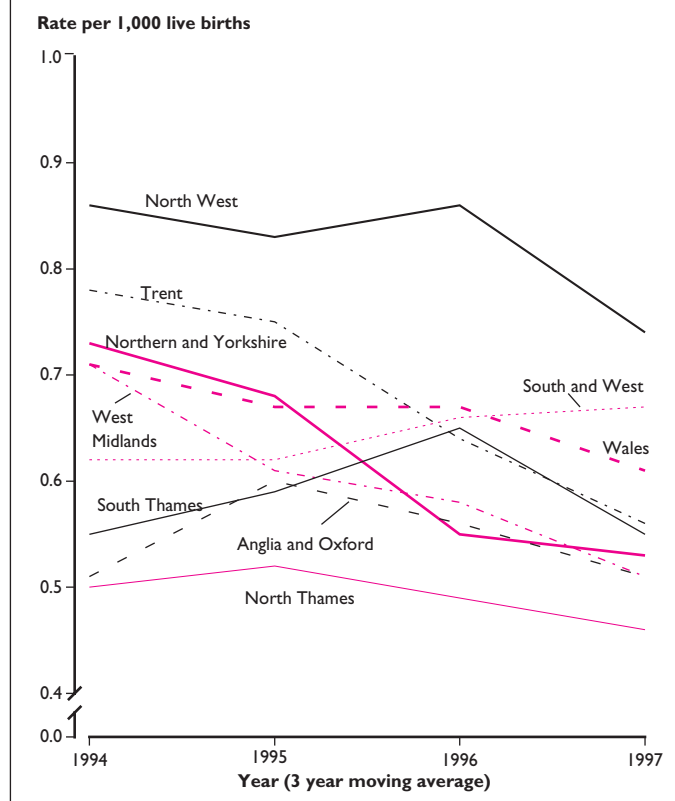


Table 10 Postneonatal and SIDS Rates* by Regional Offices, 1993–98

Regional Office	1993	1994	1995	1996	1997	1998
Postneonatal Rate*						
North West	2.47	2.24	2.45	2.36	2.41	2.17
Northern & Yorkshire	2.61	2.38	2.08	2.20	2.15	2.33
Trent	2.34	2.15	1.93	2.07	1.93	1.82
West Midlands	2.21	1.85	1.82	1.85	1.98	1.71
Anglia & Oxford	1.71	1.81	1.82	2.09	1.78	1.72
North Thames	1.81	2.17	1.79	1.66	1.89	1.79
South Thames	1.87	1.55	1.89	1.99	1.68	1.42
South & West	1.91	1.89	1.67	1.59	1.94	1.59
Wales	2.13	2.15	2.03	1.92	2.00	1.97
SIDS Rates*						
North West	0.89	0.78	0.91	0.79	0.86	0.55
Northern & Yorkshire	0.72	0.91	0.56	0.58	0.50	0.51
Trent	0.82	0.86	0.65	0.72	0.54	0.41
West Midlands	0.83	0.74	0.55	0.53	0.64	0.35
Anglia & Oxford	0.42	0.54	0.57	0.69	0.43	0.41
North Thames	0.42	0.61	0.48	0.48	0.50	0.39
South Thames	0.60	0.47	0.58	0.73	0.63	0.29
South & West	0.66	0.59	0.61	0.67	0.69	0.65
Wales	0.87	0.65	0.61	0.75	0.67	0.42

* Rate per 1,000 live births.

Figure 7 Trends in SIDS rates by Regional Office, 1994–97



98. The SIDS rate for the West Midlands regional office dropped by 58 per cent (from 0.83 to 0.35 per 1,000 livebirths) between 1993–98, whilst the postneonatal mortality rate fell by 23 per cent (from 2.21 to 1.71) for the same period. The South Thames region showed the largest decrease (54 per cent) in SIDS rate between 1997 and 1998 followed by the West Midlands (fall of 45 per cent). Northern & Yorkshire was the only region which showed an increase in the SIDS rate between 1997 and 1998 of 2 per cent. This wide variation between regions could be due in part to different post-mortem practices carried out in different regions.

CONCLUSIONS

Analysis of all infant deaths with a mention of SIDS (or some similar term) for the period 1993–98 showed that important differentials do exist in England and Wales. There is a higher risk of SIDS at ages 28 days and over but less than 2 completed months compared to all other ages. Low birthweight, high parity, multiple birth status and mothers from the Irish Republic have all shown to increase the risk of SIDS. Over 60 per cent of SIDS occur outside marriage and since 1996 there has been an increase in SIDS to single mothers.

Analysis of SIDS by day of death showed that there was an increased risk of postneonatal SIDS at weekends and public holidays than weekdays. It has been speculated that this could be the consequence of changed parental routines, changes in the environment, or the parents’ reluctance to seek help for what is believed to be a trivial illness.⁴

The SIDS rate has decreased by a third between 1993 and 1998 whilst the infant mortality rate has decreased by a fifth. This indicates that a greater proportion of infants are now dying from other (ie non-SIDS) causes of death. This could be due to changes in certification practice or better specialist post-mortems identifying other causes of death.

REFERENCES

- 1 World Health Organisation. *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, volume 1. World Health Organisation (Geneva: 1997).
- 2 Devis T and Rooney C. Death certification and the epidemiologist. *Health Statistics Quarterly* 1 (1999), 21–33.
- 3 Bigger H R, Silvestri J M, Shott S and Weese-Mayer D E. Influence of increased survival in very low birthweight, and normal birthweight infants on the incidence of sudden infant death syndrome in the United States: 1985-91. *The Journal of Pediatrics* (July 1998), 73–78.
- 4 Williams S M, Mitchell E A, Scragg R and the New Zealand National Cot Death Study Group. Why is sudden infant death syndrome more common at weekends? *Archives of Disease in Childhood* November 77(5) (1997), 415–9.

Trends in regional deprivation and mortality using the Longitudinal Study

Alison Reid,
ONS
and Seeromanie Harding,
London School of Hygiene and
Tropical Medicine

INTRODUCTION

There is evidence that inequalities in health have widened over the past decade in England and Wales.^{1,2,3,4} Very little is known about whether or not these trends differ by area. Previous research reported a widening of inequalities in health in the North of England over the period 1981–1991.⁵ Preliminary work using the Longitudinal Study showed that in each region Social Class differences in mortality (as measured by occupation) had increased for men of late working age.⁶ We have extended this work by using indices that were good discriminators of health differences at both younger and older ages and examined trends in inequality in mortality in the different regions.

METHOD

The ONS Longitudinal Study is a record linkage study of an approximately one per cent representative sample of the population of England and Wales (about 550,000 people). The initial sample, drawn from the 1971 Census, is continually updated to include new members through birth and immigration. Subsequent census and vital event information is linked to the records of study members through the National Health Service Central Register. Full details of the linkage procedure are described elsewhere.⁷

In this study, the 1981 cohort was used (see Box One). They were classified by their place of residence in 1981, and, for those who survived the first 10 years of follow-up by their place of residence in 1991. Follow-up reported here extends from Census day 1981 to the end of 1997. Using a similar approach to that of Townsend⁸ and Carstairs,⁹ a deprivation index based on individual characteristics was created for women and men of working age (26–59 and 26–64 years) in both time periods. Those aged under 26 years were excluded from the study to minimise the effects of ageing of the cohort. An index was

This paper examines trends in regional mortality using a deprivation index based on individual characteristics. Generally mortality levels and the proportions classified as deprived were lowest in the south. In 1991–97, the death rate of men aged 26–64 classified as most deprived was more than twice that of the least deprived in six of the nine regions. The level of inequality in a region (as measured by the ratio of death rate of most deprived to that of the least deprived) was not highest in the high mortality regions or lowest in the low mortality regions. Though not always statistically significant there was a consistent pattern of widening inequality and death rates between the 1980s and 1990s in most of the regions among women and men of working ages and older men. The increase in inequality in mortality was due to the consistent declines in the death rates of those least deprived and little or no decline in the death rates of those most deprived.

created dependent upon study members being in Social Class IV and V (partly skilled or unskilled) or I, II and III (professional, managerial and skilled non manual and skilled manual), living in rented or owner occupied housing, with or without household access to a car and being unemployed or employed. This was based on information provided at the 1981 and 1991 censuses. The index took four values:

- 1 (least deprived) - being social class I, II or III, in owner occupied housing, with car access and employed
- 2 - having one disadvantageous and three advantageous characteristics, eg. being unemployed, but living in owner occupied accommodation, with access to a car and being social class I, II or III
- 3 - having two disadvantageous characteristics and two advantageous characteristics, eg. being unemployed and living in rented accommodation, but having access to a car and being social class I, II, or III
- 4 (most deprived) - having at least three disadvantageous characteristics.

Box one

1981 CENSUS COHORT

The 1981 Cohort comprises all Longitudinal Study members present at the 1981 Census and traced in the National Health Service Central Register. They include those from the 1971 Cohort who survived the first ten years of follow up, new births and immigrants who entered England and Wales between 1971 and 1981 Censuses.

In the 1991 Census a '10 year' rule was applied to employment information whereby a person who had not been employed for the 10 years prior to the census was not required to supply information on their last occupation. For this or other reasons such as being a student, 4,753 men (about five per cent of the sample used in this analysis) did not have an occupation recorded in the 1991 census but had one recorded in the 1981 census. These men were allocated their 1981 social class.

A different approach was used for those of retired age. The data on economic activity and social class was poor and more than half the people in each region lived in households that did not have access to cars in 1981 or 1991. Consequently, only housing tenure was used as a measure of deprivation. People were classified as living in owner occupied, privately rented or local authority housing.

Analysis was done at the level of the standard statistical region for working age men and for retired age men and women. The numbers of deaths for working age women were small in most of the regions. The regions were therefore aggregated: South consisted of the South East, the South West and East Anglia; North of Northern, North West and Yorkshire and Humberside; and Midlands of East and West Midlands. East Anglia showed a different profile of mortality and deprivation to the South East and South West, however we merged it into the same group because of small numbers in this study. It was not appropriate to merge Wales into any of the English regions, but small numbers of deaths among working age women resulted in imprecise estimates and are therefore not shown.

Using all of the Longitudinal Study members present at the 1981 Census as the standard population, directly standardised rates¹⁰ were derived to examine patterns and trends in regional inequalities for the periods 1981–87 and 1991–97. All rates were adjusted in five-year age bands.

RESULTS

Trends in regional distribution of deprivation, working ages

Table 1 shows the distribution of deprivation by working age and region of residence at the 1981 and 1991 Censuses. Between 1981 and 1991, there was an upward shift in the distribution of deprivation in that there was a general increase across the regions in the proportions classified as least deprived and a reduction in the proportions classified as most deprived. In both censuses the highest proportions of people classified as most deprived were in the north - Northern, Yorkshire and Humberside and the North West.

Trends in regional inequality in mortality 1981–97, working ages

Men aged 26–64 years

Table 2 shows the standardised death rates in each region for working age men by deprivation score in 1981 (rates 1981–87) and in 1991 (rates 1991–97). In 1981–87 overall mortality was generally higher in regions in the north and West Midlands than elsewhere. In 1991–97 this pattern persisted but differences between regions narrowed. The East Midlands experienced the smallest decline in overall mortality, such that in the 1980s its mortality was similar to that of the South East and South West, but in the 1990s it was similar to that of the north.

As in England and Wales as a whole, higher levels of mortality were associated with deprivation in most regions in both time periods. The level of inequality in mortality in a region (as measured by the ratio of death rate of most deprived to that of the least deprived) was not related to its overall mortality ranking, in that inequalities were not largest in the high mortality regions in the north or smallest in the low mortality (southern) regions. The confidence intervals of most of the regional mortality rate ratios overlap suggesting that the differences between regions were not significant. The only significant difference was between the West Midlands and the North West in 1991–97.

There was an increase in the level of inequality in mortality for England and Wales as a whole between 1981–87 and 1991–97. This was due to the larger declines in the death rates of those least deprived than that of those most deprived. This trend of increasing inequality in mortality was reflected in most regions (West Midlands and Wales were exceptions) but was not statistically significant. The lack of statistical significance was probably due to small numbers of deaths in individual regions. In 1981–87 there was only one region (East Anglia) with a two-fold difference between the least and most deprived but in 1991–97 six of the nine regions had more than a two-fold difference. In these regions the increase was a result of significant declines in death rates of those least deprived and little or no decline in that of the most deprived. It is interesting that the East Midlands, which we noted earlier as having the smallest overall decline in mortality also showed the smallest decline in mortality of those classified as least deprived. This would explain why the increase in inequality in mortality was not as large as in other regions. In the West Midlands, on the other hand, those classified as most deprived experienced a large decline in mortality which accounted for the reduction in inequality.

Women aged 26–59 years

Table 3 shows the standardised death rates in each aggregate region and in all of England and Wales for working age women by deprivation score in 1981 (rates 1981–87) and 1991 (rates 1991–97). Patterns similar to those for men were seen. In the 1980s and 1990s, overall mortality appeared to be highest in the North and lowest in the South. There was a strong association between mortality and

Table 1 Distribution of deprivation by region of residence in 1981 and 1991 for men aged 26–64 years and women aged 26–59 years in both time periods
ONS Longitudinal Study, 1981 Cohort

Deprivation Score	Men		Women	
	1981 %	1991 %	1981 %	1991 %
South East				
1 (least deprived)	52	64	46	60
2	28	23	30	26
3	14	9	18	10
4 (most deprived)	6	4	6	4
All=100%	39,089	34,972	23,464	24,644
South West				
1 (least deprived)	54	64	50	61
2	28	24	29	27
3	13	8	17	9
4 (most deprived)	5	4	4	3
All=100%	9,275	9,374	5,271	6,753
East Midlands				
1 (least deprived)	50	63	44	58
2	28	23	31	29
3	14	9	18	9
4 (most deprived)	8	5	7	4
All=100%	8,811	8,561	5,075	6,040
West Midlands				
1 (least deprived)	48	61	43	56
2	27	24	30	29
3	16	9	19	10
4 (most deprived)	9	6	8	5
All=100%	12,354	11,240	6,921	7,628
Northern				
1 (least deprived)	38	53	38	53
2	29	26	27	27
3	19	11	21	13
4 (most deprived)	14	10	14	7
All=100%	6,927	6,213	3,872	4,358
Yorkshire & Humberside				
1 (least deprived)	46	58	41	56
2	27	24	29	28
3	17	11	20	11
4 (most deprived)	10	7	10	5
All=100%	11,045	9,931	6,310	7,021
North West				
1 (least deprived)	50	61	44	58
2	25	23	29	27
3	15	9	18	9
4 (most deprived)	10	7	9	6
All=100%	14,374	12,639	8,658	9,048
East Anglia				
1 (least deprived)	52	63	44	58
2	28	24	32	30
3	14	9	18	9
4 (most deprived)	6	4	6	3
All=100%	4,139	4,136	2,185	2,880
Wales				
1 (least deprived)	49	60	44	57
2	28	25	30	29
3	15	9	19	10
4 (most deprived)	8	6	7	4
All=100%	5,926	5,516	3,197	3,764
All England and Wales				
1 (least deprived)	50	62	44	58
2	27	24	30	27
3	15	9	18	10
4 (most deprived)	8	5	8	4
All=100%	112,414	102,588	65,206	72,142

deprivation in each region. There was a non-significant increase in the level of inequalities between the least and the most deprived in the North and the South.

The South East region was the only region for working age women where the numbers of deaths were sufficient to allow further examination. The ratio of the death rates of the most deprived versus that of the least deprived increased from 1.77 (95% CI 1.25–2.49, deaths 364) in 1981–87 to 2.26 (95% CI 1.43–3.57, deaths 271) in 1991–97.

Trends in regional distribution of deprivation, retired ages

Table 4 shows the distribution of deprivation as measured by housing tenure for those of retired age by region of residence and for all of England and Wales at the 1981 and 1991 Censuses. In England and Wales as a whole, the proportion of people in rented housing fell between 1981 and 1991, a feature which was reflected in each region. Among both men and women, the Northern and Yorkshire and Humberside regions had the greatest proportion of people in local authority housing, and the South West the greatest proportion of owner occupied housing in both the 1981 and 1991 Censuses.

Trends in regional inequality in mortality 1981–97, retired ages

Tables 5 and 6 show the standardised death rates in each region for retired age men and women by housing tenure in 1981 (rates 1981–87) and 1991 (rates 1991–97). In both time periods and for both men and women, mortality rates were highest in the Northern, North West and Yorkshire and Humberside regions, and lowest in the South West, South East and East Anglia. In most regions and in both time periods, mortality was lowest among those living in owner occupied housing and highest in those living in local authority housing.

In terms of trends there was an increase in inequality in mortality (as measured by the ratio of death rates of those in local authority housing to that of those in owner occupied housing) among all men in England and Wales. This trend was reflected in seven of the nine regions, the South East and Northern regions being the exceptions. For women in England and Wales as a whole the change in the level of inequality was marginal. The trend varied across the regions with increases in four, little or no change in four and a decrease in one. These changes were not significant.

Among both men and women, although death rates in most housing tenures fell in the high mortality regions, (Northern, Northwest and Yorkshire and Humberside) they remained generally higher in 1991–97 than those of people in the corresponding groups in the South East, South West and East Anglia.

DISCUSSION

Considerable evidence exists about inequalities in health at a national level^{1,2,3,4} and about spatial polarisation in health,^{11,12} but little is known about inequalities in health within areas. This study used individual level data to examine the relationship between mortality and deprivation in each region of England and Wales. The proportions classified as least deprived increased between 1981 and 1991 in each region. In spite of this improvement the North/South disparity remained in that lower proportions were generally classified as most deprived in the Southernmost regions. Inequality in death rates appeared to increase in most of the regions among men and women of working ages and men of retired ages. Death rates of the most affluent fell in every region but

Table 2

Directly standardised death rates* (95% confidence intervals) 1981-87 and 1991-97, per 1000 persons among men aged 26-64 years, in both time periods, by deprivation score and region.

ONS Longitudinal Study, 1981 Cohort

Deprivation Score	Region in 1981	95% confidence intervals	Region in 1991	95% confidence intervals	% difference
	1981-87		1991-97		
South East					
1 (least deprived)	30	(27 - 32)	23	(21 - 25)	-23
2	40	(37 - 44)	30	(27 - 34)	-25
3	43	(38 - 48)	44	(37 - 51)	1
4 (most deprived)	48	(41 - 56)	55	(44 - 67)	14
Rate Ratio	1.61	(1.34 - 1.94)	2.41	(1.90 - 3.05)	
Death rate for region	36	(34 - 38)	28	(27 - 30)	-22
Total deaths	1344		871		
South West					
1 (least deprived)	34	(29 - 39)	22	(18 - 26)	-36
2	44	(36 - 51)	29	(22 - 36)	-33
3	48	(37 - 59)	38	(24 - 52)	-20
4 (most deprived)	53	(33 - 74)	51	(26 - 76)	-4
Rate Ratio	1.56	(1.02 - 2.38)	2.35	(1.35 - 4.10)	
Death rate for region	40	(36 - 44)	26	(23 - 30)	-34
Total deaths	349		217		
East Midlands					
1 (least deprived)	36	(30 - 42)	33	(28 - 39)	-8
2	39	(31 - 46)	33	(24 - 41)	-16
3	53	(41 - 64)	52	(36 - 68)	-2
4 (most deprived)	53	(37 - 69)	56	(35 - 78)	7
Rate Ratio	1.47	(1.02 - 2.10)	1.70	(1.10 - 2.62)	
Death rate for region	40	(36 - 45)	36	(32 - 41)	-10
Total deaths	327		258		
West Midlands					
1 (least deprived)	37	(31 - 42)	27	(23 - 32)	-25
2	45	(38 - 52)	26	(20 - 33)	-42
3	58	(49 - 68)	37	(26 - 48)	-37
4 (most deprived)	67	(53 - 80)	34	(19 - 48)	-49
Rate Ratio	1.82	(1.40 - 2.36)	1.25	(.79 - 1.97)	
Death rate for region	46	(42 - 50)	28	(25 - 32)	-39
Total deaths	532		275		
Northern					
1 (least deprived)	38	(30 - 47)	19	(14 - 24)	-50
2	40	(33 - 51)	33	(23 - 42)	-19
3	58	(45 - 70)	41	(26 - 57)	-28
4 (most deprived)	54	(41 - 67)	56	(36 - 75)	3
Rate Ratio	1.42	(1.02 - 1.99)	2.95	(1.87 - 4.65)	
Death rate for region	46	(41 - 52)	30	(25 - 34)	-36
Total deaths	290		152		
Yorkshire & Humberside					
1 (least deprived)	41	(34 - 47)	21	(16 - 25)	-49
2	46	(38 - 53)	36	(28 - 43)	-22
3	43	(43 - 52)	39	(27 - 51)	-8
4 (most deprived)	59	(46 - 72)	52	(36 - 68)	-12
Rate Ratio	1.45	(1.10 - 1.91)	2.53	(1.73 - 3.70)	
Death rate for region	44	(40 - 48)	30	(26 - 33)	-33
Total deaths	461		250		
North West					
1 (least deprived)	36	(31 - 41)	23	(20 - 27)	-35
2	49	(42 - 56)	31	(24 - 37)	-38
3	53	(44 - 62)	42	(30 - 54)	-21
4 (most deprived)	60	(48 - 72)	66	(50 - 83)	11
Rate Ratio	1.66	(1.30 - 2.12)	2.82	(2.07 - 3.86)	
Death rate for region	45	(42 - 49)	30	(27 - 34)	-33
Total deaths	597		321		
East Anglia					
1 (least deprived)	31	(23 - 39)	20	(14 - 26)	-35
2	37	(26 - 47)	38	(26 - 50)	4
3	50	(33 - 67)	32	(14 - 49)	-37
4 (most deprived)	77	(49 - 106)	57	(19 - 95)	-26
Rate Ratio	2.50	(1.56 - 4.01)	2.82	(1.33 - 6.01)	
Death rate for region	39	(33 - 45)	27	(22 - 33)	-30
Total deaths	156		100		
Wales					
1 (least deprived)	34	(27 - 41)	28	(22 - 35)	-16
2	41	(31 - 50)	27	(18 - 37)	-33
3	38	(26 - 50)	31	(14 - 48)	-20
4 (most deprived)	53	(32 - 75)	38	(14 - 62)	-28
Rate Ratio	1.58	(.99 - 2.52)	1.35	(0.70 - 2.62)	
Death rate for region	38	(33 - 43)	29	(23 - 34)	-25
Total deaths	208		126		
All England and Wales					
1 (least deprived)	34	(32 - 35)	24	(23 - 25)	-29
2	43	(40 - 45)	31	(29 - 33)	-27
3	48	(45 - 51)	41	(37 - 45)	-14
4 (most deprived)	56	(52 - 61)	53	(47 - 59)	-5
Rate Ratio	1.66	(1.51 - 1.83)	2.22	(1.95 - 2.53)	
Death rate for all	41	(40 - 42)	29	(28 - 30)	-28
Total deaths	4,269		2,570		

* Reference population=All Longitudinal Study men present at 1981 Census aged 26-64.

Table 3

Directly standardised death rates* (95% confidence intervals) 1981–87 and 1991–97, per 1000 persons among women aged 26–59 years, in both time periods, by deprivation score and region† ONS Longitudinal Study, 1981 Cohort

Deprivation Score	Region in 1981	95% confidence intervals	Region in 1991	95% confidence intervals	% difference
	1981–87		1991–97		
South					
1 (least deprived)	12	(10 - 14)	10	(8 - 11)	-21
2	15	(13 - 18)	12	(10 - 15)	-19
3	19	(15 - 22)	16	(11 - 20)	-17
4 (most deprived)	24	(18 - 30)	23	(15 - 32)	-3
Rate Ratio	1.97	(1.45 - 2.68)	2.41	(1.62 - 3.59)	
Death rate for South	15	(14 - 16)	11	(10 - 13)	-24
Total deaths	462		361		
Midlands					
1 (least deprived)	13	(10 - 17)	12	(9 - 14)	-12
2	18	(14 - 22)	13	(9 - 16)	-30
3	22	(16 - 27)	13	(7 - 20)	-38
4 (most deprived)	25	(16 - 34)	22	(10 - 34)	-12
Rate Ratio	1.88	(1.20 - 2.94)	1.87	(1.02 - 3.44)	
Death rate for Midlands	17	(15 - 20)	13	(11 - 15)	-28
Total deaths	206		157		
North					
1 (least deprived)	14	(11 - 16)	11	(8 - 13)	-21
2	20	(16 - 24)	15	(11 - 18)	-27
3	21	(17 - 26)	16	(11 - 22)	-23
4 (most deprived)	25	(19 - 32)	26	(17 - 36)	4
Rate Ratio	1.87	(1.35 - 2.58)	2.46	(1.63 - 3.70)	
Death rate for North	19	(17 - 20)	14	(12 - 15)	-26
Total deaths	345		244		
All England and Wales					
1 (least deprived)	13	(12 - 14)	10	(9 - 11)	-19
2	17	(15 - 19)	13	(11 - 15)	-24
3	20	(17 - 22)	15	(12 - 18)	-23
4 (most deprived)	24	(20 - 28)	25	(19 - 30)	0
Rate Ratio	1.89	(1.55 - 2.29)	2.34	(1.82 - 3.00)	
Death rate for all	17	(16 - 18)	12	(11 - 13)	-25
Total deaths	1,067		808		

* Reference population=All Longitudinal Study women present at 1981 Census aged 26–59.

† Wales omitted due to small numbers, East Anglia included in South and Yorkshire & Humberside in North.

in some regions those classified as most deprived experienced little or no decline. The size of inequality in mortality did not differ significantly between regions.

Wilkinson^{13,14} posits that ‘health is worse when there is greater inequality across the social gradient’. Wilkinson’s theory is primarily concerned with income disparity. Income is not asked at the Census so a direct assessment was not possible, but this approach may be relevant in understanding why the level of inequality is not necessarily smallest in low mortality areas. On the other hand, McIntyre¹⁵ proposes that the context of where someone lives may explain the persisting health inequalities between the rich and the poor. She argues that in ‘less affluent’ areas, access to services is more difficult, leisure facilities are fewer, transport is worse, social and physical environments are harsher and ‘good’ food is more expensive and more difficult to obtain than in more affluent areas. At older ages death rates in every deprivation category in the north remained higher than in the same category in the south, which would lend some support to this assertion of contextual disadvantage.

Some of the increase in the proportion of people classified as affluent between 1981 and 1991 may have been due to the sale of council

houses. Housing tenure in 1981 may have captured prosperity better than in 1991 as the Right to Buy legislation allowed the purchase of public sector homes by tenants who previously may have been excluded from owner occupied status. However, it is unlikely to have had a substantial effect on mortality for those of working ages in the most affluent category, as being ‘most affluent’ was dependent on having other characteristics in the summed score. It may have had a greater impact on the mortality rates of those who remained in the deprived categories, renting poorer condition housing stock.¹⁶ A corollary of this is that those who were classified in our most deprived category in 1991 may have been even more deprived than those so classified in 1981.

A caveat of the current work is that the measure of inequality was derived using the extremes of the distribution (death rate of the least deprived versus the most deprived) and we acknowledge that this may have exaggerated the levels of overall mortality inequality in the regions. In the context of the current debate on social exclusion, it is however useful to compare these groups to examine how specific disadvantaged groups fare. Another important caveat is that regions are not homogenous entities. Work in progress is examining differences across local areas in more detail.¹⁷

Table 4

Distribution of housing tenure status by region of residence in 1981 and 1991 for men aged 65 plus and women aged 60 plus in both time periods

ONS Longitudinal Study, 1981 Cohort

Housing tenure status	Men		Women	
	1981 %	1991 %	1981 %	1991 %
South East				
Owner Occupied	58	66	55	64
Private Rented	15	8	16	9
Local Authority Rented	27	26	29	27
All=100%	10,169	9,714	20,037	18,252
South West				
Owner Occupied	68	75	64	72
Private Rented	11	6	12	6
Local Authority Rented	21	19	24	22
All=100%	3,100	3,228	6,056	5,891
East Midlands				
Owner Occupied	55	65	53	64
Private Rented	13	6	13	6
Local Authority Rented	32	29	34	30
All=100%	2,265	2,436	4,307	4,328
West Midlands				
Owner Occupied	54	65	52	63
Private Rented	11	6	11	6
Local Authority Rented	35	29	37	31
All=100%	2,939	3,056	5,637	5,607
Northern				
Owner Occupied	44	55	40	63
Private Rented	14	6	15	7
Local Authority Rented	41	38	45	40
All=100%	1,754	1,788	3,674	3,527
Yorkshire & Humberside				
Owner Occupied	52	62	47	58
Private Rented	12	6	14	7
Local Authority Rented	36	32	39	35
All=100%	2,929	2,993	5,865	5,621
North West				
Owner Occupied	57	68	54	62
Private Rented	13	6	13	7
Local Authority Rented	30	26	33	31
All=100%	3,752	3,623	8,141	7,152
East Anglia				
Owner Occupied	60	67	58	64
Private Rented	12	8	12	8
Local Authority Rented	28	25	30	28
All=100%	1,246	1,364	2,314	2,423
Wales				
Owner Occupied	64	75	60	69
Private Rented	9	5	10	5
Local Authority Rented	27	20	30	26
All=100%	1,727	1,851	3,552	3,419
All England and Wales				
Owner Occupied	57	66	54	64
Private Rented	13	7	14	7
Local Authority Rented	30	27	32	29
All=100%	29,940	30,053	59,689	56,222

CONCLUSION

Between the 1980s and 1990s although mortality and deprivation levels fell in each region they remained highest in the North. The level of inequality in mortality in a region was not highest in the high mortality regions or lowest in the low mortality regions. There was a trend of widening inequality in mortality in most of the regions among men and women of working age and men of retired age but it was not statistically significant. The lack of statistical significance was possibly due to small numbers of deaths. Work in progress is using one hundred percent national data to examine geographic inequalities and though limited by issues related to the use of cross sectional data the numbers are larger and will provide a test for reliability of the results presented in this paper. Further work will examine whether migration between regions has influenced these trends.

Key points

- In 1991–97 overall mortality and the proportions classified as deprived was generally lowest in the south.
- In 1991–97, the death rates of men aged 26–64 classified as most deprived were more than twice that of those classified as least deprived in six of the nine regions.
- Inequality in mortality widened in most regions between 1981–87 and 1991–97 among women and men of working ages and older men.

REFERENCES

- 1 Hattersley L. Expectation of life by social class. In: Drever F and Whitehead M (eds.) *Health Inequalities*. TSO (London: 1997).
- 2 Harding S, Bethune A, Maxwell R and Brown J. Mortality trends using the Longitudinal Study. In: Drever F and Whitehead M (eds.) *Health Inequalities*. TSO (London: 1997).
- 3 Smith J and Harding S. Mortality of women and men using alternative social classifications. In: Drever F and Whitehead M (eds.) *Health Inequalities*. TSO (London: 1997).
- 4 Drever F and Bunting, J. Patterns and trends in male mortality. In: Drever F and Whitehead M (eds.) *Health Inequalities*. TSO (London: 1997).
- 5 Phillimore P, Beattie A and Townsend P. Widening inequality of health in northern England, 1981–91. *British Medical Journal* 308 (1994), 1125–1128.
- 6 Rosato M, Harding S, McVey E and Brown J. Research implications of improvements in access to the ONS Longitudinal Study. *Population Trends* 91 (1998), 35–42.
- 7 Hattersley L and Creeser R. *Longitudinal Study 1971-1991. History, organisation and quality of data LS 7*. HMSO (London: 1995).
- 8 Townsend P, Phillimore P and Beattie A. *Health and Deprivation: Inequality and the North*. Croom Helm (London: 1988).
- 9 Morris R and Carstairs V. Which deprivation? A comparison of selected deprivation indexes. *Journal of Public Health Medicine* 13(4) (1991), 318–326.

Table 5

Directly standardised death rates* (95% confidence intervals) 1981–87 and 1991–97, per 1,000 persons among men aged 65 plus years, in both time periods, by housing tenure and region

ONS Longitudinal Study, 1981 Cohort

Housing tenure status	Region in 1981	95% confidence intervals	Region in 1991	95% confidence intervals	% difference
	1981–87		1991–97		
South East					
Owner Occupied	364	(352 - 375)	317	(306 - 327)	-13
Private Rented	404	(381 - 427)	385	(352 - 418)	-5
Local Authority Rented	434	(416 - 451)	385	(367 - 403)	-11
Rate Ratio	1.19	(1.11 - 1.28)	1.22	(1.13 - 1.31)	
Death rate for region	389	(380 - 398)	340	(331 - 349)	-13
Total deaths	3,972		3,514		
South West					
Owner Occupied	361	(342 - 381)	312	(295 - 330)	-14
Private Rented	388	(338 - 438)	373	(308 - 437)	-4
Local Authority Rented	431	(395 - 467)	398	(360 - 437)	-8
Rate Ratio	1.19	(1.04 - 1.37)	1.28	(1.11 - 1.47)	
Death rate for region	380	(364 - 396)	333	(317 - 348)	-12
Total deaths	1,187		1,152		
East Midlands					
Owner Occupied	363	(337 - 389)	332	(310 - 354)	-8
Private Rented	420	(367 - 473)	374	(305 - 443)	-11
Local Authority Rented	417	(383 - 452)	406	(370 - 442)	-3
Rate Ratio	1.15	(.99 - 1.33)	1.22	(1.06 - 1.41)	
Death rate for region	389	(369 - 410)	356	(337 - 374)	-9
Total deaths	876		899		
West Midlands					
Owner Occupied	387	(365 - 410)	337	(317 - 357)	-13
Private Rented	442	(389 - 495)	395	(325 - 464)	-11
Local Authority Rented	454	(425 - 483)	429	(397 - 460)	-6
Rate Ratio	1.17	(1.04 - 1.32)	1.27	(1.12 - 1.44)	
Death rate for region	418	(401 - 435)	367	(351 - 383)	-12
Total deaths	1,198		1,147		
Northern					
Owner Occupied	409	(376 - 441)	363	(334 - 392)	-11
Private Rented	421	(364 - 478)	392	(303 - 482)	-7
Local Authority Rented	468	(432 - 504)	417	(380 - 453)	-11
Rate Ratio	1.15	(.98 - 1.34)	1.15	(.98 - 1.34)	
Death rate for region	436	(414 - 459)	385	(363 - 407)	-12
Total deaths	758		698		
Yorkshire & Humberside					
Owner Occupied	392	(369 - 415)	325	(305 - 345)	-17
Private Rented	485	(437 - 533)	441	(368 - 514)	-9
Local Authority Rented	456	(427 - 484)	450	(419 - 480)	-1
Rate Ratio	1.16	(1.03 - 1.31)	1.38	(1.22 - 1.57)	
Death rate for region	428	(411 - 445)	371	(354 - 387)	-13
Total deaths	1,230		1,132		
North West					
Owner Occupied	418	(398 - 438)	352	(334 - 370)	-16
Private Rented	416	(374 - 458)	457	(392 - 523)	10
Local Authority Rented	484	(456 - 511)	462	(430 - 493)	-5
Rate Ratio	1.16	(1.04 - 1.29)	1.31	(1.17 - 1.47)	
Death rate for region	439	(423 - 454)	386	(371 - 400)	-12
Total deaths	1,607		1,430		
East Anglia					
Owner Occupied	358	(325 - 392)	326	(297 - 354)	-9
Private Rented	400	(331 - 470)	283	(201 - 365)	-29
Local Authority Rented	378	(330 - 426)	386	(337 - 434)	2
Rate Ratio	1.06	(.86 - 1.30)	1.18	(.97 - 1.44)	
Death rate for region	372	(347 - 398)	339	(316 - 363)	-9
Total deaths	469		488		
Wales					
Owner Occupied	411	(384 - 439)	346	(322 - 370)	-16
Private Rented	479	(407 - 551)	451	(354 - 547)	-6
Local Authority Rented	454	(410 - 498)	404	(355 - 453)	-11
Rate Ratio	1.10	(.94 - 1.30)	1.17	(.98 - 1.40)	
Death rate for region	430	(408 - 452)	364	(343 - 385)	-15
Total deaths	721		689		
All England and Wales					
Owner Occupied	380	(373 - 387)	330	(325 - 336)	-13
Private Rented	421	(407 - 436)	398	(377 - 418)	-6
Local Authority Rented	447	(437 - 456)	414	(403 - 424)	-7
Rate Ratio	1.18	(1.13 - 1.22)	1.26	(1.20 - 1.31)	
Death rate for all	406	(400 - 411)	356	(351 - 361)	-12
Total deaths	12,031		11,149		

* Reference population=All Longitudinal Study men present at 1981 Census aged 65 plus.

Table 6

Directly standardised death rates* (95% confidence intervals) 1981-87 and 1991-97, per 1,000 persons among women aged 60 plus years, in both time periods, by housing tenure and region

ONS Longitudinal Study, 1981 Cohort

Housing tenure status	Region in 1981	95% confidence intervals	Region in 1991	95% confidence intervals	% difference
	1981-87		1991-97		
South East					
Owner Occupier	229	(222 - 236)	214	(207 - 220)	-7
Private Renter	262	(248 - 275)	240	(220 - 259)	-8
Local Authority Renter	281	(270 - 292)	261	(249 - 272)	-7
Rate Ratio	1.23	(1.15 - 1.31)	1.22	(1.14 - 1.30)	
Death rate for region	249	(244 - 255)	228	(223 - 234)	-8
Total deaths	4,900		4,448		
South West					
Owner Occupier	227	(216 - 239)	197	(186 - 208)	-13
Private Renter	248	(220 - 276)	208	(172 - 242)	-16
Local Authority Renter	276	(254 - 298)	259	(237 - 282)	-6
Rate Ratio	1.21	(1.08 - 1.37)	1.31	(1.16 - 1.48)	
Death rate for region	241	(232 - 251)	212	(203 - 221)	-12
Total deaths	1,447		1,294		
East Midlands					
Owner Occupier	253	(236 - 270)	224	(209 - 238)	-12
Private Renter	284	(250 - 319)	270	(219 - 321)	-5
Local Authority Renter	295	(274 - 317)	263	(241 - 286)	-11
Rate Ratio	1.17	(1.02 - 1.33)	1.18	(1.03 - 1.34)	
Death rate for region	271	(259 - 284)	237	(226 - 249)	-12
Total deaths	1,107		1,039		
West Midlands					
Owner Occupier	240	(225 - 254)	224	(211 - 237)	-6
Private Renter	253	(222 - 285)	229	(186 - 272)	-10
Local Authority Renter	310	(291 - 328)	274	(254 - 293)	-12
Rate Ratio	1.29	(1.16 - 1.45)	1.22	(1.09 - 1.37)	
Death rate for region	267	(256 - 278)	238	(227 - 248)	-11
Total deaths	1,398		1,318		
Northern					
Owner Occupier	281	(260 - 303)	225	(207 - 243)	-20
Private Renter	289	(254 - 324)	291	(236 - 346)	1
Local Authority Renter	321	(299 - 342)	296	(274 - 318)	-8
Rate Ratio	1.14	(1.00 - 1.30)	1.31	(1.14 - 1.51)	
Death rate for region	300	(286 - 314)	259	(245 - 272)	-14
Total deaths	1,041		878		
Yorkshire & Humberside					
Owner Occupier	247	(232 - 262)	225	(212 - 239)	-9
Private Renter	278	(250 - 306)	255	(215 - 294)	-8
Local Authority Renter	308	(290 - 325)	278	(259 - 296)	-10
Rate Ratio	1.25	(1.12 - 1.39)	1.23	(1.10 - 1.38)	
Death rate for region	275	(264 - 285)	246	(235 - 256)	-11
Total deaths	1,522		1,381		
North West					
Owner Occupier	267	(255 - 279)	234	(222 - 245)	-12
Private Renter	274	(251 - 297)	268	(231 - 304)	-2
Local Authority Renter	299	(283 - 315)	292	(274 - 310)	-2
Rate Ratio	1.12	(1.02 - 1.23)	1.25	(1.14 - 1.38)	
Death rate for region	279	(270 - 288)	254	(245 - 263)	-9
Total deaths	2,206		1,867		
East Anglia					
Owner Occupier	237	(215 - 258)	203	(184 - 221)	-14
Private Renter	283	(238 - 327)	241	(187 - 295)	-15
Local Authority Renter	278	(248 - 309)	244	(215 - 273)	-12
Rate Ratio	1.18	(.98 - 1.41)	1.20	(1.00 - 1.45)	
Death rate for region	257	(240 - 273)	217	(203 - 232)	-15
Total deaths	570		535		
Wales					
Owner Occupier	274	(256 - 291)	215	(200 - 231)	-21
Private Renter	302	(257 - 346)	272	(210 - 333)	-10
Local Authority Renter	287	(261 - 312)	269	(242 - 297)	-6
Rate Ratio	1.05	(.91 - 1.21)	1.25	(1.07 - 1.45)	
Death rate for region	282	(268 - 296)	232	(219 - 245)	-18
Total deaths	945		799		
All England and Wales					
Owner Occupier	244	(239 - 248)	217	(213 - 221)	-11
Private Renter	269	(260 - 278)	248	(236 - 261)	-8
Local Authority Renter	294	(288 - 300)	272	(272 - 278)	-8
Rate Ratio	1.21	(1.17 - 1.25)	1.25	(1.21 - 1.30)	
Death rate for all	263	(260 - 267)	235	(231 - 238)	-11
Total deaths	15,155		13,560		

* Reference population=All Longitudinal Study women present at 1981 Census aged 60 plus.

- 10 Bunting, J. Sources and Methods. In: Drever F and Whitehead M (eds.) *Health Inequalities*. TSO (London: 1997).
- 11 Dorling D. *Death in Britain. How local mortality rates have changed: 1950s-1990s*. Joseph Rowntree Foundation (1997).
- 12 Britton M, Fox A J, Goldblatt P, Jones D R and Rosato M. The influence of socio-economic and environmental factors on geographic variation in mortality. In *Mortality and Geography. A review in the mid-1980s England and Wales*. HMSO (London: 1989).
- 13 Wilkinson R G. Commentary: Income inequality summarises the health burden of individual relative deprivation. *British Medical Journal* 314 (1997), 1727–8.
- 14 Wilkinson R G. Income distribution and mortality: a ‘natural’ experiment *Sociology of Health & Illness* 12(4) (1990), 391–412.
- 15 Macintyre S, Maciver S and Soomans A. Area, Class and Health: Should we be focusing on Places or People. *Journal of Social Policy* 22 Part 2 (1993), 213–234.
- 16 Macintyre S, Ellaway A, Derg G, Ford G and Hunt K. Do housing tenure and car access predict health because they are simply markers of income or self esteem: A Scottish study. *Journal of Epidemiology and Community Health* 52L (1998), 657–664.
- 17 Wiggins, R D, Bartley M, Gleave S, Joshi H, Lynch K and Mitchell R. Limiting long-term illness: a question of where you live or who you are: A multilevel analysis of the 1971-1991 ONS Longitudinal Study. *Risk, Decision and Policy* 3(3) (1998), 181–198.

Examining the contribution of social class to high cardiovascular mortality among Indian, Pakistani and Bangladeshi male migrants living in England and Wales

Seeromanie Harding, London School of Hygiene and Tropical Medicine

This paper examined the contribution of social class to excess cardiovascular disease among Indian, Pakistani and Bangladeshi migrant men living in England and Wales. The analysis was based on data from the 1991 Census and deaths in 1991–93. More Pakistanis than Bangladeshis were in a manual class than Indians, but adjusting for these differences did not explain the greater excess of coronary heart disease among Pakistanis and Bangladeshis.

BACKGROUND

The term ‘South Asian’, referring to people originating from the Indian subcontinent, is often used in epidemiological and demographic studies mainly as a result of the lack of relevant ethnic data. It is important to be aware that this group is diverse, including people from different cultural heritages, who speak different languages and with different religious beliefs. Bangladeshis are more likely than Pakistanis and Indians to live in poorer quality housing, to be unemployed, to be in unskilled jobs, and are less likely to speak English.^{1,2,3} All three South Asian groups have higher rates of cardiovascular disease mortality than the general population.^{4,5,6} High rates of coronary heart disease have been linked to a predisposition to impaired glucose tolerance and non-insulin dependent diabetes, central obesity and a lipid profile of low levels of high density lipoprotein and high triglyceride levels.^{7,8} Other work has suggested that combining Indians, Pakistanis and Bangladeshis can lead to misleading inferences as the level of coronary heart disease varies, being highest in the Bangladeshis and lowest in Indians, and the risk factors are not uniform across the groups.^{9,10}

Few studies have examined the contribution of socio-economic factors to health differences between ethnic groups living in England and Wales, partly because of data limitations. In the Fourth National Survey, the role for socio-economic factors in explaining differences in morbidity and health related behaviours was examined in some detail.⁹ After controlling for socio-economic position, the prevalence of self reported coronary heart disease was higher in Bangladeshis and Pakistanis combined and lower in Indians than in the White population.

Recent work examining the South Asian group as a whole in the Whitehall Study demonstrated that while socio-economic position was important, it did not fully explain the higher risks of heart disease.⁸ National mortality data has also been examined for the combined South Asian group. The study in the 1970s¹¹ examined all cause mortality and found no relationship with occupational social class, but later work using data in the 1990s¹² demonstrated an association with coronary heart disease.

The aim of this study was to examine the relationship between social class and mortality from cardiovascular disease among Bangladeshi, Indian and Pakistani migrants living in England and Wales using national data.

METHODS

Men were classified by country of birth (India, Pakistan and Bangladesh) and occupational social class in the 1991 Census and, deaths that occurred during 1991–93 were similarly classified by information on the death certificates. This provided the most recent data available for such analyses. Social class distributions are only available from the census and it was therefore necessary to use deaths that occurred close to the census. Social Classes I and II were combined because of small numbers in the individual classes as was Social Classes IV and V. For reasons related to poor data quality, women and those aged under 20 and over 64 were excluded. Details on the quality of the data can be found elsewhere.¹²

Standardised mortality ratios for coronary heart disease and cerebrovascular disease were derived using the age specific death rates for all men in England and Wales as the standard rates. Adjustment for

social class differences in distributions was done using the age and class specific death rates for all men.

RESOURCES

Table 1 shows standardised mortality ratios by social class for coronary heart disease and cerebrovascular disease for men born in India, Pakistan and Bangladesh, and for all men in England and Wales. Standardised mortality ratios adjusted for differences in social class distributions are also presented.

Although the numbers of deaths are small for Pakistanis and Bangladeshis, the pattern of greatest excess mortality from these two causes among Bangladeshis and least excess among Indians is consistent with other work mentioned above.

The class pattern among men born in the Indian subcontinent was mainly attributable to that of men born in India. As was the case for all men in England and Wales, mortality from coronary heart disease among Indian migrants varied systematically with social class. Among Pakistani and Bangladeshi migrants, the pattern was inconsistent but mortality was generally higher in manual than in non-manual classes. Adjusting for differences in class distributions explained very little of the overall excess mortality from coronary heart disease; among Bangladeshis, mortality from this cause remained more than twice that of all men in England and Wales.

For cerebrovascular disease, the relationship with social class was inconsistent and weak for the three groups although mortality was generally higher among those in manual than non-manual classes. After adjustment for social class, mortality of Bangladeshis from cerebrovas-

Table 1 Standardised mortality ratios for men born in India, Pakistan and Bangladesh and living in England and Wales, and for all men in England and Wales, aged 20-64 years, by social class for coronary heart disease and cerebrovascular disease, England and Wales 1991-93.

Source	Country of birth				
	All in England and Wales	Indian Subcontinent~	India	Pakistan	Bangladesh
Coronary heart disease					
I/II	71*	132*	126	151	177
IIIN	107*	179*	157	233	291
IIIM	125*	183*	180	181	232
IV/V	137*	223*	188	249	309
Non-manual	78*	143*	133	170	227
Manual	130*	205*	184	220	282
All†	100	150*	140	163	184
All**	100	167	148	193	253
Adjusted for class	100	165*	153	178	219
Deaths**	49,845	1,595	908	418	221
Cerebrovascular disease					
I/II	68*	138*	112	208	321
IIIN	96	93	64	81	204
IIIM	118*	135*	139	123	143
IV/V	149*	326*	248	253	763
Non-manual	73*	127*	100	178	269
Manual	130*	238*	194	196	539
All†	100	163*	140	148	324
All**	100	179	140	183	452
Adjusted for class	100	175*	142	164	374
Deaths**	7,835	267	132	63	61

* p<0.05.

† includes unclassified.

** excludes unclassified.

includes those born in India, Pakistan, Bangladesh and Sri Lanka.

cular disease was still more than three times higher than that of all men in England and Wales.

DISCUSSION

This is the first time that, at a national level, social class gradients for cardiovascular disease mortality have been presented separately for Indian, Pakistani and Bangladeshi migrants. There was evidence of an association between social class and coronary heart disease mortality for Indians. For Pakistanis and Bangladeshis, the relationship was not consistent but this may have been due to small numbers of deaths as a non/manual divide was seen. Excess mortality from coronary heart disease and cerebrovascular disease remained independent of social class, as did the differences between the groups.

Ethnic differences are more likely to be due to social and environmental factors rather than genetic factors. The lowering of coronary heart disease death rates in South Asians in Canada¹³, and the rise in death rates from diabetes among South Asians in the England and Wales¹⁴ suggest factors in the current environment are important. Factors such as central obesity⁷, insulin resistance^{7,8}, lack of exercise³, poor nutrition in early life¹⁰ have received attention for differences between South Asians as a combined group and the general population but, until recently, little has been known about the heterogeneity of risks within the group. Poverty and smoking levels are highest in Bangladeshi men³, and recent work showed higher chronic inflammation in Bangladeshi and Pakistani men.¹⁰

CONCLUSIONS

It is important that policy makers and clinicians are aware of the heterogeneity of the South Asian groups if intervention programmes are to be successful.

The subject of ethnicity and health has had a high profile in recent years but addressing the poor health of these groups, in particular the Bangladeshis, still presents an unmet challenge in public health.

Key points

- There was excess mortality from coronary heart disease and cerebrovascular disease for Indian, Pakistani and Bangladeshi migrant men independent of social class.
- For both diseases, the excess appeared to be greatest for Bangladeshis and least for Indians.
- For Indians coronary heart disease mortality varied consistently with social class.

REFERENCES

- ¹ National Institute for Ethnic Studies in Health and Social Policy. *Ethnic minorities in England and Wales. An analysis by Health Authorities based on the 1991 Census*. National Institute for Ethnic Studies in Health and Social Policy (London: 1997).
- ² Modood T, Berthoud R, Lakey J, Nazroo J Y, Smith P, Virdee S and Beishon S. *Ethnic minorities in Britain: Diversity and disadvantage*. Policy Studies Institute (London: 1997). Nazroo J Y. *The Health of Britain's minorities*. Policy Studies Institute (London: 1997).
- ³ Rudat K. *Black and ethnic minority groups in England: health and lifestyles*. Health Education Authority (London:1994).
- ⁴ Balarajan R. Ethnicity and variations in mortality from coronary heart disease. *Health Trends* 28 (1996), 45–51.
- ⁵ Balrajan R and Raleigh V S. (1997). Patterns of mortality among Bangladeshis in England and Wales. *Ethnicity and Health* 2 (1997), 1\2, 5–12.
- ⁶ McKeigue P M, Marmot M G, Syndercombe Court Y D et al. Diabetes, hyperinsulaemia and coronary risk factors in Bangladeshis in East London. *British Heart Journal* 60 (1988), 390–6.
- ⁷ McKeigue P M, Shah B and Marmot M G. Relation of central obesity and insulin resistance with high diabetes prevalence and cardiovascular risk in South Asians. *Lancet* 337 (1991), 382–386.
- ⁸ Whitty C J M, Brunner E J, Shipley M J, Hemingway H and Marmot M G. Differences in biological risk factors for cardiovascular disease between three ethnic groups in the Whitehall II study. *Atherosclerosis* 142 (1999), 279–286.
- ⁹ Nazroo Y J. *The health of Britain's Ethnic minorities*. Policy Studies Institute (London:1997).
- ¹⁰ Bhopal R, Unwin N, White M, Yallop J et al. Heterogeneity of coronary heart disease risk factors in Indian, Pakistani, Bangladeshi, and European origin populations: cross sectional study. *British Medical Journal* 319 (1999), 215–220.
- ¹¹ Marmot M G, Adelstein A M and Bulusu L. *Immigrant mortality in England and Wales 1970-78: causes of death by country of birth*. Studies of Medical Population Subjects No 47. HMSO (London: 1984).
- ¹² Harding S and Maxwell R. Differences in mortality of migrants. In: Drever F, Whitehead M (eds). *Health Inequalities: decennial supplement*. ONS Series DS no 15, 108–121. TSO (London: 1997).
- ¹³ Sheth T, Nair C, Nargundkar M, Anand S and Yusuf S. Canadian Medical Association 161 (1999), 132-8.
- ¹⁴ Balarajan R. *Challenges and Policy Implications of Ethnic Diversity and Health*. In Press.

Tables

Table		Page
	Notes to tables	31
	Population	
1.1	International	Selected countries 32
1.2	National	Constituent countries of the United Kingdom 34
1.3	Subnational	Health Regional Office areas of England 35
1.4	Subnational	Government Office Regions of England 36
1.5	Age and sex	Constituent countries of the United Kingdom 37
1.6	Age, sex and legal marital status	England and Wales 40
	Vital statistics	
2.1	Summary	Constituent countries of the United Kingdom 42
2.2	Key demographic and health indicators	Constituent countries of the United Kingdom 44
	Live births	
3.1	Age of mother	England and Wales 45
3.2	Outside marriage: age of mother and type of registration	England and Wales 46
	Conceptions and abortions	
4.1	Age of women at conception	England and Wales (residents) 47
4.2	Abortions: age and gestation.	England and Wales 48
	Expectation of life	
5.1	(In years) at birth and selected age	Constituent countries of the United Kingdom 49
	Deaths	
6.1	Age and sex	England and Wales 50
6.2	Subnational	Health Regional Office areas of England 51
6.3	Selected causes and sex	England and Wales 52
	Symbols	
	..	not available
	:	not applicable
	-	nil or less than half the final digit shown
		blank not yet available

Notes to tables

Changes to tables

With the introduction of *Health Statistics Quarterly*, the previous *Population Trends* tables have been reviewed and some small changes introduced, in particular, a new table, Table 2.2, showing key demographic and health indicators for the constituent countries of the United Kingdom.

For most tables, years start at 1971 and then continue at five-year intervals until 1991. Individual years are shown thereafter. If a year is not present the data are not available.

Population

The estimated and projected populations of an area include all those usually resident in the area, whatever their nationality. Members of HM forces stationed outside the United Kingdom are excluded. Students are taken to be resident at their term-time addresses.

Figures for the United Kingdom do not include the population of the Channel Islands or the Isle of Man.

The population estimated for mid-1991 onwards are final figures based on the 1991 Census of Population with allowance for subsequent births, deaths and migration.

Live births

For England and Wales, figures relate to numbers occurring in a period; for Scotland and Northern Ireland, figures relate to those registered in a period. See also Note on page 63 of *Population Trends 67*.

Perinatal mortality

In October 1992 the legal definition of a stillbirth was changed, from baby born dead after 28 completed weeks of gestation or more, to one born dead after 24 completed weeks of gestation or more.

Expectation of life

The life tables on which these expectations are

based use current death rates to describe mortality levels for each year. Each individual year shown is based on a three-year period, so that for instance 1986 represents 1985–87. More details may be found in *Population Trends 60*, page 23.

Deaths

Figures for England and Wales represent the numbers of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993. Provisional figures are registrations.

Figures for both Scotland and Northern Ireland represent the number of deaths registered in each year.

Age-standardised mortality

Directly age-standardised rates make allowances for changes in the age structure of the population. The age-standardised rate for a particular condition is that which would have occurred if the observed age-specific rates for the condition had applied in a given standard population. Tables 2.2 and 6.3 use the European Standard Population. This is a hypothetical population standard which is the same for both males and females allowing standardised rates to be compared for each sex, and between males and females.

Abortions

Figures relate to numbers occurring in a period.

Marriages and divorces

Marriages are tabulated according to date of solemnisation. Divorces are tabulated according to date of decree absolute, and the term 'divorces' includes decrees of nullity.

Government Office Regions

Figures refer to Government Office Regions (GORs) of England which were adopted as

the primary classification for the presentation of regional statistics from April 1997.

Health Regional Office areas

Figures refer to new health regions of England which are as constituted on 1 April 1996.

Sources

Figures for Scotland and Northern Ireland shown in these tables (or included in totals for the United Kingdom or Great Britain) have been provided by their respective General Register Offices, except for the projections in Table 1.2 which are provided by the Government Actuary.

Rounding

All figures are rounded independently; constituent parts may not add to totals. Generally numbers and rates per 1,000 population are rounded to one decimal place (e.g. 123.4); where appropriate, for small figures (below 10.0), two decimal places are given (e.g. 7.62). Figures which are provisional or estimated are given in less detail (e.g. 123 or 7.6 respectively) if their reliability does not justify giving the standard amount of detail. Where, for some other reason, figures need to be treated with particular caution, an explanation is given as a footnote.

Latest figures

Figures for the latest quarters and years may be provisional (see note above on rounding) and will be updated in future issues when later information becomes available. Where figures are not yet available, cells are left blank. Population estimates and rates based on them may be revised in the light of results from future censuses of populations.

Table I.1 Population and vital rates: international Selected countries

Year	United Kingdom (1)	Austria (2)	Belgium (2)	Denmark (2)	Finland (2)	France (2)	Germany (Fed. Rep (2))*	Germany (2)†	Greece (2)	Irish Republic (2)	Italy (2)	Luxembourg (2)	Netherlands (2)	Portugal (2)
Population (thousands)														
1971	55,928	7,501	9,673	4,963	4,612	51,251	61,302	78,352	8,831	2,978	54,074	342	13,195	8,644
1976	56,216	7,566	9,811	5,073	4,726	52,909	61,531	78,321	9,167	3,228	55,718	361	13,774	9,355
1981	56,352	7,569	9,859	5,122	4,800	54,182	61,682	78,419	9,729	3,443	56,510	365	14,247	9,851
1986	56,852	7,588	9,862	5,121	4,918	55,547	61,066	77,694	9,967	3,541	56,596	368	14,572	10,011
1991	57,808	7,818	10,005	5,154	5,014	57,055	64,074	80,014	10,247	3,526	56,751	387	15,070	9,871
1992	58,006	7,915	10,045	5,170	5,042	57,373	64,865	80,624	10,322	3,557	56,859	393	15,184	9,867
1993	58,191	7,989	10,085	5,189	5,066	57,654	65,534	81,156	10,380	3,574	57,049	398	15,290	9,881
1994	58,395	8,028	10,116	5,205	5,089	57,899	65,858	81,438	10,426	3,587 ‡	57,204	404	15,383	9,902
1995	58,606	8,047	10,137	5,228	5,108	58,137 ‡	66,715	81,678	10,454	3,605 ‡	57,301	410	15,459	9,917
1996	58,801	8,059	10,157	5,262	5,125	58,374 ‡		82,071	10,475	3,626 ‡	57,397	416	15,531	9,927
1997	59,009	8,072	10,170	5,284	5,140	58,607 ‡			10,485 ‡	3,661 ‡	57,523	418	15,604	9,934 ‡
1998	59,237													
Population changes (per 1,000 per annum)														
1971-76	1.0	1.7	2.9	4.4	4.9	6.5	0.7	-0.1	7.6	16.8	6.1	10.7	8.8	16.5
1976-81	0.5	0.1	1.0	1.9	3.1	4.8	0.5	0.3	12.3	13.3	2.8	2.5	6.9	10.6
1981-86	1.8	0.5	0.1	0.0	4.9	5.0	-2.0	-1.8	4.9	5.7	0.3	1.8	4.6	3.2
1986-91	1.7	6.1	2.9	1.3	3.9	5.4	9.9	6.0	5.6	-0.8	0.5	10.2	6.8	-2.8
1991-92	3.4	12.3	4.1	3.2	5.6	5.6	12.3	7.6	7.3	8.8	1.9	13.9	7.6	-0.4
1992-93	3.2	9.3	3.9	3.7	4.8	4.9	10.3	6.6	5.6	4.8	3.4	14.3	7.0	1.4
1993-94	3.5	4.9	3.1	3.0	4.4	4.2	4.9	3.5	4.5	3.9 ‡	2.7	14.3	6.1	2.2
1994-95	3.6	2.4	2.1	4.4	3.7	4.1 ‡	13.0	2.9	2.7	5.0 ‡	1.7	14.6	4.9	1.4
1995-96	3.3	1.6	1.9	6.4	3.3	4.1 ‡		4.8	2.0	5.8 ‡	1.7	14.4	4.6	1.1
1996-97	3.5	1.6	1.3	4.3	3.0	4.0 ‡			1.0	9.6 ‡	2.2	5.8	4.7	0.7
1997-98	3.9													
Live birth rate (per 1,000 per annum)														
1971-75	14.1	13.3	13.4	14.6	13.1	16.0	10.8	10.5	15.8	22.2	16.0	11.6	14.9	20.3
1976-80	12.5	11.5	12.5	12.0	13.6	14.1	9.7	10.5	15.6	21.3	12.6	11.2	12.6	17.9
1981-85	12.9	12.0	12.0	10.2	13.4	14.2	9.8	10.7	13.3	19.2	10.6	11.6	12.2	14.5
1986-90	13.6	11.6	12.1	11.5	12.7	13.8	10.9	10.6	10.6	15.8	9.8	12.2	12.8	11.9
1991	13.7	12.1	12.6	12.5	13.0	13.3	11.3	10.4	10.1	15.0	9.9	12.9	13.2	11.8
1992	13.5	12.1	12.4	13.1	13.3	13.0	11.1	10.1	10.1	14.4	9.7	13.1	13.0	11.6
1993	13.1	11.9	12.0 ‡	13.0	12.8	12.3	11.0	9.9	9.8	13.8	9.6	13.4	12.8	11.5
1994	12.9	11.5	11.5 ‡	13.4	12.8	12.3	10.5	9.5	10.0	13.4 ‡	9.3	13.5	12.7	11.0
1995	12.5	11.0	11.4 ‡	13.4	12.3	12.5 ‡	10.2	9.4	9.7	13.5 ‡	9.2 ‡	13.2	12.3	10.8
1996	12.5	11.0	11.4 ‡	12.9 ‡	11.8	12.6 ‡	10.6 ‡	9.7 ‡	9.6 ‡	13.9 ‡	9.2 ‡	13.7	12.2	11.1
1997	12.3	10.4	11.4 ‡	12.8 ‡	11.5 ‡	12.4 ‡			9.7 ‡	14.3 ‡	9.2 ‡	13.1	12.2 ‡	11.4
1998	12.1													
Death rate (per 1,000 per annum)														
1971-75	11.8	12.6	12.1	10.1	9.5	10.7	11.9	12.3	8.6	11.0	9.8	12.2	8.3	11.0
1976-80	11.9	12.3	11.6	10.5	9.3	10.2	11.7	12.2	8.8	10.2	9.7	11.5	8.1	10.1
1981-85	11.7	12.0	11.4	11.1	9.3	10.1	11.6	12.0	9.0	9.4	9.5	11.2	8.3	9.6
1986-90	11.4	11.1	10.8	11.5	9.8	9.5	11.3	9.3	9.1	9.4	10.5	8.5	8.5	9.6
1991	11.3	10.7	10.5	11.6	9.8	9.2	11.1	11.4	9.3	8.9	9.7	9.7	8.6	10.5
1992	11.0	10.5	10.3	11.8	9.9	9.1	10.7	11.0	9.5	8.7	9.6	10.2	8.6	10.2
1993	11.3	10.3	10.7 ‡	12.1	10.1	9.2	10.9	11.1	9.4	8.7	9.7	9.8	9.0	10.7
1994	10.7	10.0	10.4 ‡	11.7	9.4	9.0	10.7	10.9	9.4	8.6 ‡	9.7 ‡	9.4	8.7	10.0
1995	10.9	10.1	10.5 ‡	12.1	9.6	9.1 ‡	10.6	10.8	9.6	9.0	9.5 ‡	9.3	8.8	10.4
1996	10.9	10.0	10.4 ‡	11.6 ‡	9.6	9.2 ‡	10.7	10.8	9.6	8.8 ‡	9.5 ‡	9.4	8.9 ‡	10.8
1997	10.8	9.8	10.2 ‡	11.3 ‡	9.6	9.1 ‡			9.6	8.6 ‡	9.6 ‡	9.4	8.7 ‡	10.5

* Excluding former GDR throughout.

† Including former GDR throughout.

‡ Provisional.

≠ Estimates prepared by the Population Division of the United Nations.

+ Rates are for 1990-95.

(1) Population estimated at 30 June each year.

(2) Average of estimated populations at start and end of year as given in Council of Europe report *Recent demographic developments in Europe 1997*.

(3) EU as constituted 1 January 1986 and including countries subsequently admitted.

(4) Population estimated at 1 June each year.

(5) Population estimated at 31 December each year.

(6) Population estimated at 1 July except for 1991 (1 March).

(7) Population estimated at 1 October. (Rates for Japan are based on population of Japanese nationality only.)

Note: Figures may not add exactly due to rounding.

Table I.1
continued

Population and vital rates: international

Selected countries

Spain (2)	Sweden (2)	European Union (3)	Russian Federation (2)	Australia (1)	Canada (4)	New Zealand (5)	China (5)	India (6)	Japan (7)	USA (1)	Year
Population (thousands)											
34,190	8,098	342,631		13,067	22,026	2,899	852,290	551,311	105,145	207,661	1971
35,937	8,222	350,384		14,033	23,517	3,163	943,033 ≠	617,248	113,094	218,035	1976
37,742	8,321	356,511	139,422	14,923	24,900	3,195	1,011,219 ≠	676,218	117,902	230,138	1981
38,537	8,370	359,543	144,475	16,018	26,204	3,317	1,086,733 ≠	767,199	121,672	240,680	1986
38,920	8,617	366,256	148,624	17,284	28,120	3,450	1,170,052 ≠	851,661	123,102	252,177	1991
39,008	8,668	368,033	148,689	17,495	28,542	3,516	1,183,617 ≠	867,818	123,476	255,078	1992
39,086	8,719	369,706 ‡	148,520	17,667	28,947	3,556	1,190,360 ≠	833,910	123,788	257,783	1993
39,150	8,781	371,005 ‡	148,336	17,855	29,256	3,604	1,208,841 ≠	918,570 ≠	124,069	260,341	1994
39,210	8,827	372,122 ‡	148,141	18,072	29,615	3,658	1,221,462 ≠	935,744 ≠	124,299	262,755	1995
39,270	8,841	373,331 ‡	147,739	18,311	29,964 ‡	3,716	1,232,083 ≠	936,000 ≠	124,709	265,284	1996
39,323	8,847			18,530							1997
											1998
Population changes (per 1,000 per annum)											
10.2	3.1	4.5	5.6	14.8	13.5	18.2	19.9	23.9	15.1	10.0	1971-76
10.0	2.4	3.5	8.5	12.7	11.8	2.0	15.2	18.8	8.5	10.9	1976-81
4.2	1.2	1.7	7.2	14.7	10.5	7.6	15.5	27.3	6.4	9.3	1981-86
2.0	5.9	3.7	5.7	15.8	14.6	8.0	15.3	22.0	2.4	9.6	1986-91
2.3	5.9	4.9 ‡	0.4	12.2	15.0	19.0	11.6	19.0	3.0	11.5	1991-92
2.0	5.8	4.5 ‡	-1.1	9.9	14.2	11.5	5.7	18.5	2.5	10.6	1992-93
1.6	7.1	3.5 ‡	-1.2	10.6	10.7	13.5	15.5	39.2	2.3	9.9	1993-94
1.5	5.3	3.0 ‡	-1.3	12.2	12.3	15.0	10.4	18.7	1.9	9.3	1994-95
1.5	1.6		-2.7	13.2	11.8 ‡	15.8	8.7		3.3	9.6	1995-96
1.3	0.7			12.0							1996-97
Live birth rate (per 1,000 per annum)											
19.2	13.5	14.7		18.8	15.9	20.4	27.2	35.6	18.6	15.3	1971-75
17.1	11.6	13.1		15.7	15.5	16.8	18.6	33.4	14.9	15.2	1976-80
12.8	11.3	12.2		15.6	15.1	15.8	19.2	..	12.6	15.7	1981-85
10.8	13.2	13.3		15.1	14.8	17.1			10.6	16.0	1986-90
10.2	14.3	11.7	12.1	14.9	14.3	17.4		29.5	9.9	16.3	1991
10.2	14.2	11.5	10.7	15.1	14.0	17.2		29.0	9.7	16.0	1992
9.9	13.5	11.2 ‡	9.3	14.7	13.4	17.1	18.3+	28.7	9.5	15.5	1993
9.5	12.8	10.9 ‡	9.5	14.5	13.2	16.4		28.7	9.9	15.2	1994
9.3 ‡	11.7	10.7 ‡	9.2	14.2	12.8	16.3		28.3	9.5	14.8	1995
9.1 ‡	10.8		8.8	13.9					9.6 ‡	14.8 ‡	1996
9.2 ‡	10.2		8.6								1997
Death rate (per 1,000 per annum)											
8.5	10.5	10.8		8.2	7.4	8.4	7.3	15.5	6.4	9.1	1971-75
8.0	10.9	10.6		7.6	7.2	8.2	6.6	13.8	6.1	8.7	1976-80
7.7	11.0	10.4		7.3	7.0	8.1	6.7	..	6.1	8.6	1981-85
8.2	11.1	11.4		7.2	7.3	8.2			6.4	8.7	1986-90
8.6	11.0	10.2	11.4	6.9	7.0	7.8		9.8	6.7	8.6	1991
8.5	10.9	10.0	12.2	7.1	6.9	7.9		10.1	6.9	8.5	1992
8.7	11.1	10.2 ‡	14.3	6.8	7.1	7.7	7.2+	9.3	7.0	8.8	1993
8.6	10.5	9.9 ‡	15.5	7.1	7.1	7.5		9.3	7.0	8.7	1994
8.8 ‡	10.6	10.0 ‡	14.9	6.9	7.1	7.6		9.0	7.4	8.8	1995
8.9 ‡	10.6		14.1	7.0	7.2	7.6			7.1	8.8 ‡	1996
8.9 ‡	10.5		13.7								1997

See notes opposite.

Table 1.2

Population: national
Numbers (thousands) and percentage age distribution

Constituent countries of the United Kingdom

Mid-year	United Kingdom	Great Britain	England and Wales	England	Wales	Scotland	Northern Ireland
Estimates							
1971	55,928	54,388	49,152	46,412	2,740	5,236	1,540
1976	56,216	54,693	49,459	46,660	2,799	5,233	1,524
1981	56,352	54,815	49,634	46,821	2,813	5,180	1,538
1986	56,852	55,285	50,162	47,342	2,820	5,123	1,567
1991	57,808	56,207	51,100	48,208	2,891	5,107	1,601
1992	58,006	56,388	51,277	48,378	2,899	5,111	1,618
1993	58,191	56,559	51,439	48,533	2,906	5,120	1,632
1994	58,395	56,753	51,621	48,707	2,913	5,132	1,642
1995	58,606	56,957	51,820	48,903	2,917	5,137	1,649
1996	58,801	57,138	52,010	49,089	2,921	5,128	1,663
1997	59,009	57,334	52,211	49,284	2,927	5,123	1,675
1998	59,237	57,548	52,428	49,495	2,933	5,120	1,689
of which (percentages)							
0-4	6.2	6.2	6.2	6.2	5.9	5.9	7.2
5-15	14.2	14.2	14.2	14.2	14.5	13.9	17.3
16-44	40.8	40.8	40.7	40.9	38.2	41.6	42.0
45-64M/59F	20.6	20.7	20.7	20.6	21.4	20.6	18.3
65M/60F-74	10.8	10.8	10.8	10.7	11.9	11.3	9.4
75 and over	7.3	7.3	7.4	7.4	8.0	6.7	5.8
Projections[≠]							
2001	59,954	58,246	53,137	50,187	2,950	5,109	1,708
2006	60,860	59,119	54,021	51,052	2,969	5,098	1,742
2011	61,773	60,002	54,915	51,922	2,993	5,087	1,771
2016	62,729	60,930	55,853	52,831	3,021	5,078	1,799
2021	63,642	61,820	56,763	53,715	3,047	5,058	1,821
of which (percentages)							
0-4	5.6	5.6	5.6	5.6	5.5	5.3	5.9
5-15	12.2	12.1	12.1	12.1	12.2	11.8	13.3
16-44	35.9	35.9	36.0	36.0	34.8	34.9	37.0
45-64†	27.1	27.2	27.1	27.1	26.3	28.3	26.6
65-74†	10.4	10.5	10.4	10.4	11.4	10.9	9.4
75 and over	8.7	8.8	8.8	8.7	9.7	8.8	7.8

[≠] These projections are based on the mid-1998 population estimates.

[†] Between 2010 and 2020, state retirement age will change from 65 years for men and 60 years for women, to 65 years for both sexes.

Note: Figures may not add exactly due to rounding.

Table 1.3

Population: subnational
 Numbers (thousands) and percentage age distribution

Health Regional Office areas of England*

Mid-year	Northern and Yorkshire	Trent	Eastern	London	South East	South West	West Midlands	North West
Estimates								
1971	6,723	4,483	4,380	7,750	7,136	4,132	5,146	6,662
1976	6,729	4,557	4,448	7,307	7,378	4,299	5,178	6,588
1981	6,718	4,608	4,781	7,018	7,621	4,300	5,187	6,488
1986	6,692	4,634	4,938	7,013	7,892	4,910	5,197	6,397
1991	6,285	5,035	5,150	6,890	8,266	4,718	5,266	6,600
1992	6,309	5,060	5,175	6,905	8,302	4,746	5,278	6,603
1993	6,323	5,081	5,193	6,933	8,329	4,768	5,290	6,617
1994	6,332	5,096	5,223	6,968	8,379	4,798	5,295	6,616
1995	6,337	5,109	5,257	7,007	8,446	4,827	5,306	6,614
1996	6,338	5,121	5,293	7,074	8,500	4,842	5,317	6,605
1997	6,336	5,128	5,334	7,122	8,569	4,876	5,321	6,598
1998	6,339	5,134	5,377	7,187	8,620	4,901	5,333	6,604
of which (percentages)								
0-4	6.0	6.0	6.2	7.0	6.1	5.7	6.3	6.1
5-15	14.4	14.1	13.9	13.7	14.0	13.6	14.6	14.9
16-44	40.3	40.1	40.2	46.2	40.3	38.3	39.9	40.2
45-64M/59F	20.8	21.1	21.2	18.2	21.2	21.3	21.1	20.7
65M/60F-74	11.3	11.3	10.9	8.7	10.6	12.0	11.0	10.9
75 and over	7.2	7.4	7.5	6.2	7.8	9.1	7.1	7.2
Projections[‡]								
2001	6,365	5,184	5,448	7,215	8,757	4,977	5,343	6,582
2006	6,382	5,232	5,582	7,337	8,985	5,097	5,358	6,553
2011	6,405	5,277	5,702	7,470	9,191	5,213	5,372	6,530
2016	6,435	5,324	5,823	7,608	9,396	5,333	5,391	6,521
2021	6,464	5,371	5,941	7,736	9,594	5,452	5,411	6,515
of which (percentages)[§]								
0-4	5.5	5.4	5.5	6.4	5.5	4.9	5.7	5.7
5-15	12.2	11.9	12.1	12.5	12.1	11.2	12.5	12.5
16-44	35.5	35.2	34.5	41.5	34.9	32.8	34.9	35.6
45-64 [†]	27.4	27.5	27.2	26.3	27.4	27.8	27.3	27.4
65-74 [†]	10.9	10.9	11.2	7.7	10.9	12.4	10.7	10.5
75 and over	8.5	9.0	9.5	5.6	9.2	10.8	8.9	8.3

* The Regional Office boundaries were revised from 1 April 1999. See *Health Statistics Quarterly 03 In Brief* for details of the changes. Earlier years' figures have been revised to reflect the new boundaries.

[‡] These projections are based on the mid-1996 population estimates.

[†] Between 2010 and 2020, state retirement age will change from 65 years for men and 60 years for women, to 65 years for both sexes.

[§] The percentages shown in this table are correct and show the proportion in each age group for 2021. These replace the percentage figures shown in *Health Statistics Quarterly* numbers 01, 02 and 03, which were miscalculated.

Note: Figures may not add exactly because of rounding.

Table 1.4

Population: subnational
 Numbers (thousands) and percentage age distribution

Government Office Regions of England

Mid-year	North East	North West*	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Estimates									
1971	2,679	7,108	4,902	3,652	5,146	4,454	7,529	6,830	4,112
1976	2,671	7,043	4,924	3,774	5,178	4,672	7,089	7,029	4,280
1981	2,636	6,940	4,918	3,853	5,187	4,854	6,806	7,245	4,381
1986	2,601	6,852	4,906	3,919	5,197	5,012	6,803	7,492	4,560
1991	2,603	6,885	4,983	4,035	5,265	5,150	6,890	7,679	4,718
1992	2,609	6,890	5,002	4,062	5,278	5,175	6,905	7,712	4,746
1993	2,612	6,903	5,014	4,083	5,290	5,193	6,933	7,737	4,768
1994	2,610	6,902	5,025	4,102	5,295	5,223	6,968	7,784	4,798
1995	2,605	6,900	5,029	4,124	5,306	5,257	7,007	7,847	4,827
1996	2,600	6,891	5,036	4,141	5,317	5,293	7,074	7,895	4,842
1997	2,594	6,885	5,037	4,156	5,321	5,334	7,122	7,959	4,876
1998	2,590	6,891	5,043	4,169	5,333	5,377	7,187	8,004	4,901
of which (percentages)									
0-4	5.9	6.1	6.2	6.0	6.3	6.2	7.0	6.1	5.7
5-15	14.4	14.8	14.5	14.2	14.6	13.9	13.7	13.9	13.6
16-44	40.2	40.1	40.5	40.1	39.9	40.2	46.2	40.3	38.3
45-64M/59F	20.8	20.8	20.6	21.3	21.1	21.2	18.2	21.1	21.3
65M/60F-74	11.7	11.0	11.0	11.1	11.0	10.9	8.7	10.7	12.0
75 and over	7.0	7.2	7.3	7.3	7.1	7.5	6.2	7.8	9.1
Projections[‡]									
2001	2,579	6,871	5,071	4,234	5,343	5,448	7,215	8,134	4,977
2006	2,555	6,843	5,098	4,312	5,358	5,582	7,337	8,344	5,098
2011	2,536	6,820	5,130	4,384	5,372	5,702	7,470	8,534	5,213
2016	2,521	6,813	5,165	4,455	5,391	5,823	7,609	8,722	5,333
2021	2,509	6,808	5,200	4,523	5,411	5,941	7,736	8,905	5,452
of which (percentages)[◇]									
0-4	5.4	5.7	5.6	5.4	5.7	5.5	6.4	5.4	4.9
5-15	12.1	12.4	12.2	12.0	12.5	12.1	12.5	12.1	11.2
16-44	35.1	35.4	35.9	35.1	34.9	34.5	41.5	34.9	32.8
45-64†	27.7	27.5	27.3	27.4	27.3	27.2	26.3	27.4	27.8
65-74†	11.2	10.6	10.6	11.1	10.7	11.2	7.7	10.9	12.4
75 and over	8.4	8.4	8.4	9.0	8.9	9.5	5.6	9.3	10.8

* The North West GOR was created on 3 August 1998 as a merger of the former North West and Merseyside GORs.

‡ These projections are based on the mid-1996 population estimates.

† Between 2010 and 2020, state retirement age will change from 65 years for men and 60 years for women, to 65 years for both sexes.

◇ The percentages shown in this table are correct and show the proportion in each age group for 2021. These replace the percentage figures shown in *Health Statistics Quarterly* numbers 01, 02 and 03, which were miscalculated.

Note: Figures may not add exactly because of rounding.

Table 1.5

Population: age and sex
 Numbers (thousands)

Constituent countries of the United Kingdom

Mid-year	All ages	Age group														
		Under 1	1-4	5-14	15-24	25-34	35-44	45-59	60-64	65-74	75-84	85-89	90 and over	Under 16	16-64/59	65/60 and over
United Kingdom																
Persons																
1971	55,928	899	3,654	8,916	8,144	6,971	6,512	10,202	3,222	4,764	2,159	358	127	14,257	32,548	9,123
1976	56,216	677	3,043	9,176	8,126	7,868	6,361	9,836	3,131	5,112	2,348	390	147	13,797	32,757	9,663
1981	56,352	730	2,725	8,147	9,019	8,010	6,774	9,540	2,935	5,195	2,675	428	174	12,541	33,780	10,031
1986	56,852	749	2,893	7,163	9,283	8,048	7,717	9,210	3,067	5,017	2,986	516	203	11,679	34,846	10,328
1991	57,808	794	3,092	7,175	8,247	9,057	7,955	9,500	2,888	5,067	3,136	639	257	11,741	35,469	10,597
1993	58,191	759	3,129	7,417	7,723	9,295	7,787	10,070	2,839	5,169	3,020	688	294	11,965	35,589	10,637
1994	58,395	759	3,117	7,483	7,554	9,375	7,837	10,277	2,808	5,223	2,952	703	308	12,075	35,689	10,630
1995	58,606	734	3,102	7,526	7,450	9,409	7,931	10,445	2,784	5,127	3,054	719	325	12,106	35,848	10,652
1996	58,801	719	3,044	7,595	7,325	9,420	8,093	10,582	2,772	5,058	3,125	728	339	12,098	36,035	10,668
1997	59,009	736	2,977	7,665	7,219	9,362	8,296	10,702	2,783	5,006	3,175	732	356	12,104	36,214	10,691
1998	59,237	715	2,956	7,709	7,190	9,232	8,505	10,820	2,818	4,965	3,205	742	380	12,110	36,397	10,730
Males																
1971	27,167	461	1,874	4,576	4,137	3,530	3,271	4,970	1,507	1,999	716	97	29	7,318	17,008	2,841
1976	27,360	348	1,564	4,711	4,145	3,981	3,214	4,820	1,466	2,204	775	101	31	7,083	17,167	3,111
1981	27,409	374	1,399	4,184	4,596	4,035	3,409	4,711	1,376	2,264	921	105	35	6,438	17,646	3,325
1986	27,698	384	1,484	3,682	4,747	4,063	3,871	4,572	1,462	2,205	1,063	128	38	5,999	18,266	3,433
1991	28,246	407	1,588	3,688	4,227	4,591	3,986	4,732	1,390	2,272	1,151	167	47	6,033	18,576	3,637
1993	28,474	389	1,603	3,808	3,965	4,723	3,904	5,107	1,374	2,333	1,117	186	55	6,140	18,642	3,692
1994	28,592	389	1,596	3,840	3,879	4,767	3,929	5,118	1,363	2,363	1,096	193	58	6,194	18,687	3,710
1995	28,727	376	1,589	3,861	3,825	4,793	3,984	5,201	1,358	2,330	1,147	201	62	6,208	18,779	3,740
1996	28,856	369	1,560	3,897	3,760	4,805	4,072	5,270	1,355	2,310	1,185	206	67	6,205	18,882	3,768
1997	28,990	377	1,526	3,932	3,705	4,780	4,182	5,329	1,361	2,299	1,215	211	71	6,209	18,984	3,796
1998	29,128	366	1,516	3,953	3,687	4,721	4,294	5,387	1,380	2,290	1,237	218	79	6,210	19,094	3,824
Females																
1971	28,761	437	1,779	4,340	4,008	3,441	3,241	5,231	1,715	2,765	1,443	261	97	6,938	15,540	6,282
1976	28,856	330	1,479	4,465	3,980	3,887	3,147	5,015	1,665	2,908	1,573	289	116	6,714	15,590	6,552
1981	28,943	356	1,326	3,963	4,423	3,975	3,365	4,829	1,559	2,931	1,755	322	139	6,103	16,134	6,706
1986	29,153	365	1,409	3,480	4,536	3,986	3,846	4,638	1,605	2,813	1,923	388	164	5,679	16,580	6,894
1991	29,562	387	1,505	3,487	4,021	4,466	3,968	4,769	1,498	2,795	1,986	472	210	5,708	16,893	6,961
1993	29,718	370	1,526	3,609	3,758	4,572	3,883	5,054	1,466	2,836	1,903	502	239	5,826	16,946	6,946
1994	29,803	370	1,521	3,643	3,674	4,608	3,908	5,159	1,444	2,861	1,856	510	249	5,881	17,002	6,920
1995	29,878	358	1,513	3,665	3,625	4,616	3,947	5,244	1,427	2,797	1,907	518	262	5,898	17,069	6,911
1996	29,946	350	1,484	3,698	3,565	4,615	4,020	5,312	1,418	2,748	1,940	522	273	5,893	17,153	6,900
1997	30,019	359	1,450	3,733	3,514	4,581	4,114	5,374	1,422	2,707	1,960	521	285	5,895	17,229	6,894
1998	30,108	349	1,440	3,756	3,503	4,511	4,211	5,433	1,438	2,674	1,968	525	301	5,900	17,302	6,906
England and Wales																
Persons																
1971	49,152	782	3,170	7,705	7,117	6,164	5,736	9,034	2,853	4,228	1,926	323	115	12,334	28,710	8,108
1976	49,459	585	2,642	7,967	7,077	6,979	5,608	8,707	2,777	4,540	2,093	351	135	11,973	28,894	8,593
1981	49,634	634	2,372	7,085	7,873	7,086	5,996	8,433	2,607	4,619	2,388	383	157	10,910	29,796	8,928
1986	50,162	655	2,528	6,243	8,134	7,088	6,863	8,136	2,725	4,470	2,673	465	184	10,190	30,759	9,213
1991	51,100	702	2,728	6,281	7,237	8,008	7,056	8,407	2,553	4,506	2,810	576	233	10,303	31,351	9,446
1993	51,439	670	2,764	6,504	6,768	8,219	6,887	8,929	2,507	4,596	2,704	623	268	10,515	31,445	9,480
1994	51,621	671	2,752	6,568	6,612	8,293	6,925	9,118	2,478	4,644	2,642	636	281	10,618	31,530	9,473
1995	51,820	649	2,739	6,613	6,521	8,329	7,003	9,272	2,458	4,554	2,734	651	297	10,653	31,676	9,491
1996	52,010	636	2,688	6,683	6,411	8,342	7,146	9,397	2,447	4,490	2,800	658	311	10,655	31,851	9,505
1997	52,211	651	2,632	6,751	6,332	8,290	7,325	9,503	2,456	4,440	2,844	661	327	10,672	32,018	9,522
1998	52,428	633	2,615	6,793	6,303	8,177	7,515	9,613	2,490	4,400	2,871	669	348	10,682	32,192	9,554
Males																
1971	23,897	402	1,626	3,957	3,615	3,129	2,891	4,414	1,337	1,778	637	86	26	6,334	15,036	2,527
1976	24,089	300	1,358	4,091	3,610	3,532	2,843	4,280	1,304	1,963	690	91	29	6,148	15,169	2,773
1981	24,160	324	1,218	3,639	4,011	3,569	3,024	4,178	1,227	2,020	825	94	32	5,601	15,589	2,970
1986	24,456	336	1,297	3,211	4,156	3,579	3,445	4,053	1,302	1,972	954	115	35	5,236	16,143	3,076
1991	24,995	360	1,401	3,231	3,710	4,065	3,539	4,199	1,234	2,027	1,035	151	43	5,296	16,442	3,257
1993	25,198	343	1,416	3,341	3,476	4,184	3,456	4,458	1,218	2,082	1,004	170	51	5,397	16,495	3,306
1994	25,304	344	1,410	3,371	3,396	4,225	3,475	4,551	1,209	2,109	985	175	53	5,448	16,533	3,323
1995	25,433	333	1,403	3,394	3,348	4,252	3,523	4,626	1,204	2,078	1,032	183	57	5,465	16,619	3,349
1996	25,557	327	1,378	3,430	3,291	4,265	3,602	4,689	1,201	2,059	1,066	188	61	5,466	16,716	3,375
1997	25,684	334	1,350	3,463	3,249	4,243	3,700	4,740	1,206	2,048	1,094	192	66	5,475	16,810	3,399
1998	25,817	324	1,342	3,484	3,233	4,190	3,803	4,795	1,224	2,040	1,113	197	72	5,479	16,915	3,422
Females																
1971	25,255	380	1,544	3,749	3,502	3,036	2,845	4,620	1,516	2,450	1,289	236	89	6,000	13,673	5,581
1976	25,370	285	1,284	3,876	3,467	3,447	2,765	4,428	1,473	2,577	1,403	261	106	5,826	13,725	5,820
1981	25,474	310	1,154	3,446	3,863	3,517	2,972	4,255	1,380	2,599	1,564	289	126	5,309	14,207	5,958
1986	25,706	319	1,231	3,032	3,978	3,509	3,418	4,083	1,422	2,498	1,718	349	149	4,953	14,616	6,137
1991	26,104	342	1,328	3,050	3,527	3,943	3,517	4,208	1,319	2,479	1,775	425	191	5,007	14,908	6,189
1993	26,241	326	1,348	3,163	3,293	4,035	3,431	4,471	1,289	2,514	1,700	453	218	5,117	14,950	6,173
1994	26,317	327	1,342	3,197	3,216	4,069	3,449	4,567	1,270	2,536	1,656	461	228	5,170	14,997	6,150
1995	26,387	316	1,335	3,219	3,172	4,076	3,480	4,646	1,254	2,477	1,702	468	240	5,188	15,058	6,141
1996	26,453	310	1,310	3,253	3,120	4,077	3,544	4,709	1,246	2,430	1,733	471	250	5,188	15,134	6,130
1997	26,527	317	1,282	3,287	3,083	4,046	3,625	4,763	1,250	2,392	1,750	470	262	5,196	15,208	6,123
1998	26,611	309	1,274	3,309	3,070	3,987	3,712	4,819	1,266	2,361	1,758	472	276	5,203	15,277	6,132

**Table 1.5
continued**

Population: age and sex
Numbers (thousands)

Constituent countries of the United Kingdom

Mid-year	All ages	Age group														
		Under 1	1-4	5-14	15-24	25-34	35-44	45-59	60-64	65-74	75-84	85-89	90 and over	Under 16	16-64/59	65/60 and over
England																
Persons																
1971	46,412	739	2,996	7,272	6,731	5,840	5,421	8,515	2,690	3,976	1,816	306	109	11,648	27,128	7,636
1976	46,660	551	2,491	7,513	6,688	6,599	5,298	8,199	2,616	4,274	1,972	332	127	11,293	27,275	8,092
1981	46,821	598	2,235	6,678	7,440	6,703	5,663	7,948	2,449	4,347	2,249	362	149	10,285	28,133	8,403
1986	47,342	618	2,385	5,885	7,692	6,717	6,484	7,672	2,559	4,199	2,518	438	174	9,608	29,070	8,665
1991	48,208	663	2,574	5,916	6,840	7,599	6,665	7,920	2,399	4,222	2,645	543	220	9,711	29,627	8,870
1993	48,533	633	2,611	6,125	6,394	7,803	6,508	8,415	2,356	4,308	2,541	587	253	9,913	29,720	8,899
1994	48,707	634	2,601	6,186	6,246	7,873	6,545	8,593	2,329	4,355	2,481	600	265	10,012	29,803	8,893
1995	48,903	615	2,589	6,231	6,158	7,909	6,622	8,738	2,310	4,270	2,568	613	280	10,048	29,946	8,909
1996	49,089	603	2,543	6,298	6,054	7,922	6,761	8,856	2,299	4,210	2,629	620	293	10,053	30,114	8,922
1997	49,284	616	2,490	6,364	5,980	7,873	6,933	8,956	2,308	4,164	2,670	623	308	10,071	30,275	8,939
1998	49,495	599	2,475	6,406	5,954	7,765	7,117	9,060	2,340	4,127	2,694	630	327	10,083	30,443	8,968
Males																
1971	22,569	380	1,537	3,734	3,421	2,965	2,733	4,161	1,261	1,671	599	107	25	5,982	14,209	2,377
1976	22,728	283	1,280	3,858	3,413	3,339	2,686	4,031	1,228	1,849	649	85	27	5,798	14,320	2,610
1981	22,795	306	1,147	3,430	3,790	3,377	2,856	3,938	1,154	1,902	777	89	30	5,280	14,717	2,798
1986	23,086	317	1,224	3,026	3,931	3,392	3,255	3,822	1,224	1,853	900	109	33	4,937	15,254	2,895
1991	23,588	340	1,322	3,043	3,507	3,859	3,344	3,957	1,159	1,900	975	143	41	4,991	15,539	3,058
1993	23,782	325	1,338	3,146	3,282	3,974	3,267	4,202	1,145	1,951	945	160	48	5,089	15,590	3,103
1994	23,882	326	1,332	3,175	3,207	4,012	3,286	4,289	1,136	1,977	926	166	50	5,137	15,626	3,119
1995	24,008	315	1,327	3,198	3,160	4,039	3,333	4,360	1,132	1,948	969	173	54	5,155	15,709	3,144
1996	24,129	309	1,304	3,233	3,106	4,051	3,410	4,420	1,129	1,931	1,002	177	58	5,158	15,803	3,167
1997	24,251	316	1,278	3,265	3,067	4,030	3,504	4,468	1,134	1,921	1,027	181	62	5,168	15,893	3,191
1998	24,378	307	1,270	3,285	3,052	3,978	3,603	4,519	1,151	1,913	1,045	186	68	5,172	15,994	3,212
Females																
1971	23,843	359	1,459	3,538	3,310	2,875	2,688	4,354	1,429	2,305	1,217	309	85	5,666	12,918	5,259
1976	23,932	269	1,211	3,656	3,275	3,260	2,612	4,168	1,387	2,425	1,323	246	100	5,495	14,968	5,481
1981	24,026	292	1,088	3,248	3,650	3,327	2,807	4,009	1,295	2,445	1,472	273	119	5,004	13,416	5,605
1986	24,257	301	1,161	2,859	3,761	3,325	3,229	3,850	1,335	2,346	1,618	330	141	4,671	13,816	5,770
1991	24,620	324	1,253	2,873	3,333	3,739	3,322	3,964	1,239	2,323	1,670	400	179	4,720	14,088	5,812
1993	24,751	309	1,273	2,979	3,111	3,829	3,241	4,212	1,211	2,357	1,597	427	205	4,824	14,131	5,796
1994	24,825	309	1,268	3,010	3,039	3,862	3,259	4,304	1,193	2,378	1,555	434	214	4,874	14,177	5,774
1995	24,896	300	1,262	3,033	2,998	3,871	3,289	4,378	1,178	2,322	1,598	441	226	4,893	14,237	5,765
1996	24,960	293	1,239	3,065	2,948	3,872	3,351	4,437	1,170	2,279	1,627	443	235	4,894	14,311	5,755
1997	25,033	300	1,213	3,099	2,913	3,843	3,429	4,488	1,174	2,244	1,643	442	246	4,903	14,382	5,748
1998	25,117	292	1,205	3,120	2,902	3,787	3,514	4,540	1,189	2,214	1,649	444	260	4,911	14,450	5,756
Wales																
Persons																
1971	2,740	43	173	433	386	325	315	519	164	252	110	16	6	686	1,582	472
1976	2,799	33	151	453	388	379	309	509	161	267	121	19	7	680	1,618	521
1981	2,813	36	136	407	434	383	333	485	158	272	139	21	8	626	1,663	505
1986	2,820	37	143	358	441	371	378	464	166	271	155	26	10	582	1,690	548
1991	2,891	39	154	365	397	409	391	486	154	284	165	33	13	592	1,724	576
1993	2,906	36	153	379	375	416	379	514	151	288	163	36	15	602	1,725	580
1994	2,913	36	151	382	367	420	379	525	149	289	161	36	16	606	1,727	580
1995	2,917	35	149	383	363	420	380	534	148	284	166	37	17	605	1,730	581
1996	2,921	34	145	385	357	420	385	541	148	280	171	38	18	602	1,737	582
1997	2,927	35	141	387	352	417	392	547	148	276	174	39	19	601	1,743	583
1998	2,933	34	140	388	349	413	398	553	150	273	177	39	20	599	1,749	585
Males																
1971	1,329	22	89	222	194	164	158	253	76	107	38	6	1	352	827	150
1976	1,361	17	78	233	197	193	157	249	75	114	41	5	2	350	849	162
1981	1,365	18	70	209	221	193	168	240	73	118	48	5	2	321	871	173
1986	1,370	19	73	185	225	187	190	231	79	119	54	7	2	300	889	181
1991	1,407	20	79	188	203	206	195	242	74	128	60	8	2	305	904	199
1993	1,417	19	78	195	193	210	189	256	73	131	60	9	3	309	905	203
1994	1,422	19	77	196	190	213	189	262	72	131	60	10	3	311	907	204
1995	1,425	18	76	196	188	214	190	266	72	130	62	10	4	310	910	206
1996	1,428	17	74	197	185	214	192	269	72	128	65	10	4	308	913	207
1997	1,433	18	72	198	182	214	196	272	72	127	67	11	4	308	917	208
1998	1,439	17	72	199	181	212	199	275	73	126	68	11	4	307	922	210
Females																
1971	1,412	21	85	211	191	161	157	265	88	146	73	16	4	335	755	322
1976	1,438	16	73	220	191	187	153	260	86	152	80	14	6	330	770	339
1981	1,448	18	66	199	213	190	165	246	85	154	91	16	6	305	791	352
1986	1,450	18	70	173	217	184	188	233	87	152	101	20	8	282	800	367
1991	1,484	19	75	177	194	203	195	244	80	156	105	25	11	288	820	377
1993	1,490	18	75	185	181	206	190	258	78	157	103	26	13	293	819	377
1994	1,491	18	74	186	177	207	190	263	77	158	101	27	13	295	820	376
1995	1,491	17	73	187	175	206	190	268	76	154	104	27	14	295	820	376
1996	1,493	16	71	188	172	206	193	272	76	151	106	28	15	294	824	375
1997	1,494	17	69	189	170	204	196	275	76	148	107	28	15	293	826	375
1998	1,495	16	68	189	168	201	198	278	76	147	109	28	16	292	827	375

Table I.5
continuedPopulation: age and sex
Numbers (thousands)

Constituent countries of the United Kingdom

Mid-year	All ages	Age group														
		Under 1	1-4	5-14	15-24	25-34	35-44	45-59	60-64	65-74	75-84	85-89	90 and over	Under 16	16-64/59	65/60 and over
Scotland																
Persons																
1971	5,236	86	358	912	781	617	612	926	294	430	183	29	9	1,440	2,986	810
1976	5,233	67	291	904	806	692	591	897	282	460	202	31	11	1,352	3,023	858
1981	5,180	69	249	780	875	724	603	880	260	460	232	35	14	1,188	3,110	882
1986	5,123	66	257	657	870	742	665	849	273	435	251	41	15	1,063	3,171	889
1991	5,107	66	259	634	754	809	699	853	265	441	259	50	19	1,023	3,174	910
1993	5,120	64	260	648	705	825	694	888	262	451	249	52	21	1,032	3,176	912
1994	5,132	63	261	651	690	829	703	902	260	456	243	53	21	1,038	3,183	911
1995	5,137	61	261	649	677	827	715	911	258	450	250	55	22	1,036	3,187	914
1996	5,128	59	255	647	663	821	728	919	256	446	255	56	23	1,028	3,185	915
1997	5,123	60	247	649	651	809	744	924	255	443	259	56	24	1,021	3,185	917
1998	5,120	58	243	650	643	793	760	932	257	442	260	57	24	1,014	3,186	920
Males																
1971	2,516	44	184	467	394	306	299	440	134	176	60	8	2	738	1,530	247
1976	2,517	34	149	463	408	347	290	429	128	193	65	8	2	693	1,556	269
1981	2,495	35	128	400	445	364	298	424	118	194	77	8	3	610	1,603	282
1986	2,474	34	131	337	445	375	332	410	127	184	86	10	3	545	1,647	283
1991	2,470	34	133	325	385	407	348	415	124	192	91	12	3	524	1,646	299
1993	2,479	33	133	332	360	415	345	434	123	197	88	13	4	528	1,648	302
1994	2,486	32	133	333	353	418	350	441	122	200	86	14	4	531	1,651	304
1995	2,489	31	133	332	346	416	356	446	121	198	90	14	4	530	1,653	307
1996	2,486	30	130	331	339	413	362	450	121	197	92	15	4	526	1,651	309
1997	2,484	31	126	332	333	407	371	453	121	196	95	15	5	522	1,651	311
1998	2,484	30	124	332	329	399	378	457	122	197	96	16	5	519	1,652	314
Females																
1971	2,720	42	174	445	387	311	313	485	160	254	122	20	7	701	1,455	563
1976	2,716	32	142	440	398	345	301	468	154	267	137	23	8	659	1,468	589
1981	2,685	33	121	380	430	359	305	456	142	265	155	27	11	579	1,506	600
1986	2,649	32	126	320	425	368	334	439	146	250	165	32	12	518	1,525	606
1991	2,637	32	126	309	369	402	351	437	141	249	168	37	16	499	1,528	611
1993	2,642	32	127	316	345	409	349	454	139	254	161	39	17	504	1,528	609
1994	2,646	31	128	318	337	412	353	461	138	256	157	40	17	507	1,532	607
1995	2,647	30	128	317	331	411	359	465	136	252	160	40	18	506	1,534	607
1996	2,642	29	125	316	324	408	366	469	135	249	163	41	19	502	1,534	606
1997	2,638	29	121	317	318	403	374	471	135	247	164	41	19	498	1,534	605
1998	2,636	28	118	317	315	394	382	475	135	245	164	41	19	495	1,535	606
Northern Ireland																
Persons																
1971	1,540	31	126	299	247	189	165	243	74	106	51	7	2	483	853	205
1976	1,524	26	111	306	243	198	163	231	73	111	53	8	2	471	840	212
1981	1,538	27	104	282	271	200	175	227	68	116	55	9	4	442	874	221
1986	1,567	28	108	262	280	218	189	225	69	113	62	10	4	426	915	226
1991	1,601	26	104	260	256	240	200	241	70	119	67	12	5	415	945	241
1993	1,632	25	105	265	250	251	205	253	70	123	67	13	5	419	968	246
1994	1,642	25	104	265	251	253	209	257	70	123	68	13	5	419	976	246
1995	1,649	24	102	264	252	253	213	261	69	123	69	14	5	417	985	247
1996	1,663	24	101	264	251	257	218	266	69	123	71	14	5	416	999	249
1997	1,675	25	99	265	236	262	227	275	72	123	72	14	5	412	1,011	252
1998	1,689	24	98	266	244	262	230	275	71	122	74	16	8	414	1,018	257
Males																
1971	755	16	64	152	127	95	81	116	36	45	19	2	1	246	441	67
1976	754	13	58	157	127	102	81	111	34	47	19	3	0	242	442	70
1981	754	14	53	145	140	102	87	109	32	50	20	3	1	227	454	73
1986	768	14	55	134	146	109	94	109	32	48	22	3	1	218	476	74
1991	781	13	54	133	132	119	100	118	32	52	24	3	1	213	487	81
1993	797	13	54	135	129	124	102	124	33	54	25	3	1	214	500	83
1994	802	12	53	136	130	125	104	126	33	54	25	4	1	214	504	83
1995	805	12	52	135	130	125	105	128	32	54	26	4	1	214	508	84
1996	812	12	51	136	129	127	108	131	33	54	26	4	1	213	515	85
1997	821	13	51	136	123	130	112	136	34	55	27	4	1	211	523	86
1998	827	12	50	136	126	132	113	135	34	54	28	4	2	212	527	88
Females																
1971	786	15	62	147	119	95	84	126	39	61	32	5	2	237	411	138
1976	769	13	53	149	116	96	81	120	38	64	33	6	2	229	398	143
1981	783	13	51	137	130	98	88	118	37	66	36	7	3	215	420	148
1986	798	13	52	128	133	108	95	116	37	64	40	7	3	208	439	152
1991	820	13	51	127	125	121	100	123	38	67	43	9	4	203	457	160
1993	835	12	51	129	121	127	103	129	38	69	43	10	4	204	468	163
1994	840	12	51	129	121	128	105	131	37	69	43	10	4	205	472	163
1995	844	12	50	129	122	128	107	133	36	69	44	10	4	203	477	163
1996	851	12	49	129	121	130	111	135	36	69	45	10	4	203	484	164
1997	854	12	48	129	113	132	115	139	37	68	46	11	4	200	487	166
1998	861	12	48	130	118	129	117	139	37	68	46	12	6	202	491	168

Table 1.6

Population: age, sex and legal marital status
Numbers (thousands)

England and Wales

Mid-year	Total population	Males					Females				
		Single	Married	Divorced	Widowed	Total	Single	Married	Divorced	Widowed	Total
Aged											
16 and over											
1971	36,818	4,173	12,522	187	682	17,563	3,583	12,566	296	2,810	19,255
1976	37,486	4,369	12,511	376	686	17,941	3,597	12,538	533	2,877	19,545
1981	38,724	5,013	12,238	611	698	18,559	4,114	12,284	828	2,939	20,165
1986	39,887	5,673	11,886	919	695	19,173	4,613	11,994	1,164	2,943	20,714
1991	40,796	6,024	11,745	1,200	731	19,699	4,822	11,838	1,459	2,978	21,097
1993	40,925	6,147	11,580	1,342	732	19,801	4,906	11,661	1,610	2,946	21,124
1994	41,003	6,221	11,492	1,413	730	19,855	4,958	11,583	1,684	2,922	21,147
1995	41,167	6,345	11,415	1,480	729	19,968	5,058	11,488	1,754	2,898	21,199
1996	41,356	6,482	11,339	1,543	728	20,091	5,171	11,406	1,819	2,870	21,265
1997	41,540	6,622	11,256	1,604	726	20,209	5,292	11,319	1,882	2,838	21,331
1998	41,746	6,768	11,815	1,659	725	20,338	5,415	11,244	1,940	2,808	21,408
16-19											
1971	2,666	1,327	34	0	0	1,362	1,163	142	0	0	1,305
1976	2,901	1,454	28	0	0	1,482	1,289	129	0	0	1,419
1981	3,310	1,675	20	0	0	1,694	1,523	93	0	0	1,616
1986	3,144	1,601	10	0	0	1,611	1,483	49	1	0	1,533
1991	2,680	1,372	8	0	0	1,380	1,267	32	0	0	1,300
1993	2,421	1,242	4	0	0	1,246	1,157	18	0	0	1,175
1994	2,360	1,212	3	0	0	1,215	1,131	14	0	0	1,145
1995	2,374	1,220	3	0	0	1,222	1,139	13	0	0	1,152
1996	2,436	1,251	2	0	0	1,253	1,171	12	0	0	1,183
1997	2,517	1,291	2	0	0	1,293	1,212	11	0	0	1,224
1998	2,578	1,322	2	0	0	1,324	1,242	11	0	0	1,254
20-24											
1971	3,773	1,211	689	3	0	1,904	745	1,113	9	2	1,869
1976	3,395	1,167	557	4	0	1,728	725	925	16	2	1,667
1981	3,744	1,420	466	10	1	1,896	1,007	811	27	2	1,847
1986	4,203	1,794	322	14	0	2,130	1,382	658	32	1	2,072
1991	3,966	1,764	249	12	0	2,025	1,421	490	29	1	1,941
1993	3,770	1,742	182	8	0	1,933	1,432	381	23	1	1,838
1994	3,625	1,699	152	7	0	1,858	1,416	330	20	1	1,767
1995	3,495	1,658	127	6	0	1,791	1,404	282	17	0	1,703
1996	3,329	1,597	105	5	0	1,707	1,369	238	15	0	1,622
1997	3,177	1,536	87	4	0	1,628	1,333	204	12	0	1,549
1998	3,084	1,500	76	3	0	1,579	1,314	180	10	0	1,505
25-29											
1971	3,267	431	1,206	16	1	1,654	215	1,367	29	4	1,614
1976	3,758	533	1,326	39	2	1,900	267	1,522	65	5	1,859
1981	3,372	588	1,057	54	1	1,700	331	1,247	89	4	1,671
1986	3,724	841	956	79	1	1,877	527	1,204	113	4	1,847
1991	4,246	1,183	894	85	1	2,163	800	1,158	123	2	2,083
1993	4,220	1,263	807	80	1	2,152	880	1,062	124	2	2,069
1994	4,168	1,293	754	76	1	2,124	908	1,011	122	2	2,044
1995	4,094	1,326	696	70	1	2,092	936	947	116	2	2,002
1996	4,045	1,368	639	64	1	2,071	977	887	109	2	1,975
1997	3,972	1,401	577	58	1	2,037	1,014	818	101	2	1,935
1998	3,883	1,422	520	51	0	1,994	1,047	750	91	2	1,889
30-34											
1971	2,897	206	1,244	23	3	1,475	111	1,269	34	8	1,422
1976	3,220	236	1,338	55	3	1,632	118	1,388	75	8	1,588
1981	3,715	318	1,451	97	3	1,869	165	1,544	129	9	1,846
1986	3,341	356	1,200	125	2	1,683	206	1,292	154	6	1,658
1991	3,762	535	1,206	160	2	1,903	335	1,330	189	5	1,859
1993	3,999	662	1,194	174	2	2,032	418	1,338	205	5	1,967
1994	4,126	732	1,187	179	2	2,100	467	1,340	213	5	2,025
1995	4,235	799	1,177	182	2	2,160	518	1,333	218	5	2,075
1996	4,296	855	1,155	181	2	2,194	560	1,316	221	5	2,103
1997	4,318	903	1,125	177	3	2,207	598	1,287	222	5	2,111
1998	4,294	938	1,085	171	3	2,196	627	1,247	219	5	2,098
35-44											
1971	5,736	317	2,513	48	13	2,891	201	2,529	66	48	2,845
1976	5,608	286	2,442	104	12	2,843	167	2,427	129	42	2,765
1981	5,996	316	2,519	178	12	3,024	170	2,540	222	41	2,972
1986	6,863	397	2,743	293	12	3,444	213	2,816	350	39	3,419
1991	7,056	482	2,658	388	12	3,539	280	2,760	444	34	3,517
1993	6,887	522	2,500	423	12	3,456	316	2,612	473	31	3,431
1994	6,925	556	2,463	444	12	3,475	343	2,587	491	29	3,449
1995	7,003	601	2,446	464	12	3,523	374	2,568	509	29	3,480
1996	7,146	657	2,449	483	13	3,602	414	2,575	527	28	3,544
1997	7,325	725	2,458	503	13	3,700	459	2,593	545	28	3,625
1998	7,515	802	2,467	520	14	3,803	510	2,612	563	27	3,712

Note: Population estimates by marital status for 1971 and 1976 are based on the 1971 Census and those for 1981 and 1986 are based on the 1981 Census and have not been rebased using the 1991 Census.

**Table 1.6
continued****Population: age, sex and legal marital status**
Numbers (thousands)*England and Wales*

Mid-year	Total population	Males					Females				
		Single	Married	Divorced	Widowed	Total	Single	Married	Divorced	Widowed	Total
45-64											
1971	11,887	502	4,995	81	173	5,751	569	4,709	125	733	6,136
1976	11,484	496	4,787	141	160	5,583	462	4,568	188	683	5,901
1981	11,040	480	4,560	218	147	5,405	386	4,358	271	620	5,635
1986	10,860	461	4,423	332	141	5,356	326	4,221	388	569	5,504
1991	10,960	456	4,394	456	127	5,433	292	4,211	521	503	5,527
1993	11,436	479	4,532	544	122	5,677	297	4,376	615	471	5,759
1994	11,596	489	4,564	587	120	5,759	300	4,422	659	456	5,837
1995	11,730	500	4,581	630	119	5,830	305	4,452	703	440	5,900
1996	11,844	512	4,587	673	118	5,890	310	4,473	746	425	5,954
1997	11,959	524	4,590	715	117	5,946	318	4,494	789	412	6,013
1998	12,103	541	4,604	758	117	6,019	328	4,523	832	401	6,085
65 and over											
1971	6,592	179	1,840	17	492	2,527	580	1,437	32	2,016	4,065
1976	7,119	197	2,033	33	510	2,773	569	1,579	60	2,138	4,347
1981	7,548	216	2,167	54	534	2,971	533	1,692	90	2,263	4,578
1986	7,752	223	2,233	76	539	3,070	475	1,754	127	2,325	4,681
1991	8,127	231	2,337	99	589	3,257	427	1,858	153	2,433	4,870
1993	8,191	237	2,360	113	596	3,306	405	1,873	170	2,436	4,885
1994	8,203	239	2,368	121	595	3,323	393	1,879	179	2,429	4,880
1995	8,237	241	2,385	128	595	3,349	382	1,893	190	2,422	4,887
1996	8,259	242	2,401	137	594	3,375	370	1,904	201	2,410	4,884
1997	8,272	242	2,417	147	593	3,399	358	1,912	213	2,390	4,873
1998	8,288	242	2,432	156	592	3,422	347	1,921	225	2,372	4,866

See note opposite.

Table 2.1 Vital statistics summary Constituent countries of the United Kingdom
Numbers (thousands) and rates

Year and quarter	All live births		Live births outside marriage		Marriages		Divorces		Deaths****		Infant mortality***		Neonatal mortality†††		Perinatal mortality****	
	Number	Rate*	Number	Rate†	Number	Rate**	Number	Rate††	Number	Rate*	Number	Rate†	Number	Rate†	Number	Rate††††
United Kingdom																
1971	901.6	16.1	73.9	82	459.4	..	79.6	..	645.1	11.5	16.2	17.9	10.8	12.0	20.7	22.6
1976	675.5	12.0	61.1	90	406.0	..	135.4	..	680.8	12.1	9.79	14.5	6.68	9.9	12.3	18.0
1981	730.8	13.0	91.3	125	397.8	49.4	156.4	11.3	658.0	11.7	8.16	11.2	4.93	6.7	8.79	12.0
1986	755.0	13.3	158.5	210	393.9	43.5	168.2	12.5	660.7	11.6	7.18	9.5	4.00	5.3	7.31	9.6
1991	792.5	13.7	236.1	298	349.7	36.0	173.5	13.0	646.2	11.3	5.82	7.4	3.46	4.4	6.45	8.1
1992	781.0	13.5	240.8	308	356.0	..	175.1	..	634.2	10.9	5.14	6.6	3.37	4.3	6.01	7.7
1993	761.7	13.1	241.8	318	341.6	..	180.0	..	658.5	11.3	4.83	6.3	3.18	4.2	6.73	8.8
1994	750.7	12.9	240.1	320	331.2	..	173.6	..	627.6	10.7	4.63	6.2	3.09	4.1	6.74	9.0
1995	732.0	12.5	245.7	336	322.3	..	170.0	..	645.5	11.0	4.52	6.2	3.05	4.2	6.52	8.9
1996	733.4	12.5	260.4	355	317.5	..	171.7	..	636.0	10.8	4.50	6.1	3.00	4.1	6.41	8.7
1997	726.8	12.3	267.0	367	310.2	..	161.1	..	629.7	10.7	4.25	5.9	2.81	3.9	6.06	8.3
1998	717.1	12.1	269.7	376	304.8†	..	160.1†	..	629.2	10.6	4.08	5.7	2.71	3.8	5.94	8.2
1998 March	176.0	12.1	65.7	373	37.7†	..	..	..	166.7	11.4	1.02	5.8	0.68	3.9	1.52	8.6
1998 June	178.9	12.1	65.5	366	85.6†	..	..	..	151.7	10.3	0.97	5.4	0.65	3.6	1.45	8.0
1998 Sept	187.1	12.5	70.7	378	125.5†	..	..	..	143.1	9.6	0.98	5.2	0.68	3.6	1.44	7.7
1998 Dec	175.0	11.7	67.7	387	56.0†	..	..	..	167.7	11.2	1.11	6.3	0.71	4.0	1.54	8.7
1999 March	171.7†	11.7†	66.4†	387†	..	..	..	..	184.2†	12.6†	1.06†	6.2†	0.68†	3.9†	1.50†	8.7†
1999 June	176.9†	11.9†	67.1†	379†	..	..	..	..	143.5†	9.7†	1.02†	5.8†	0.69†	3.9†	1.45†	8.2†
1999 Sept	180.0†	12.0†	70.4†	391†	..	..	..	..	139.1†	9.3†	1.00†	5.5†	0.72†	4.0†	1.45†	8.0†
England and Wales																
1971	783.2	15.9	65.7	84	404.7	69.0	74.4	5.9	567.3	11.5	13.7	17.5	9.11	11.6	17.6	22.3
1976	584.3	11.8	53.8	92	358.6	57.7	126.7	10.1	598.5	12.1	8.34	14.3	5.66	9.7	10.5	17.7
1981	634.5	12.8	81.0	128	352.0	49.6	145.7	11.9	577.9	11.6	7.02	11.1	4.23	6.7	7.56	11.8
1986	661.0	13.2	141.3	214	347.9	43.5	153.9	12.9	581.2	11.6	6.31	9.6	3.49	5.3	6.37	9.6
1991	699.2	13.7	211.3	302	306.8	35.6	158.7	13.5	570.0	11.2	5.16	7.4	3.05	4.4	5.65	8.0
1992	689.7	13.4	215.2	312	311.6	35.8	160.4	13.7	558.3	10.9	4.54	6.6	2.96	4.3	5.24	7.6
1993	673.5	13.1	216.5	322	299.2	33.9	165.0	14.2	578.8	11.3	4.24	6.3	2.80	4.2	6.03	8.9
1994	664.7	12.9	215.5	324	291.1	32.6	158.2	13.7	553.2	10.7	4.10	6.2	2.74	4.1	5.95	8.9
1995	648.1	12.5	219.9	339	283.0	31.0	155.5	13.6	569.7	11.0	3.98	6.1	2.70	4.2	5.70	8.8
1996	649.5	12.5	232.7	358	279.0	30.0	157.1	13.8	560.1	10.8	3.99	6.1	2.68	4.1	5.62	8.6
1997	643.1	12.3	238.2	370	272.5	28.7	146.7	13.0	555.3	10.6	3.80	5.9	2.52	3.9	5.38	8.3
1998	635.9	12.1	240.6	378	267.3†	27.7†	145.2†	12.9†	555.0	10.6	3.63	5.7	2.42	3.8	5.26	8.2
1998 March	155.8	12.1	58.5	375	33.4†	14.0†	37.0†	13.4†	146.9	11.4	0.93	6.0	0.61	3.9	1.35	8.6
1998 June	158.6	12.1	58.4	368	75.0†	31.2†	36.6†	13.1†	133.4	10.2	0.83	5.3	0.56	3.6	1.28	8.0
1998 Sept	166.1	12.6	63.2	380	110.2†	45.3†	37.1†	13.1†	125.8	9.5	0.86	5.2	0.60	3.6	1.26	7.5
1998 Dec	155.4	11.8	60.5	389	48.7†	20.0†	34.4†	12.2†	148.9	11.3	1.00	6.5	0.64	4.1	1.38	8.8
1999 March	152.1†	11.7†	59.0†	388†	..	..	36.4†	13.2†	161.9†	12.5†	0.97†	6.4†	0.62†	4.1†	1.34†	8.7†
1999 June	157.2†	12.0†	59.8†	380†	..	..	35.6†	12.7†	126.2†	9.7†	0.89†	5.7†	0.60†	3.8†	1.27†	8.1†
1999 Sept	159.8†	12.0†	62.8†	393†	..	..	..	..	122.3†	9.3†	0.91†	5.7†	0.66†	4.1†	1.31†	8.1†
England																
1971	740.1	15.9	62.6	85	382.3	..	..	..	532.4	11.5	12.9	17.5	8.58	11.6	16.6	22.1
1976	550.4	11.8	50.8	92	339.0	..	..	..	560.3	12.0	7.83	14.2	5.32	9.7	9.81	17.6
1981	598.2	12.8	76.9	129	332.2	..	..	..	541.0	11.6	6.50	10.9	3.93	6.6	7.04	11.7
1986	623.6	13.2	133.5	214	328.4	..	146.0	..	544.5	11.5	5.92	9.5	3.27	5.2	5.98	9.5
1991	660.8	13.7	198.9	301	290.1	..	150.1	..	534.0	11.2	4.86	7.3	2.87	4.3	5.33	8.0
1992	651.8	13.5	202.4	311	295.0	..	151.5	..	522.7	10.8	4.26	6.5	2.79	4.3	4.95	7.6
1993	636.5	13.1	203.6	320	283.3	..	156.1	..	541.1	11.1	4.00	6.3	2.65	4.2	5.70	8.9
1994	629.0	13.0	202.7	322	275.5	..	149.6	..	517.6	10.6	3.83	6.1	2.57	4.1	5.58	8.8
1995	613.2	12.5	206.8	337	268.3	..	147.5	..	532.6	10.9	3.74	6.1	2.55	4.2	5.41	8.8
1996	614.2	12.5	218.2	355	264.2	..	148.7	..	524.0	10.7	3.74	6.1	2.53	4.1	5.36	8.7
1997	608.6	12.3	223.4	367	258.0	..	138.7†	..	519.1	10.5	3.60	5.9	2.37	3.9	5.09	8.3
1998	602.5	12.2	225.8	375	253.1†	..	137.4†	..	519.6	10.5	3.39	5.6	2.29	3.8	4.97	8.2
1998 March	147.6	12.1	54.9	372	31.6†	..	35.1†	..	137.5	11.3	0.88	5.9	0.58	3.9	1.28	8.6
1998 June	150.2	12.2	54.8	365	71.0†	..	34.6†	..	124.8	9.6	0.77	5.1	0.53	3.5	1.20	8.0
1998 Sept	157.4	12.6	59.3	377	104.4†	..	35.1†	..	117.6	8.9	0.79	5.0	0.56	3.6	1.18	7.5
1998 Dec	147.3	11.8	56.7	385	46.1†	..	32.6†	..	139.7	10.6	0.95	6.5	0.62	4.2	1.31	8.9
1999 March	144.1†	11.7†	55.4†	384†	..	..	34.5†	..	151.2†	12.4†	0.90†	6.2†	0.58†	4.0†	1.26†	8.7†
1999 June	149.0†	12.0†	56.1†	377†	..	..	33.8†	..	117.7†	9.0†	0.84†	5.7†	0.56†	3.8†	1.21†	8.1†
1999 Sept	151.6†	12.1†	58.9†	389†	..	..	..	..	114.2†	8.6†	0.84†	5.6†	0.62†	4.1†	1.23†	8.1†

* Per 1,000 population of all ages. † Per 1,000 live births. ** Persons marrying per 1,000 unmarried population 16 and over. †† Persons divorcing per 1,000 married population. *** Deaths under 1 year. ††† Deaths under 4 weeks. **** Stillbirths and deaths under 1 week. In October 1992 the legal definition of a stillbirth was changed, from baby born dead after 28 completed weeks of gestation or more, to one born dead after 24 completed weeks of gestation or more. †††† Per 1,000 live births and stillbirths. ***** 1998 deaths figures for England and Wales in *Health Statistics Quarterly* 3 and 4 were incorrectly shown as being final when they were still provisional. The final 1998 figures are those below. † Provisional.

**Table 2.1
continued****Vital statistics summary**
Numbers (thousands) and rates

Constituent countries of the United Kingdom

Year and quarter	All live births		Live births outside marriage		Marriages		Divorces		Deaths		Infant mortality***		Neonatal mortality†††		Perinatal mortality***	
	Number	Rate*	Number	Rate†	Number	Rate**	Number	Rate††	Number	Rate*	Number	Rate†	Number	Rate†	Number	Rate††††
Wales																
1971	43.1	15.7	3.1	71	22.4	..	..	..	34.8	12.7	0.79	18.4	0.53	12.3	1.07	24.4
1976	33.4	11.9	2.9	86	19.5	..	..	..	36.3	13.0	0.46	13.7	0.32	9.6	0.64	19.0
1981	35.8	12.7	4.0	112	19.8	..	..	..	35.0	12.4	0.45	12.6	0.29	8.1	0.51	14.1
1986	37.0	13.1	7.8	211	19.5	..	7.9	..	34.7	12.3	0.35	9.5	0.21	5.6	0.38	10.3
1991	38.1	13.2	12.3	323	16.6	..	8.6	..	34.1	11.8	0.25	6.6	0.16	4.1	0.30	7.9
1992	37.5	12.9	12.8	340	16.6	..	8.9	..	33.8	11.7	0.23	6.0	0.14	3.8	0.26	7.0
1993	36.6	12.6	12.9	352	15.9	..	8.9	..	35.9	12.4	0.20	5.5	0.12	3.3	0.30	8.2
1994	35.4	12.2	12.7	360	15.5	..	8.6	..	33.9	11.6	0.22	6.1	0.14	4.1	0.33	9.3
1995	34.5	11.8	13.1	381	14.7	..	8.0	..	35.6	12.2	0.20	5.9	0.13	3.9	0.27	7.9
1996	34.9	11.9	14.4	412	14.8	..	8.4	..	34.6	11.8	0.20	5.6	0.13	3.6	0.26	7.5
1997	34.5	11.8	14.8	428	14.6	..	8.0	..	34.6	11.8	0.20	5.9	0.13	3.9	0.27	7.9
1998	33.4	11.4	14.8	444	14.2‡	..	7.8‡	..	34.0	11.6	0.19	5.6	0.12	3.6	0.27	8.0
1998 March	8.3	11.4	3.6	435	1.8‡	..	2.0‡	..	9.0	12.5	0.04	5.0	0.03	3.5	0.07	8.1
1998 June	8.4	11.4	3.6	428	4.0‡	..	2.0‡	..	8.2	11.2	0.05	5.6	0.03	3.9	0.07	8.7
1998 Sept	8.8	11.8	3.9	444	5.8‡	..	2.0‡	..	7.8	10.6	0.05	5.9	0.04	4.0	0.07	8.2
1998 Dec	8.0	10.9	3.8	468	2.6‡	..	1.8‡	..	8.9	12.1	0.05	6.0	0.02	3.0	0.06	6.9
1999 March	7.9‡	10.9‡	3.6‡	454‡	..	..	1.9‡	..	10.3‡	14.2‡	0.05‡	6.3‡	0.03‡	4.0‡	0.06‡	7.9‡
1999 June	8.2‡	11.2‡	3.6‡	445‡	..	..	1.8‡	..	8.1‡	11.1‡	0.05‡	5.5‡	0.03‡	3.6‡	0.05‡	5.7‡
1999 Sept	8.3‡	11.1‡	3.9‡	470‡	..	..	..	..	7.7‡	10.4‡	0.05‡	6.3‡	0.03‡	3.6‡	0.07‡	8.2‡
Scotland																
1971	86.7	16.6	7.0	81	42.5	64.1	4.8	3.9	61.6	11.8	1.72	19.9	1.17	13.5	2.15	24.5
1976	64.9	12.5	6.0	93	37.5	53.8	8.1	6.5	65.3	12.5	0.96	14.8	0.67	10.3	1.20	18.3
1981	69.1	13.4	8.5	122	36.2	47.5	9.9	8.0	63.8	12.3	0.78	11.3	0.47	6.9	0.81	11.6
1986	65.8	12.9	13.6	206	35.8	42.8	12.8	10.7	63.5	12.4	0.58	8.8	0.34	5.2	0.67	10.2
1991	67.0	13.1	19.5	291	33.8	38.7	12.4	10.6	61.0	12.0	0.47	7.1	0.29	4.4	0.58	8.6
1992	65.8	12.9	20.0	303	35.1	39.9	12.5	10.7	60.9	11.9	0.45	6.8	0.30	4.6	0.60	9.0
1993	63.3	12.4	19.9	313	33.4	37.6	12.8	11.0	64.0	12.5	0.41	6.5	0.25	4.0	0.61	9.6
1994	61.7	12.0	19.2	312	31.5	35.1	13.1	11.4	59.3	11.6	0.38	6.2	0.25	4.0	0.56	9.0
1995	60.1	11.7	20.3	337	30.7	33.7	12.2	10.7	60.5	11.8	0.38	6.2	0.24	4.0	0.58	9.6
1996	59.3	11.6	21.4	360	30.2	32.8	12.3	10.9	60.7	11.8	0.37	6.2	0.23	3.9	0.55	9.2
1997	59.4	11.6	22.4	377	29.6	31.7	12.2	11.0	59.5	11.6	0.32	5.3	0.19	3.2	0.47	7.8
1998	57.3	11.2	22.3	389	29.7	31.2	12.4	11.2	59.2	11.6	0.32	5.5	0.20	3.5	0.49	8.5
1998 March	14.2	11.2	5.5	389	3.5	14.7	3.1	11.5	15.7	12.5	0.06	4.2	0.04	2.8	0.12	8.1
1998 June	14.2	11.2	5.5	384	8.4	35.4	3.2	11.5	14.4	11.3	0.09	6.4	0.06	4.0	0.12	8.5
1998 Sept	14.8	11.5	5.7	385	11.9	49.8	3.1	11.1	13.8	10.7	0.09	5.7	0.06	4.1	0.13	9.0
1998 Dec	14.1	10.9	5.6	396	5.9	24.7	3.0	10.8	15.2	11.8	0.08	5.9	0.05	3.2	0.12	8.3
1999 March	13.9‡	11.0‡	5.7‡	411‡	3.6‡	15.3‡	..	..	17.7‡	14.0‡	0.06‡	4.4‡	0.04‡	2.5‡	0.10‡	7.4‡
1999 June	13.9‡	10.9‡	5.6‡	402‡	8.1‡	34.4‡	..	..	13.7‡	10.7‡	0.09‡	6.4‡	0.06‡	4.2‡	0.12‡	8.3‡
1999 Sept	14.1‡	10.9‡	5.7‡	406‡	11.9‡	49.7‡	..	..	13.3‡	10.3‡	0.05‡	3.5‡	0.04‡	2.5‡	0.09‡	6.2‡
Northern Ireland																
1971	31.8	20.7	1.2	38	12.2	..	0.3	..	17.6	12.8	0.72	22.7	0.51	15.9	0.88	27.2
1976	26.4	17.3	1.3	50	9.9	..	0.6	..	17.0	11.2	0.48	18.3	0.35	13.3	0.59	22.3
1981	27.3	17.8	1.9	70	9.6	45.4	1.4	4.2	16.3	10.6	0.36	13.2	0.23	8.3	0.42	15.3
1986	28.2	18.0	3.6	127	10.2	..	1.5	..	16.1	10.3	0.36	13.2	0.23	8.3	0.42	15.3
1991	26.3	16.5	5.3	202	9.2	37.7	2.3	6.8	15.1	9.4	0.19	7.4	0.12	4.6	0.22	8.4
1992	25.6	15.9	5.6	219	9.4	..	2.3	..	15.0	9.3	0.15	6.0	0.10	4.1	0.21	8.2
1993	24.9	15.3	5.5	219	9.0	..	2.2	..	15.6	9.6	0.18	7.1	0.12	4.9	0.22	8.8
1994	24.3	14.9	5.4	220	8.7	..	2.3	..	15.1	9.2	0.15	6.1	0.10	4.2	0.24	9.7
1995	23.9	14.5	5.5	231	8.6	..	2.3	..	15.3	9.3	0.17	7.1	0.13	5.5	0.25	10.4
1996	24.6	14.8	6.4	259	8.3	..	2.3	..	15.2	9.1	0.14	5.8	0.09	3.7	0.23	9.4
1997	24.3	14.5	6.4	266	8.1	..	2.2	..	15.0	9.0	0.14	5.6	0.10	4.2	0.21	8.6
1998	23.9	14.2	6.8	283	7.8	..	2.5	..	15.0	8.9	0.13	5.6	0.09	3.9	0.20	8.1
1998 March	6.1	14.6	1.7‡	281	0.8	..	..	..	4.1	9.8	0.04	5.8	0.03	4.3	0.05	8.8
1998 June	6.1	14.5	1.7‡	273	2.2	..	..	..	3.8	9.1	0.04	7.1	0.03	4.4	0.05	7.7
1998 Sept	6.2	14.7	1.8‡	285	3.4	..	..	..	3.5	8.2	0.03	5.5	0.02	3.5	0.05	8.0
1998 Dec	5.5	13.0	1.6‡	294	1.4	..	..	..	3.6	8.5	0.02	4.0	0.02	3.3	0.05	8.2
1999 March	5.8‡	13.8‡	1.7‡	295‡	0.9‡	..	..	..	4.7‡	11.3‡	0.03‡	5.7‡	0.02‡	4.0‡	0.06‡	10.2‡
1999 June	5.8‡	13.7‡	1.7‡	300‡	2.2‡	..	..	..	3.7‡	8.7‡	0.04‡	7.5‡	0.03‡	5.8‡	0.07‡	11.5‡
1999 Sept	6.1‡	14.2‡	1.8‡	303‡	..	..	..	..	3.4‡	8.1‡	0.04‡	5.9‡	0.03‡	4.4‡	0.05‡	8.2‡

Notes: 1. Rates for the most recent quarters will be particularly subject to revision, even when standard detail is given, as they are based on provisional numbers or on estimates derived from events registered in the period. 2. Figures for England and Wales represent the numbers of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993. Provisional figures are registrations. 3. The marriage and divorce rates for 1991 onwards differ in part from those previously published because of a revision of the denominators. 4. From 1972 births for England and Wales are excluded if the mother was usually resident outside England and Wales, but included in the total for the United Kingdom. 5. From 1972 deaths for England and for Wales separately exclude deaths to persons usually resident outside England and Wales, but these deaths are included in the totals for England and Wales combined, and the United Kingdom.

Table 2.2 Key demographic and health indicators Constituent countries of the United Kingdom
Numbers (thousands), rates, percentages, mean age

	Population	Live births	Deaths****	Dependency ratio		Live births			Expectation of life (in years) at birth		Infant mortality rate***	
				Children*	Elderly†	TFR**	Outside marriage as percentage of total live births	Mean age of mother at birth (years)	Age-standardised mortality rate††	Males		Females
United Kingdom												
1971	55,928.0	901.6	645.1	43.8	28.0	2.41	8.2	26.2	10,448	68.8	75.0	17.9
1976	56,216.1	675.5	680.8	42.1	29.5	1.74	9.0	26.4	10,486	69.6	75.2	14.5
1981	56,352.2	730.8	658.0	37.1	29.7	1.82	12.5	26.8	9,506	70.8	76.8	11.2
1986	56,851.9	755.0	660.7	33.5	29.6	1.78	21.0	27.0	8,897	71.9	77.7	9.5
1991	57,807.9	792.5	646.2	33.1	29.9	1.82	29.8	27.6	8,107	73.2	78.8	7.4
1992	58,006.5	781.0	634.2	33.3	29.9	1.79	30.8	27.9	7,860	73.4	78.9	6.6
1993	58,191.2	761.7	658.5	33.6	29.9	1.76	31.8	28.1	8,037	73.7	79.1	8.3
1994	58,394.6	750.7	627.6	33.8	29.8	1.74	32.0	28.4	7,622	73.9	79.2	6.2
1995	58,605.8	732.0	645.5	33.8	29.7	1.71	33.6	28.5	7,706	74.1	79.4	6.2
1996	58,801.5	733.4	636.0	33.6	29.6	1.72	35.5	28.6	7,522	74.3‡	79.5‡	6.1
1997	59,008.6	726.8	629.7	33.4	29.5	1.72	36.7	28.8	7,370	74.6‡	79.6‡	5.9‡
1998	59,236.5	717.1	629.2			1.72	37.6	28.9	7,290			
England												
1971	46,411.7	740.1	532.4	42.9	28.1	2.37	8.5		10,278			17.5
1976	46,659.9	550.4	560.3	41.4	29.7	1.70	9.2	26.4	10,271			14.2
1981	46,820.8	598.2	541.0	36.4	29.9	1.79	12.9	26.8	9,298	71.1	77.0	10.9
1986	47,342.4	623.6	544.5	33.1	29.8	1.87	21.4	27.0	8,694	72.0	77.9	9.5
1991	48,208.1	660.8	534.0	32.8	29.9	1.81	30.1	27.7	7,941	73.4	79.0	7.3
1992	48,378.3	651.8	522.7	33.1	30.0	1.79	31.1	27.9	7,678	73.7	79.1	6.5
1993	48,532.7	636.5	541.1	33.4	29.9	1.76	32.0	28.1	7,825	74.0	79.3	6.3
1994	48,707.5	629.0	517.6	33.6	29.8	1.74	32.2	28.4	7,440	74.1	79.4	6.1
1995	48,903.4	613.2	532.6	33.6	29.8	1.71	33.7	28.6	7,526	74.4	79.6	6.1
1996	49,089.1	614.2	524.0	33.4	29.6	1.73	35.5	28.7	7,333	74.9‡	79.9‡	6.1
1997	49,284.2	608.6	519.1	33.3	29.5	1.72	36.7	28.8	7,190			5.9‡
1998	49,494.6	602.5	519.6			1.72	37.5	29.0	7,128			
Wales												
1971	2,740.3	43.1	34.8	43.4	29.8	2.44	7.2		11,175			18.4
1976	2,799.3	33.4	36.3	42.0	30.9	1.79	8.7	26.0	10,858			13.7
1981	2,813.5	35.8	35.0	37.6	31.6	1.87	11.2	26.6	9,846	70.4	76.4	12.6
1986	2,819.6	37.0	34.7	34.4	32.5	1.86	21.1	26.5	9,012	71.6	77.6	9.5
1991	2,891.5	38.1	34.1	34.4	33.4	1.88	32.3	27.0	8,074	73.2	78.9	6.6
1992	2,898.5	37.5	33.8	34.6	33.6	1.87	34.0	27.3	7,886	73.3	78.9	6.0
1993	2,906.5	36.6	35.9	34.9	33.6	1.84	35.2	27.4	8,227	73.5	79.0	5.5
1994	2,913.0	35.4	33.9	35.1	33.6	1.79	36.0	27.7	7,753	73.5	79.0	6.1
1995	2,916.8	34.5	35.6	35.0	33.6	1.78	38.1	27.8	7,953	73.8	79.2	5.8
1996	2,921.1	34.9	34.6	34.7	33.5	1.82	41.2	27.8	7,664	74.0‡	79.2‡	5.6
1997	2,926.9	34.5	34.6	34.5	33.5	1.82	42.8	28.0	7,578	74.4‡	79.4‡	5.9‡
1998	2,933.3	33.4	34.0			1.79	44.4	28.0	7,366			
Scotland												
1971	5,235.6	86.7	61.6	48.2	27.1	2.53	8.1		11,444	67.3	73.7	19.9
1976	5,233.4	64.9	65.3	44.7	28.4	1.80	9.3	26.0	11,675	68.2	74.4	14.8
1981	5,180.2	69.1	63.8	38.2	28.4	1.84	12.2	26.3	10,849	69.1	75.3	11.3
1986	5,123.0	65.8	63.5	33.5	28.0	1.67	20.6	26.6	10,135	70.2	76.2	8.8
1991	5,107.0	67.0	61.0	32.2	28.7	1.70	29.1	27.4	9,254	71.4	77.1	7.1
1992	5,111.2	65.8	60.9	32.3	28.7	1.67	30.3	27.7	9,146	71.5	77.1	6.8
1993	5,120.2	63.3	64.0	32.5	28.7	1.62	31.3	27.9	9,529	71.7	77.3	6.5
1994	5,132.4	61.7	59.3	32.6	28.6	1.58	31.2	28.2	8,840	71.9	77.4	6.2
1995	5,136.6	60.1	60.5	32.5	28.7	1.55	33.7	28.4	8,887	72.1	77.6	6.2
1996	5,128.0	59.3	60.7	32.3	28.7	1.55	36.0	28.5	8,868	72.2	77.8	6.2
1997	5,122.5	59.4	59.5	32.0	28.8	1.57	37.7	28.6	8,623	72.4‡	77.9‡	5.3‡
1998	5,120.0	57.3	59.2			1.54	38.9	28.8	8,533			
Northern Ireland†††												
1971	1,540.4	31.8	17.6	56.6	24.0	3.13	3.8		11,607	67.6	73.7	22.7
1976	1,523.5	26.4	17.0	56.1	25.3	2.70	5.0	27.4	11,746	67.5	73.8	18.3
1981	1,537.7	27.3	16.3	50.6	25.3	2.60	7.0	27.6	10,567	69.2	75.5	13.2
1986	1,566.8	28.2	16.1	46.5	24.7	2.46	12.7	27.6	10,071	70.9	77.1	10.2
1991	1,601.4	26.3	15.1	44.0	25.6	2.18	20.2	28.0	8,564	72.6	78.4	7.4
1992	1,618.4	25.6	15.0	43.6	25.4	2.09	21.9	28.1	8,347	72.7	78.6	6.0
1993	1,631.8	24.9	15.6	43.3	25.4	2.01	21.9	28.4	8,600	73.0	78.7	7.1
1994	1,641.7	24.3	15.1	42.9	25.2	1.95	22.0	28.6	8,256	73.1	78.6	6.1
1995	1,649.0	23.9	15.3	42.3	25.1	1.91	23.1	28.8	8,255	73.5	78.9	7.1
1996	1,663.3	24.6	15.2	41.6	24.9	1.95	25.9	28.8	8,057	73.8	79.2	5.8
1997	1,675.0	24.3	15.0	40.8	25.0	1.93	26.6	29.0	7,810	74.2‡	79.5‡	5.6‡
1998	1,688.6	23.9	15.0			1.91	28.3	29.1	7,438			

‡ Provisional. * Percentage of children under 16 to working population (males 16–64 and females 16–59). † Percentage of males 65 and over and females 60 and over to working population (males 16–64 and females 16–59). ** TFR (the total fertility rate) is the number of children that would be born to a woman if current patterns of fertility persisted throughout her childbearing life. It is sometimes called the TPFPR (the total period fertility rate). †† Per million population. The age-standardised mortality rate makes allowances for changes in the age structure of the population. See Notes to tables. **** Deaths under one year per 1,000 live births. ††† Northern Ireland data has been revised to take account of changed Northern Ireland population estimates from 1981. ***** 1998 deaths figures for England and Wales in *Health Statistics Quarterly* 3 and 4 were incorrectly shown as being final when they were still provisional. The final 1998 figures are those below.

Notes: 1. Some of these indicators are also in other tables. They are brought together to make comparison easier.

2. Figures for England and Wales represent the number of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993.

Table 3.1 **Live births: age of mother** England and Wales
 Numbers (thousands), rates, mean age and TFRs

Year and quarter	Age of mother at birth							Age of mother at birth							Mean age (years)	TFR†	
	All ages	Under 20	20-24	25-29	30-34	35-39	40 and over	All ages	Under 20	20-24	25-29	30-34	35-39	40 and over			
	Total live births (numbers)							Age-specific fertility rates*									
1961	811.3	59.8	249.8	248.5	152.3	77.5	23.3	89.2	37.3	172.6	176.9	103.1	48.1	15.0	27.6	2.77	
1964(max)‡	876.0	76.7	276.1	270.7	153.5	75.4	23.6	92.9	42.5	181.6	187.3	107.7	49.8	13.7	27.2	2.93	
1966	849.8	86.7	285.8	253.7	136.4	67.0	20.1	90.5	47.7	176.0	174.0	97.3	45.3	12.5	26.8	2.75	
1971	783.2	82.6	285.7	247.2	109.6	45.2	12.7	83.5	50.6	152.9	153.2	77.1	32.8	8.7	26.2	2.37	
1976	584.3	57.9	182.2	220.7	90.8	26.1	6.5	60.4	32.2	109.3	118.7	57.2	18.6	4.8	26.4	1.71	
1977(min)‡	569.3	54.5	174.5	207.9	100.8	25.5	6.0	58.1	29.4	103.7	117.5	58.6	18.2	4.4	26.5	1.66	
1981	634.5	56.6	194.5	215.8	126.6	34.2	6.9	61.3	28.1	105.3	129.1	68.6	21.7	4.9	26.8	1.80	
1986	661.0	57.4	192.1	229.0	129.5	45.5	7.6	60.6	30.1	92.7	124.0	78.1	24.6	4.8	27.0	1.77	
1991	699.2	52.4	173.4	248.7	161.3	53.6	9.8	63.6	33.0	89.3	119.4	86.7	32.1	5.3	27.7	1.82	
1992	689.7	47.9	163.3	244.8	166.8	56.7	10.2	63.5	31.7	86.2	117.3	87.2	33.4	5.8	27.9	1.80	
1993	673.5	45.1	152.0	236.0	171.1	58.8	10.5	62.6	31.0	82.7	114.1	87.0	34.1	6.2	28.1	1.76	
1994	664.7	42.0	140.2	229.1	179.6	63.1	10.7	61.9	29.0	79.4	112.1	88.7	35.8	6.4	28.4	1.75	
1995	648.1	41.9	130.7	217.4	181.2	65.5	11.3	60.4	28.5	76.8	108.6	87.3	36.2	6.8	28.5	1.72	
1996	649.5	44.7	125.7	211.1	186.4	69.5	12.1	60.5	29.8	77.5	106.9	88.6	37.2	7.2	28.6	1.73	
1997	643.1	46.4	118.6	202.8	187.5	74.9	12.9	59.8	30.2	76.6	104.8	88.8	38.9	7.6	28.8	1.73	
1998	635.9	48.3	113.5	193.1	188.5	78.9	13.6	59.0	30.9	75.5	102.2	89.9	39.8	7.8	28.9	1.72	
1996	Dec	164.2	12.0	32.1	52.6	46.6	17.7	3.2	61.9	32	82	109	90	38	8	28.6	1.79
1997	March	158.1	11.5	29.8	50.4	45.7	17.7	3.1	60.8	31	78	107	90	38	8	28.7	1.75
	June	163.3	11.3	29.5	51.6	48.4	19.2	3.3	60.4	29	75	106	91	40	8	28.9	1.74
	Sept	164.9	11.8	30.3	52.1	48.1	19.3	3.3	59.0	30	76	104	88	38	7	28.8	1.71
	Dec	156.8	11.8	29.0	48.7	45.4	18.7	3.2	59.0	31	76	103	87	39	8	28.8	1.72
1998	March	155.8	11.7	27.8	47.9	46.2	18.8	3.3	59.4	31	75	103	90	39	8	28.9	1.73
	June	158.6	11.4	27.5	48.6	48.1	19.7	3.3	58.7	29	73	103	91	40	8	29.0	1.71
	Sept	166.1	12.7	29.8	50.6	48.9	20.7	3.6	59.6	31	76	104	90	40	8	28.9	1.74
	Dec	155.4	12.4	28.5	46.1	45.4	19.6	3.4	58.6	32	77	101	88	40	8	28.9	1.72
1999	March‡	152.1	12.0	27.1	45.0	45.0	19.6	3.4	58.0	31	74	100	89	40	8	28.9	1.70
	June‡	157.2	11.8	27.2	46.2	48.0	20.5	3.6	58.0	30	72	100	92	40	8	29.1	1.70
	Sept‡	159.8	12.5	28.6	46.8	47.4	20.9	3.7	56.9	30	73	99	88	39	8	29.0	1.68

* Births per 1,000 women in the age-group; all quarterly age-specific fertility rates are seasonally adjusted.

† TFR (the total fertility rate) is the number of children that would be born to a woman if current patterns of fertility persisted throughout her childbearing life. It is sometimes called the TPFRR (the total period fertility rate). During the post SecondWorldWar period the TFR reached a maximum in 1964 and a minimum in 1977. Quarterly TFRs are seasonally adjusted.

‡ Provisional.

Note: The rates for women of all ages, under 20, and 40 and over are based upon the populations of women aged 15-44, 15-19, and 40-44 respectively.

Table 3.2

Live births outside marriage: age of mother and type of registration
Numbers (thousands), mean age and percentages

England and Wales

Year and quarter	Age of mother at birth								Mean age (years)	Age of mother at birth								Registration*		
	All ages	Under 20	20-24	25-29	30-34	35-39	40 and over	All ages		Under 20	20-24	25-29	30-34	35-39	40 and over	Joint		Sole		
																Same address†	Different address‡			
Live births outside marriage (numbers)								Percentage of total births								As a percentage of all births outside marriage				
1971	65.7	21.6	22.0	11.5	6.2	3.2	1.1	23.7	8.4	26.1	7.7	4.7	5.7	7.0	9.0	45.5		54.5		
1976	53.8	19.8	16.6	9.7	4.7	2.3	0.7	23.3	9.2	34.2	9.1	4.4	5.2	8.6	10.1	51.0		49.0		
1981	81.0	26.4	28.8	14.3	7.9	1.3	0.9	23.4	12.8	46.7	14.8	6.6	6.2	3.9	12.5	58.2		41.8		
1986	141.3	39.6	54.1	27.7	13.1	5.7	1.1	23.8	21.4	69.0	28.2	12.1	10.1	12.6	14.7	46.6	19.6	33.8		
1991	211.3	43.4	77.8	52.4	25.7	9.8	2.1	24.8	30.2	82.9	44.9	21.1	16.0	18.3	21.3	54.6	19.8	25.6		
1992	215.2	40.1	77.1	55.9	28.9	10.9	2.3	25.2	31.2	83.7	47.2	22.8	17.3	19.3	22.9	55.4	20.7	23.9		
1993	216.5	38.2	75.0	57.5	31.4	11.9	2.5	25.4	32.2	84.8	49.4	24.4	18.4	20.2	23.5	54.8	22.0	23.2		
1994	215.5	35.9	71.0	58.5	34.0	13.4	2.7	25.8	32.4	85.5	50.6	25.5	18.9	21.2	25.2	57.5	19.8	22.7		
1995	219.9	36.3	69.7	59.6	37.0	14.4	3.0	25.9	33.9	86.6	53.3	27.4	20.4	22.0	26.2	58.1	20.1	21.8		
1996	232.7	39.3	71.1	62.3	40.5	16.2	3.2	26.0	35.8	88.0	56.5	29.5	21.7	23.4	26.7	58.1	19.9	21.9		
1997	238.2	41.1	69.5	63.4	42.2	18.2	3.7	26.2	37.0	88.7	58.6	31.3	22.5	25.0	28.6	59.5	19.3	21.2		
1998	240.6	43.0	67.8	62.4	43.9	19.6	3.9	26.3	37.8	89.1	59.7	32.3	23.3	24.8	29.0	60.9	18.3	20.8		
1996 Dec	61.3	10.6	18.7	16.4	10.5	4.2	0.8	26.0	37.3	87.9	58.2	31.2	22.6	23.9	26.7	58.2	19.9	21.8		
1997 March	58.5	10.2	17.4	15.7	10.2	4.2	0.9	26.1	37.0	88.7	58.4	31.0	22.4	23.9	28.7	58.4	19.5	22.1		
1997 June	58.9	10.1	17.1	15.5	10.6	4.7	0.9	26.3	36.1	89.1	58.0	30.1	22.0	24.3	28.4	59.6	19.4	21.0		
1997 Sept	61.4	10.5	17.9	16.5	10.9	4.7	0.9	26.2	37.3	88.8	58.9	31.8	22.7	24.4	27.8	59.9	18.9	21.2		
1997 Dec	59.3	10.4	17.2	15.7	10.4	4.6	0.9	26.2	37.8	88.3	59.2	32.2	23.0	24.8	29.3	60.0	19.2	20.7		
1998 March	58.5	10.4	16.5	15.3	10.7	4.6	1.0	26.3	37.5	89.0	59.5	31.9	23.1	24.4	29.6	60.5	18.4	21.1		
1998 June	58.4	10.3	16.2	15.4	10.8	4.7	0.9	26.4	36.8	89.6	59.1	31.8	22.5	24.0	28.3	61.0	18.2	20.8		
1998 Sept	63.2	11.3	17.9	16.3	11.5	5.2	1.0	26.3	38.1	89.2	60.0	32.3	23.6	25.2	28.5	60.9	18.4	20.7		
1998 Dec	60.5	11.0	17.2	15.4	10.9	5.0	1.0	26.3	38.9	88.5	60.4	33.3	24.0	25.6	29.6	61.2	18.4	20.4		
1999 March‡	59.0	10.7	16.4	15.0	10.9	5.0	1.0	26.3	38.8	89.7	60.5	33.4	24.2	25.4	29.5	61.4	18.1	20.4		
1999 June‡	59.8	10.5	16.5	15.3	11.2	5.2	1.1	26.5	38.0	89.3	60.6	33.0	23.4	25.3	31.3	61.7	18.2	20.1		
1999 Sept‡	62.8	11.1	17.6	16.0	11.7	5.4	1.1	26.4	39.3	88.8	61.7	34.1	24.6	25.7	29.9	62.3	18.1	19.6		

* Births outside marriage can be registered by both the mother and father (joint) or by the mother alone (sole).
 † Usual address of parents.
 ‡ Provisional.

Table 4.1

Conceptions: age of woman at conception

England and Wales (residents)

Numbers (thousands) and rates; and percentage terminated by abortion

Year and quarter	Age of woman at conception								
	All ages	Under 16	Under 18	Under 20	20-24	25-29	30-34	35-39	40 and over
(a) numbers (thousands)									
1990	871.5	8.1	44.8	113.3	244.5	284.2	161.4	56.0	12.0
1991	853.7	7.5	40.1	101.6	233.3	281.5	167.5	57.6	12.1
1992	828.0	7.2	37.6	93.4	215.9	274.9	172.0	59.6	12.2
1993	819.0	7.3	35.8	87.2	203.6	271.7	181.0	63.0	12.6
1994	801.6	7.8	36.1	85.4	190.4	261.8	185.0	66.2	12.9
1995	790.3	8.1	37.9	86.6	181.1	250.3	190.3	68.7	13.2
1996	816.9	8.9	43.5	94.9	179.8	252.6	200.0	75.5	14.1
1997	800.4	8.3	43.4	96.0	167.3	242.6	200.9	78.9	14.7
1996 March	206.3	2.3	10.9	24.2	47.3	64.0	49.2	18.3	3.4
June	200.8	2.3	10.9	23.7	44.6	61.9	48.7	18.2	3.6
Sept	202.6	2.1	10.5	22.6	43.1	63.2	50.8	19.2	3.6
Dec	207.2	2.1	11.2	24.2	44.9	63.5	51.2	19.8	3.6
1997 March	194.1	2.0	10.6	23.2	41.6	59.4	47.7	18.6	3.6
June	198.5	2.2	11.0	23.9	41.8	59.9	49.8	19.5	3.8
Sept	199.2	2.0	10.4	23.3	40.4	60.7	51.2	19.9	3.6
Dec	208.6	2.1	11.4	25.6	43.5	62.6	52.2	20.8	3.8
1998 March‡	196.6	2.1	11.2	25.3	41.2	57.7	48.9	19.9	3.6
June‡	195.9	2.1	11.0	25.3	40.5	56.8	49.0	20.5	3.8
Sept‡	200.5	2.1	10.7	24.7	39.9	59.0	51.8	21.1	3.9
(b) rates (conceptions per thousand women in age-group)									
1990	79.2	9.5	47.7	68.0	124.0	138.0	89.7	33.6	6.6
1991	77.7	8.9	44.6	64.1	120.2	135.1	90.1	34.4	6.6
1992	76.3	8.4	43.6	61.9	114.0	131.7	89.9	35.1	6.9
1993	76.1	8.1	42.5	59.9	110.8	131.4	92.0	36.5	7.4
1994	74.7	8.3	42.0	58.9	107.8	128.1	91.3	37.5	7.6
1995	73.7	8.6	42.0	58.9	106.3	125.0	91.7	37.9	7.9
1996	76.1	9.5	46.4	63.3	110.9	127.9	95.1	40.4	8.4
1997	74.4	8.9	45.9	62.6	108.0	125.4	95.2	41.0	8.7
1996 March	77.3	10.0	47.5	65.6	115.1	129.6	94.6	39.8	8.1
June	75.2	9.8	46.9	63.9	109.8	125.9	93.4	39.4	8.6
Sept	75.0	9.1	44.4	59.9	106.3	127.7	96.1	40.8	8.5
Dec	76.7	9.0	47.3	63.8	112.0	128.9	96.7	41.6	8.5
1997 March	73.2	8.6	45.5	61.9	107.1	123.6	91.7	39.6	8.5
June	74.1	9.4	46.8	62.6	107.5	123.8	94.6	40.8	8.9
Sept	73.5	8.5	43.9	60.2	103.8	124.9	96.3	41.0	8.3
Dec	76.9	8.9	47.8	65.6	112.7	129.6	98.4	42.4	8.9
1998 March‡	74.1	9.1	48.3	66.0	109.7	122.7	94.3	41.2	8.5
June‡	73.0	8.9	47.1	65.0	107.5	120.1	93.7	41.7	8.9
Sept‡	73.9	8.9	45.4	62.6	105.3	124.6	98.2	42.0	9.0
(c) percentage terminated by abortion									
1990	19.9	50.8	41.1	35.7	22.3	13.5	13.8	23.1	43.2
1991	19.4	51.1	39.9	34.5	22.2	13.4	13.7	22.0	41.6
1992	19.3	48.6	39.1	33.9	22.3	13.9	13.9	22.2	41.5
1993	19.2	49.9	39.2	34.3	22.8	13.9	13.5	21.5	40.2
1994	19.5	50.3	39.8	34.7	23.4	14.3	13.6	21.1	40.9
1995	19.7	47.6	38.7	34.6	24.2	14.8	13.6	20.7	38.0
1996	20.8	49.2	40.0	36.2	25.7	15.6	14.1	21.2	37.6
1997	21.3	49.7	40.6	36.8	26.7	16.4	14.2	21.0	38.0
1996 March	21.0	47.2	39.5	36.1	25.5	15.9	14.4	21.8	37.1
June	21.3	49.2	40.7	36.6	26.5	16.0	14.4	21.8	38.2
Sept	19.7	50.4	39.1	35.2	24.7	14.9	13.3	20.2	37.3
Dec	21.1	50.2	40.8	37.0	26.3	15.8	14.2	21.0	37.9
1997 March	21.4	48.4	39.7	36.0	26.6	16.6	14.5	21.0	38.6
June	21.7	49.5	40.3	36.7	27.1	16.8	14.6	21.9	39.1
Sept	20.5	48.1	40.6	36.6	25.8	15.8	13.5	20.7	36.4
Dec	21.6	52.5	41.6	37.6	27.2	16.5	14.3	20.6	37.8
1998 March‡	22.3	51.4	41.2	37.3	27.7	17.3	15.2	21.7	37.0
June‡	22.8	52.7	42.2	38.2	28.4	17.6	15.3	22.2	38.9
Sept‡	21.7	52.5	42.2	37.9	27.3	16.6	14.5	21.3	37.6

‡ Provisional

Notes: 1. Conceptions are estimates derived from birth registrations and abortion notifications.

2. Rates for women of all ages, under 16, under 18, under 20 and 40 and over are based on the population of women aged 15-44, 13-15, 15-17, 15-19 and 40-44 respectively.

Table 4.2 **Abortions: residents and non-residents; age and gestation (residents only)** England and Wales
 Numbers (thousands) and rates; and percentages for gestation weeks

Year and quarter	All ages			All women (residents)							Gestation weeks (percentages)			
	All women	Residents**	Non-residents	Age group							Under 9	9-12	13-19	20 and over
				Under 16	16-19	20-24	25-29	30-34	35-44	45 and over				
Numbers (thousands)											Percentages			
1971	126.8	94.6	32.2	2.3	18.2	24.5	17.3	14.2	15.9	0.5	16.6	57.9	21.8	1.0
1976	129.7	101.9	27.8	3.4	24.0	23.6	19.3	14.6	14.7	0.5	24.8	55.8	15.0	1.1
1981	162.5	128.6	33.9	3.5	31.4	34.3	21.9	18.7	17.6	0.6	31.0	53.4	13.5	1.3
1986	172.3	147.6	24.7	3.9	33.8	45.3	28.7	18.0	17.5	0.4	33.4	53.8	11.5	1.4
1991	179.5	167.4	12.1	3.2	31.1	52.7	38.6	23.4	17.9	0.4	35.2	52.9	10.6	1.2
1992	172.1	160.5	11.6	3.0	27.6	49.0	38.4	23.9	18.1	0.5	36.8	51.8	10.3	1.2
1993	168.7	157.8	10.9	3.1	25.8	46.8	38.1	24.7	18.8	0.5	39.2	49.7	9.9	1.2
1994	166.9	156.5	10.3	3.2	25.1	44.9	38.1	25.5	19.1	0.4	40.5	48.4	9.9	1.2
1995	163.6	154.3	9.3	3.2	24.9	43.4	37.3	25.8	19.2	0.5	41.9	47.3	9.6	1.2
1996	177.5	167.9	9.6	3.6	28.8	46.4	39.3	28.2	21.1	0.4	40.0	48.7	10.1	1.3
1997	179.7	170.1	9.6	3.4	29.9	45.0	40.2	28.9	22.3	0.5	41.2	47.9	9.6	1.2
1998	187.4	177.9	9.5	3.8	33.2	45.8	40.4	30.4	23.7	0.5	41.4	47.6	9.7	1.3
1996 March	45.7	43.2	2.4	0.9	7.4	12.4	10.2	7.2	5.2	0.1	38.0	50.5	10.2	1.2
June	45.5	42.9	2.5	0.9	7.3	11.9	10.1	7.2	5.4	0.1	38.9	49.3	10.5	1.4
Sept	44.0	41.6	2.4	0.9	7.1	11.2	9.8	7.0	5.4	0.1	40.0	48.3	10.3	1.4
Dec	42.4	40.1	2.2	0.9	7.0	10.8	9.3	6.8	5.2	0.1	43.1	46.3	9.3	1.3
1997 March	46.2	43.6	2.5	0.9	7.7	11.8	10.3	7.3	5.5	0.1	37.4	50.2	11.1	1.3
June	45.2	42.8	2.4	0.8	7.4	11.4	10.2	7.2	5.6	0.1	41.3	48.0	9.4	1.2
Sept	45.1	42.7	2.4	0.9	7.5	11.1	10.0	7.3	5.8	0.1	42.0	47.2	9.6	1.2
Dec	43.3	41.0	2.3	0.8	7.4	10.7	9.6	7.0	5.4	0.1	44.5	46.0	8.3	1.2
1998 March	48.4	45.9	2.5	1.0	8.7	12.0	10.5	7.7	5.8	0.1	37.5	50.4	10.8	1.3
June	46.4	44.0	2.4	0.9	8.1	11.4	10.1	7.6	5.8	0.1	40.8	48.3	9.5	1.4
Sept	46.9	44.5	2.4	1.0	8.3	11.3	10.0	7.6	6.1	0.1	42.5	46.7	9.5	1.2
Dec	45.7	43.5	2.2	0.9	8.1	11.0	9.8	7.5	5.9	0.1	44.9	45.0	8.9	1.2
1999‡ March	47.0	44.7	2.4	0.9	8.6	11.7	9.8	7.5	6.0	0.1	40.2	48.1	10.3	1.4
June	44.5	42.2	2.4	0.9	7.9	10.9	9.4	7.1	5.8	0.1	42.5	46.7	9.2	1.4
Sept	45.3	42.9	2.4	0.9	8.1	11.1	9.4	7.2	6.0	0.1	43.3	46.1	9.3	1.4
Rates (per thousand women 14-49)														
1971	:	8.4	:	3.5	13.9	13.1	10.7	10.0	5.6	0.3				
1976	:	8.9	:	4.4	16.9	14.2	10.4	9.2	5.3	0.3				
1981	:	10.6	:	4.5	19.4	19.1	13.3	10.3	5.9	0.4				
1986	:	11.7	:	5.4	22.0	21.9	15.5	10.9	5.1	0.3				
1991	:	13.1	:	5.6	24.0	27.2	18.6	12.7	5.1	0.3				
1992	:	12.5	:	5.4	22.4	25.9	18.4	12.5	5.2	0.3				
1993	:	12.3	:	5.3	22.0	25.5	18.4	12.6	5.5	0.3				
1994	:	12.2	:	5.2	22.0	25.4	18.6	12.6	5.6	0.2				
1995	:	12.0	:	5.2	21.7	25.5	18.6	12.4	5.5	0.2				
1996	:	13.0	:	5.8	24.3	28.6	19.9	13.4	6.0	0.2				
1997	:	13.3	:	5.5	24.5	29.0	20.8	13.7	6.1	0.3				
1998	:	13.9	:	6.1	26.5	30.4	21.4	14.5	6.4	0.3				
1996 March	:	13.5	:	5.7	25.0	30.7	20.7	13.8	5.9	0.2				
June	:	13.4	:	5.9	24.9	29.6	20.6	13.7	6.1	0.2				
Sept	:	12.8	:	5.9	24.0	27.5	19.7	13.3	6.1	0.2				
Dec	:	12.4	:	5.8	23.5	26.5	18.7	12.9	5.8	0.3				
1997 March	:	13.8	:	5.7	25.5	30.8	21.7	14.1	6.2	0.2				
June	:	13.4	:	5.4	24.1	29.6	21.1	13.8	6.2	0.3				
Sept	:	13.2	:	5.7	24.3	28.3	20.6	13.8	6.3	0.3				
Dec	:	12.7	:	5.3	24.0	27.4	19.7	13.1	5.9	0.3				
1998 March	:	14.6	:	6.4	28.2	32.4	22.4	14.9	6.4	0.3				
June	:	13.8	:	5.8	26.0	30.4	21.4	14.5	6.3	0.3				
Sept	:	13.8	:	6.1	26.2	29.9	21.1	14.4	6.6	0.3				
Dec	:	13.5	:	5.9	25.7	29.1	20.5	14.3	6.3	0.3				
1999‡ March	:	14.0	:	5.8	27.2	31.1	21.7	14.4	6.3	0.3				
June	:	13.2	:	5.5	25.2	29.1	20.0	13.6	6.2	0.3				
Sept	:	13.4	:	5.6	25.5	29.5	20.8	14.0	6.3	0.3				

‡ Provisional.
 * The denominators used to calculate rates are the 1999 population projections.
 ** Includes cases with not stated age and/or gestation weeks.

Table 5.1

Expectation of life (in years) at birth and selected age

Constituent countries of the United Kingdom

Year	Males								Year	Females							
	At birth	At age								At birth	At age						
		5	20	30	50	60	70	80			5	20	30	50	60	70	80
United Kingdom*																	
1971	68.8	65.3	50.9	41.3	23.0	15.3	9.5	5.5	1971	75.0	71.4	56.7	47.0	28.3	19.8	12.5	6.9
1976	69.6	66.0	51.4	41.9	23.4	15.7	9.6	5.6	1976	75.2	72.0	57.3	47.5	28.7	20.3	12.9	7.2
1981	70.8	66.9	52.3	42.7	24.1	16.3	10.1	5.8	1981	76.8	72.7	57.9	48.1	29.2	20.8	13.3	7.5
1986	71.9	67.8	53.2	43.6	24.9	16.8	10.5	6.0	1986	77.7	73.5	58.7	48.9	29.8	21.2	13.8	7.9
1991	73.2	68.9	54.3	44.7	26.0	17.7	11.1	6.4	1991	78.8	74.4	59.6	49.7	30.7	21.9	14.4	8.4
1993	73.7	69.3	54.6	45.1	26.4	18.0	11.3	6.5	1993	79.1	74.6	59.8	50.1	30.9	22.1	14.5	8.4
1994	73.9	69.5	54.8	45.2	26.5	18.1	11.3	6.5	1994	79.2	74.7	59.9	50.1	31.0	22.2	14.5	8.4
1995	74.1	69.7	55.0	45.5	26.8	18.4	11.5	6.6	1995	79.4	74.9	60.1	50.3	31.2	22.4	14.6	8.5
1996‡	74.3	69.9	55.2	45.7	26.9	18.5	11.6	6.6	1996‡	79.5	75.0	60.1	50.3	31.2	22.4	14.6	8.5
1997‡	74.6	70.2	55.5	45.9	27.2	18.8	11.8	6.7	1997‡	79.6	75.1	60.3	50.5	31.4	22.6	14.7	8.5
England and Wales																	
1971	69.0	65.6	51.1	41.5	23.1	15.4	9.5	5.5	1971	75.2	71.6	56.9	47.1	28.4	20.0	12.6	7.0
1976	69.9	66.2	51.6	42.1	23.5	15.8	9.7	5.7	1976	76.0	72.2	57.4	47.7	28.8	20.4	13.0	7.2
1981	71.0	67.1	52.5	42.9	24.3	16.4	10.1	5.8	1981	77.0	72.9	58.1	48.3	29.4	20.9	13.4	7.5
1986	72.1	68.0	53.4	43.8	25.0	16.9	10.6	6.1	1986	77.9	73.6	58.9	49.0	30.0	21.4	13.9	7.9
1991	73.4	69.1	54.5	44.9	26.2	17.9	11.2	6.4	1991	79.0	74.6	59.8	49.9	30.8	22.1	14.5	8.4
1993	74.0	69.6	54.9	45.3	26.5	18.2	11.4	6.5	1993	79.3	74.8	60.0	50.2	31.1	22.3	14.6	8.5
1994	74.1	69.7	55.0	45.4	26.7	18.3	11.4	6.5	1994	79.4	74.9	60.1	50.3	31.2	22.3	14.6	8.5
1995	74.4	70.0	55.2	45.7	26.9	18.5	11.6	6.6	1995	79.6	75.1	60.3	50.4	31.3	22.5	14.7	8.6
1996‡	74.6	70.2	55.4	45.9	27.1	18.7	11.7	6.7	1996‡	79.7	75.2	60.3	50.5	31.4	22.6	14.7	8.6
1997‡	74.8	70.4	55.7	46.1	27.4	18.9	11.8	6.8	1997‡	79.8	75.3	60.5	50.7	31.6	22.7	14.8	8.6
England																	
1981	71.1	67.1	52.5	42.9	24.3	16.4	10.1	5.8	1981	77.0	72.9	58.2	48.4	29.4	20.9	13.4	7.5
1986	72.2	68.1	53.4	43.8	25.1	17.0	10.6	6.1	1986	77.9	73.7	58.9	49.1	30.0	21.4	13.9	7.9
1991	73.4	69.1	54.5	44.9	26.2	17.9	11.2	6.4	1991	79.0	74.6	59.8	49.9	30.9	22.1	14.5	8.4
1993	74.0	69.6	54.9	45.3	26.6	18.2	11.4	6.5	1993	79.3	74.9	60.0	50.2	31.1	22.3	14.6	8.5
1994	74.1	69.7	55.0	45.5	26.7	18.3	11.4	6.6	1994	79.4	74.9	60.1	50.3	31.2	22.4	14.6	8.5
1995	74.4	70.0	55.3	45.7	27.0	18.5	11.6	6.6	1995	79.6	75.1	60.3	50.5	31.4	22.5	14.7	8.6
1996‡	74.6	70.2	55.5	45.9	27.2	18.7	11.7	6.7	1996‡	79.7	75.2	60.4	50.6	31.4	22.6	14.7	8.6
1997‡	74.9	70.5	55.7	46.2	27.4	18.9	11.9	6.8	1997‡	79.9	75.4	60.5	50.7	31.6	22.7	14.8	8.6
Wales																	
1981	70.4	66.5	51.9	42.2	23.6	15.8	9.7	5.5	1981	76.4	72.3	57.5	47.7	28.9	20.4	13.1	7.4
1986	71.6	67.5	52.9	43.3	24.6	16.6	10.4	6.0	1986	77.6	73.3	58.5	48.7	29.7	21.1	13.8	7.8
1991	73.2	68.9	54.2	44.6	25.9	17.6	11.0	6.4	1991	78.9	74.4	59.6	49.8	30.7	21.9	14.4	8.4
1993	73.5	69.1	54.4	44.9	26.1	17.8	11.2	6.6	1993	79.0	74.5	59.7	49.9	30.8	22.0	14.4	8.4
1994	73.5	69.1	54.4	44.9	26.2	17.9	11.1	6.5	1994	79.0	74.5	59.7	49.8	30.8	22.0	14.4	8.4
1995	73.8	69.4	54.7	45.2	26.5	18.1	11.3	6.6	1995	79.2	74.7	59.8	50.0	30.9	22.2	14.5	8.5
1996‡	74.0	69.5	54.8	45.4	26.6	18.3	11.4	6.5	1996‡	79.2	74.7	59.8	50.0	31.0	22.2	14.5	8.5
1997‡	74.4	69.9	55.2	45.7	27.0	18.6	11.6	6.7	1997‡	79.4	74.9	60.0	50.2	31.1	22.4	14.6	8.5
Scotland																	
1971	67.3	64.0	49.5	40.1	22.0	14.6	9.1	5.4	1971	73.7	70.1	55.4	45.6	27.2	19.0	11.9	6.7
1976	68.2	64.4	49.9	40.4	22.3	14.9	9.2	5.3	1976	74.4	70.6	55.9	46.1	27.6	19.4	12.4	6.9
1981	69.1	65.2	50.6	41.1	22.9	15.4	9.5	5.5	1981	75.3	71.2	56.4	46.7	27.9	19.7	12.7	7.2
1986	70.2	66.0	51.4	41.9	23.5	15.8	9.9	5.7	1986	76.2	71.9	57.1	47.3	28.4	20.1	13.0	7.5
1991	71.4	67.1	52.5	43.0	24.6	16.6	10.4	6.1	1991	77.1	72.6	57.8	48.1	29.1	20.6	13.4	7.8
1993	71.7	67.3	52.7	43.2	24.8	16.8	10.5	6.0	1993	77.3	72.8	58.0	48.2	29.3	20.7	13.4	7.8
1994	71.9	67.5	52.8	43.4	24.9	16.9	10.6	6.1	1994	77.4	72.9	58.1	48.3	29.4	20.8	13.5	7.8
1995	72.1	67.7	53.1	43.6	25.2	17.2	10.8	6.2	1995	77.6	73.2	58.3	48.6	29.6	21.0	13.7	7.9
1996	72.2	67.8	53.1	43.7	25.3	17.3	10.9	6.2	1996	77.8	73.2	58.4	48.7	29.7	21.1	13.7	7.9
1997‡	72.4	67.9	53.3	43.9	25.5	17.5	11.0	6.3	1997‡	77.9	73.4	58.6	48.8	29.9	21.3	13.8	7.9
Northern Ireland*																	
1981	69.2	65.4	50.9	41.5	23.2	15.6	9.7	5.8	1981	75.5	71.6	56.8	47.1	28.3	20.0	12.8	7.3
1986	70.9	66.8	52.2	42.7	24.2	16.4	10.4	6.2	1986	77.1	72.9	58.1	48.3	29.3	20.8	13.4	7.8
1991	72.6	68.2	53.6	44.1	25.5	17.3	11.0	6.4	1991	78.4	74.0	59.2	49.4	30.3	21.6	14.2	8.3
1993	73.0	68.6	54.0	44.6	25.8	17.6	11.1	6.5	1993	78.7	74.3	59.4	49.6	30.6	21.8	14.3	8.4
1994	73.1	68.8	54.2	44.7	26.0	17.8	11.2	6.6	1994	78.6	74.2	59.4	49.6	30.6	21.9	14.3	8.4
1995	73.5	69.1	54.5	45.0	26.3	18.0	11.3	6.6	1995	78.9	74.5	59.6	49.8	30.8	22.0	14.4	8.4
1996	73.8	69.4	54.7	45.2	26.5	18.2	11.3	6.6	1996	79.2	74.7	59.9	50.0	30.9	22.1	14.4	8.4
1997‡	74.2	69.7	55.0	45.5	26.8	18.3	11.5	6.6	1997‡	79.5	75.0	60.2	50.3	31.2	22.4	14.5	8.4

Note: Figures from 1981 are calculated from the population estimates revised in the light of the 1991 Census. All figures are based on a three-year period; see Notes to tables for further information.

‡ Provisional.

* United Kingdom and Northern Ireland data has been revised to take account of changed Northern Ireland population estimates from 1981.

Table 6.1

Deaths: age and sex**
Numbers (thousands) and rates

England and Wales

Year and quarter	All ages	Age group												
		Under 1*	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65-74	75-84	85 and over
Numbers (thousands)														
Males														
1971	288.4	7.97	1.23	0.92	0.69	1.54	1.77	3.05	6.68	21.0	55.7	89.8	71.9	26.1
1976	300.1	4.88	0.88	0.68	0.64	1.66	1.66	3.24	5.93	20.4	52.0	98.7	80.3	29.0
1981	289.0	4.12	0.65	0.45	0.57	1.73	1.58	3.18	5.54	16.9	46.9	92.2	86.8	28.5
1986	287.9	3.72	0.57	0.32	0.38	1.43	1.75	3.10	5.77	14.4	43.6	84.4	96.2	32.2
1991	277.6	2.97	0.55	0.34	0.35	1.21	1.76	3.69	6.16	13.3	34.9	77.2	95.8	39.3
1992	271.7	2.61	0.49	0.30	0.32	0.97	1.62	3.75	5.95	13.1	33.7	76.4	92.7	39.9
1993	279.6	2.41	0.51	0.28	0.34	0.91	1.60	3.81	5.78	13.4	33.3	78.9	93.8	44.5
1994	267.6	2.37	0.43	0.28	0.33	0.84	1.55	4.07	5.77	12.9	31.3	76.3	88.2	43.2
1995	274.4	2.31	0.39	0.27	0.34	0.91	1.53	4.04	5.88	13.5	31.0	75.0	92.3	47.1
1996	268.7	2.27	0.44	0.24	0.29	0.93	1.41	4.06	5.84	13.6	30.1	71.0	90.7	47.8
1997	264.9	2.14	0.41	0.27	0.33	0.95	1.44	3.94	5.71	13.5	28.9	68.0	90.2	49.1
1998	264.7	2.07	0.41	0.24	0.29	0.88	1.29	4.01	5.90	13.6	29.1	66.1	90.5	50.4
Females														
1971	278.9	5.75	0.98	0.57	0.42	0.63	0.79	1.84	4.53	13.3	30.8	64.0	95.0	60.4
1976	298.5	3.46	0.59	0.45	0.42	0.62	0.67	1.94	4.04	12.8	29.6	67.1	104.7	72.1
1981	288.9	2.90	0.53	0.30	0.37	0.65	0.64	1.82	3.74	10.5	27.2	62.8	103.6	73.9
1986	293.3	2.59	0.49	0.25	0.27	0.56	0.67	1.65	3.83	8.8	25.8	58.4	106.5	83.6
1991	292.5	2.19	0.44	0.25	0.22	0.46	0.64	1.73	3.70	8.4	21.3	54.2	103.3	95.7
1992	286.6	1.93	0.39	0.21	0.20	0.43	0.62	1.72	3.72	8.3	20.6	53.4	99.5	95.5
1993	299.2	1.84	0.37	0.19	0.25	0.39	0.58	1.80	3.63	8.6	20.4	55.2	100.9	105.0
1994	285.6	1.75	0.36	0.19	0.20	0.36	0.54	1.77	3.67	8.7	19.0	53.9	94.2	101.0
1995	295.2	1.68	0.33	0.20	0.21	0.38	0.50	1.86	3.64	9.0	18.9	53.0	97.2	108.4
1996	291.5	1.69	0.32	0.18	0.20	0.43	0.51	1.85	3.66	8.9	18.2	50.2	96.7	108.7
1997	290.4	1.66	0.30	0.18	0.21	0.43	0.49	1.72	3.74	9.0	18.0	48.3	95.5	110.9
1998	290.3	1.56	0.31	0.18	0.19	0.41	0.48	1.72	3.68	9.1	17.9	46.9	94.7	113.2
Rates (deaths per 1,000 population in each age group)														
Males														
1971	12.1	19.8	0.76	0.44	0.37	0.90	0.93	0.97	2.31	7.07	20.1	50.5	113.0	231.8
1976	12.5	16.2	0.65	0.34	0.31	0.88	0.96	0.92	2.09	6.97	19.6	50.3	116.4	243.2
1981	12.0	12.6	0.53	0.27	0.29	0.82	0.83	0.89	1.83	6.11	17.7	45.6	105.2	226.5
1986	11.8	11.0	0.44	0.21	0.23	0.71	0.82	0.87	1.67	5.27	16.6	42.9	101.1	214.8
1991	11.2	8.3	0.40	0.21	0.23	0.69	0.86	0.94	1.76	4.62	13.8	38.5	93.6	197.1
1992	10.8	7.3	0.34	0.18	0.20	0.61	0.82	0.91	1.71	4.29	13.4	37.3	90.1	193.9
1993	11.1	7.0	0.36	0.16	0.21	0.59	0.83	0.91	1.67	4.24	13.3	37.9	93.3	202.3
1994	10.6	6.9	0.31	0.16	0.20	0.55	0.83	0.96	1.66	3.99	12.4	36.2	89.5	188.6
1995	10.8	6.9	0.28	0.15	0.21	0.58	0.86	0.95	1.67	4.08	12.3	36.1	89.4	196.0
1996	10.5	7.0	0.32	0.13	0.18	0.58	0.83	0.95	1.62	4.02	12.0	34.5	85.1	192.1
1997	10.3	6.5	0.31	0.15	0.19	0.58	0.89	0.93	1.54	3.94	11.5	33.2	82.5	190.3
1998	10.3	6.4	0.31	0.14	0.17	0.53	0.82	0.96	1.55	3.94	11.3	32.4	81.2	187.2
1998 March	10.9	6.6	0.36	0.15	0.22	0.55	0.92	0.99	1.59	4.09	12.0	34.7	86.6	201.9
1998 June	10.0	6.1	0.30	0.14	0.17	0.55	0.87	0.99	1.58	3.88	11.1	31.5	78.9	177.8
1998 Sept	9.3	5.6	0.29	0.13	0.16	0.51	0.78	0.92	1.51	3.82	10.5	29.6	73.4	162.1
1998 Dec	10.8	7.2	0.28	0.12	0.13	0.51	0.70	0.94	1.53	3.97	11.7	33.8	86.3	207.1
1999 March†	11.8	7.1	0.37	0.12	0.20	0.61	0.82	0.96	1.68	4.25	12.0	35.9	95.2	239.3
1999 June†	9.4	6.2	0.24	0.13	0.15	0.49	0.82	0.97	1.53	3.80	10.8	29.5	74.4	168.3
1999 Sept†	9.1	6.5	0.29	0.12	0.15	0.56	0.79	0.87	1.52	3.68	10.3	28.1	71.0	161.7
Females														
1971	11.0	15.1	0.63	0.29	0.24	0.39	0.42	0.60	1.59	4.32	10.0	26.1	73.6	185.7
1976	11.8	12.2	0.46	0.24	0.21	0.35	0.40	0.56	1.46	4.30	10.1	26.0	74.6	196.6
1981	11.3	9.4	0.46	0.19	0.19	0.32	0.35	0.52	1.26	3.80	9.5	24.1	66.2	178.2
1986	11.4	8.0	0.40	0.17	0.17	0.29	0.33	0.47	1.12	3.23	9.2	23.4	62.5	171.0
1991	11.3	6.4	0.33	0.16	0.15	0.28	0.33	0.45	1.06	2.91	8.1	22.0	58.6	163.8
1992	10.9	5.7	0.29	0.14	0.13	0.29	0.32	0.43	1.08	2.73	7.9	21.5	56.9	148.8
1993	11.4	5.6	0.28	0.12	0.16	0.27	0.31	0.45	1.06	2.73	7.9	22.0	59.4	156.5
1994	10.9	5.4	0.27	0.11	0.13	0.25	0.30	0.44	1.06	2.68	7.3	21.3	56.9	146.6
1995	11.2	5.3	0.25	0.12	0.13	0.26	0.29	0.46	1.05	2.72	7.3	21.4	57.1	153.1
1996	11.0	5.4	0.24	0.10	0.12	0.29	0.31	0.45	1.03	2.62	7.1	20.7	55.8	150.8
1997	10.9	5.3	0.23	0.10	0.13	0.28	0.32	0.42	1.03	2.63	6.9	20.2	54.6	151.8
1998	10.9	5.0	0.24	0.11	0.12	0.26	0.32	0.43	0.99	2.62	6.8	19.9	53.9	151.5
1998 March	11.8	5.3	0.25	0.13	0.14	0.29	0.37	0.44	1.01	2.61	7.0	21.6	58.3	165.3
1998 June	10.4	4.4	0.24	0.10	0.10	0.26	0.30	0.47	0.95	2.67	6.7	19.1	51.8	142.8
1998 Sept	9.7	4.7	0.20	0.08	0.10	0.28	0.29	0.42	1.00	2.48	6.3	18.0	47.9	132.1
1998 Dec	11.7	5.7	0.29	0.11	0.13	0.22	0.32	0.40	1.01	2.73	7.2	20.8	57.6	165.9
1999 March†	13.2	5.5	0.29	0.12	0.17	0.32	0.37	0.47	1.07	2.80	7.3	22.1	64.1	198.2
1999 June†	9.9	5.1	0.24	0.07	0.11	0.21	0.33	0.41	1.00	2.53	6.5	17.5	48.1	136.8
1999 Sept†	9.4	4.9	0.19	0.10	0.11	0.24	0.28	0.40	0.95	2.46	6.4	17.1	46.2	129.1

* Rates per 1,000 live births.

† Provisional registrations.

** 1998 deaths figures for England and Wales in *Health Statistics Quarterly* 3 and 4 were incorrectly shown as being final when they were still provisional. The final 1998 figures are those below.

Note: Figures represent the numbers of deaths registered in each year up to 1992 and the numbers of deaths occurring in each year from 1993.

Table 6.2

Deaths: subnational**
Rates

Health Regional Office areas of England*

Year and quarter	Northern and Yorkshire	Trent	Eastern	London	South East	South West	West Midlands	North West
Total deaths (deaths per 1,000 population of all ages)								
1991	11.8	11.2	10.3	10.0	10.8	11.9	10.8	12.0
1992	11.4	11.0	10.1	9.6	10.6	11.6	10.6	11.7
1993	11.8	11.4	10.4	9.9	10.9	12.0	11.0	12.1
1994	11.2	10.8	10.1	9.4	10.4	11.4	10.5	11.5
1995	11.3	11.0	10.4	9.6	10.7	11.9	10.9	11.6
1996	11.2	10.9	10.2	9.2	10.6	11.5	10.6	11.5
1997	11.0	10.8	10.1	8.9	10.4	11.5	10.5	11.4
1998	11.3	11.0	10.1	8.6	10.2	11.3	10.5	11.5
1998 Sept	10.0	9.6	9.2	7.9	9.2	10.2	9.4	10.3
1998 Dec	11.9	12.1	10.9	9.2	10.7	11.7	11.3	12.3
1999 March‡	12.9	12.9	12.2	9.9	12.2	13.5	12.6	13.6
1999 June‡	10.0	9.8	9.3	7.9	9.4	10.6	9.6	10.3
1999 Sept‡	9.5	9.5	8.9	7.4	9.1	10.2	9.1	10.0
Infant mortality (deaths under 1 year per 1,000 live births)								
1991	8.6	8.0	5.7	7.0	6.8	6.3	8.7	7.5
1992	6.9	6.8	4.9	7.1	5.6	5.7	8.2	7.0
1993	6.8	7.0	5.4	6.4	5.4	5.8	7.0	6.5
1994	6.8	7.2	5.3	6.3	4.9	5.3	7.2	6.2
1995	6.6	6.4	5.2	6.4	5.2	5.3	7.1	6.6
1996	6.3	6.3	5.3	6.3	5.4	5.5	6.8	6.4
1997	6.2	5.9	4.8	5.8	5.0	5.8	7.0	6.7
1998	6.1	6.0	5.0	6.0	4.5	4.8	6.5	6.3
1998 Sept	5.1	5.4	4.6	5.0	4.0	4.9	5.9	6.0
1998 Dec	6.3	6.9	5.9	7.5	5.5	5.1	6.8	7.1
1999 March‡	7.2	6.0	4.5	5.5	6.0	5.7	7.1	7.9
1999 June‡	6.2	6.2	4.9	6.2	4.3	4.1	7.9	5.7
1999 Sept‡	4.9	6.4	4.6	6.4	4.7	3.9	6.1	7.0
Neonatal mortality (deaths under 4 weeks per 1,000 live births)								
1991	4.9	4.8	3.4	4.1	4.1	3.6	5.9	4.0
1992	4.5	4.5	3.2	4.6	3.5	3.6	5.9	4.4
1993	4.2	4.7	3.7	4.5	3.7	3.7	4.8	4.0
1994	4.5	5.0	3.4	4.2	3.3	3.4	5.4	3.9
1995	4.5	4.5	3.4	4.3	3.5	3.7	5.3	4.2
1996	4.1	4.2	3.5	4.4	3.6	3.8	4.9	4.1
1997	4.1	3.9	3.3	3.6	3.4	3.9	5.0	4.3
1998	3.8	4.2	3.4	4.1	2.9	3.3	4.8	4.1
1998 Sept	3.1	3.8	3.4	3.8	2.8	3.4	4.2	4.3
1998 Dec	4.2	4.3	3.7	5.1	3.4	3.4	5.0	4.3
1999 March‡	4.8	4.3	2.8	3.6	3.5	3.7	4.9	4.8
1999 June‡	4.2	4.8	2.9	4.0	2.9	2.7	5.7	3.7
1999 Sept‡	3.4	5.1	3.6	4.8	3.6	2.6	4.5	4.7
Perinatal mortality (stillbirths and deaths under 1 week per 1,000 total births)†								
1991	8.7	8.6	7.1	8.1	7.3	6.7	9.9	7.8
1992	7.3	8.5	6.1	8.0	6.6	6.5	9.2	8.1
1993	9.3	8.9	8.1	9.5	8.4	7.9	9.9	8.9
1994	9.2	9.1	7.8	9.5	7.6	7.9	10.6	9.2
1995	9.5	9.3	7.7	9.7	7.5	7.4	10.1	8.6
1996	8.5	8.7	7.5	9.6	7.8	7.5	10.2	8.7
1997	8.2	7.9	7.3	8.9	7.3	8.7	9.6	8.8
1998	8.6	8.7	7.4	9.0	6.8	7.3	9.3	8.8
1998 Sept	7.0	8.8	6.4	8.4	6.9	7.6	8.0	7.0
1998 Dec	8.8	8.5	8.6	9.9	7.5	8.2	9.4	9.7
1999 March‡	9.6	9.0	7.0	9.0	7.9	8.5	10.6	8.6
1999 June‡	8.9	8.7	7.4	8.8	6.4	7.1	10.8	7.8
1999 Sept‡	7.6	8.7	6.9	8.5	6.7	7.8	9.9	9.2

* The Regional Office boundaries were revised from 1 April 1999. See *Health Statistics Quarterly 03 In Brief* for details of the changes. Earlier years' figures have been revised to reflect the new boundaries.

† In October 1992 the legal definition of a stillbirth was changed, from a baby born dead after 28 completed weeks of gestation or more, to one born dead after 24 completed weeks of gestation or more.

‡ Provisional registrations.

** 1998 deaths figures for England and Wales *Health Statistics Quarterly 3* and *4* were incorrectly shown as being final when they were still provisional. The final 1998 figures are those below.

Note: Figures represent the numbers of deaths registered in each year up to 1992 and the number of deaths occurring in each year from 1993.

Table 6.3 Deaths: selected causes (International Classification)* and sex*** England and Wales
 Number (thousands) and rate for all deaths and age-standardised rates† per million population for selected causes

Year and quarter	All deaths		All causes	Malignant neoplasms									
				Oesophagus	Stomach	Colon, rectum, rectosigmoid junction and anus	Trachea, bronchus and lung	Melanoma of skin	Other neoplasm of skin	Breast	Cervix uteri	Ovary and other uterine	Prostate
	Number (thousands)	Rate**		(150)	(151)	(153,154)	(162)	(172)	(173)	(174)	(180)	(183)	(185)
Males													
1971	288.4	1,207	13,464	76	317	331	1,066	10	12	:	:	:	198
1976	300.1	1,246	13,613	84	292	339	1,091	14	12	:	:	:	211
1981	289.0	1,196	12,200	90	251	316	1,028	17	9	:	:	:	214
1986	287.9	1,177	11,349	101	224	313	949	18	9	:	:	:	263
1991	277.6	1,121	10,234	117	185	310	841	23	10	:	:	:	302
1992	271.7	1,083	9,870	120	179	316	810	22	10	:	:	:	303
1993	279.6	1,109	10,010	123	162	294	766	25	8	:	:	:	296
1994	267.6	1,057	9,502	128	162	283	743	24	9	:	:	:	295
1995	274.4	1,079	9,582	126	148	281	712	26	9	:	:	:	296
1996	268.7	1,051	9,271	126	145	272	681	25	8	:	:	:	287
1997	264.9	1,031	9,019	125	136	267	649	25	7	:	:	:	277
1998	264.7	1,025	8,895	128	131	262	641	26	8	:	:	:	274
1998 Mar	69.6	1,093	9,480	127	131	271	657	25	8	:	:	:	273
1998 Jun	64.1	996	8,646	127	127	256	621	26	8	:	:	:	272
1998 Sept	60.6	931	8,089	131	133	259	634	26	6	:	:	:	271
1998 Dec	70.4	1,082	9,375	129	134	262	654	26	9	:	:	:	280
1999 Mar‡	75.1	1,182	10,385	127	138	258	626	24	7	:	:	:	278
1999 Jun‡	60.8	944	8,211	126	127	248	607	26	6	:	:	:	264
1999 Sept‡	58.9	905	7,883	126	119	245	609	29	8	:	:	:	265
Females													
1971	278.9	1,104	8,186	40	149	255	183	14	6	379	83	127	:
1976	298.5	1,176	8,303	43	136	262	219	16	6	393	78	125	:
1981	288.9	1,134	7,433	42	111	231	252	16	5	405	69	122	:
1986	293.3	1,141	6,947	47	89	220	285	19	4	420	69	121	:
1991	292.5	1,127	6,399	49	74	207	300	18	4	401	54	118	:
1992	286.6	1,095	6,197	49	73	206	297	17	5	395	52	118	:
1993	299.2	1,140	6,347	51	66	190	294	22	3	376	47	116	:
1994	285.6	1,085	6,039	50	66	187	298	22	4	370	42	114	:
1995	295.2	1,119	6,128	52	61	179	294	20	4	359	42	116	:
1996	291.5	1,102	5,995	51	55	174	292	20	3	343	41	122	:
1997	290.4	1,095	5,925	51	57	169	285	20	3	336	37	115	:
1998	290.3	1,091	5,874	49	54	163	291	21	3	327	35	117	:
1998 Mar	77.3	1,178	6,290	45	51	157	293	21	4	329	37	118	:
1998 Jun	69.3	1,044	5,651	48	57	161	276	18	3	312	34	113	:
1998 Sept	65.3	973	5,303	50	57	167	285	22	3	325	35	118	:
1998 Dec	78.5	1,170	6,261	52	50	168	311	23	3	340	35	117	:
1999 Mar‡	86.5	1,320	6,947	53	51	164	288	20	3	329	33	116	:
1999 Jun‡	65.4	985	5,352	55	48	157	286	20	3	315	33	109	:
1999 Sept‡	63.4	945	5,171	50	50	164	281	21	2	313	33	114	:

* The Ninth Revision of the International Classification of Diseases, 1975, came into operation in England and Wales on 1 January 1979. ONS has produced a publication containing details of the effect of this Revision (*Mortality statistics: comparison of the 8th and 9th revision of the International Classification of Diseases, 1978 (sample)*, (Series DH1 no.10).

‡ Provisional registrations.

† Directly age-standardised to the European Standard population. See Notes to Tables.

** Per 100,000 population.

*** 1998 deaths figures for England and Wales in *Health Statistics Quarterly* 3 and 4 were incorrectly shown as being final when they were still provisional. The final 1998 figures are those below.

- Notes
- Between 1 January 1984 and 31 December 1992, ONS applied the International Classification of Diseases Selection Rule 3 in the coding of deaths where terminal events and other 'modes of dying' such as cardiac arrest, cardiac failure, certain thromboembolic disorders, and unspecified pneumonia and bronchopneumonia, were stated by the certifier to be the underlying cause of death and other major pathology appeared on the certificate. In these cases Rule 3 allows the terminal event to be considered a direct sequel to the major pathology and that primary condition was selected as the underlying cause of death. Prior to 1984 and from 1993 onwards, such certificates are coded to the terminal event. ONS also introduced automated coding of cause of death in 1993, which may also affect comparisons of deaths by cause from 1993. Further details may be found in the annual volumes *Mortality statistics: Cause 1984*, Series DH2 no.11, and *Mortality statistics: Cause 1993 (revised) and 1994*, Series DH2 no.21.
 - On 1 January 1986 a new certificate for deaths within the first 28 days of life was introduced. It is not possible to assign one underlying cause of death from this certificate. The 'cause' figures for 1986 onwards therefore exclude deaths at ages under 28 days.
 - Figures represent the numbers of deaths registered in each year up to 1992, and the number of deaths occurring in each year from 1993. Provisional figures are registrations.

Table 6.3
continued**Deaths: selected causes (International Classification)* and sex******England and Wales*

Number (thousands) and rate for all deaths and age-standardised rates† per million population for selected causes

Malignant neoplasms														
Bladder	Leukaemia	Diabetes mellitus	Ischaemic heart disease	Cerebro-vascular disease	Pneumonia	Bronchitis, emphysema and allied conditions	Asthma	Gastric, duodenal and peptic ulcers	Chronic liver disease and cirrhosis	Chronic renal failure	Motor vehicle traffic accidents	Suicides and undetermined deaths	Year and quarter	
(188)	(204-208)	(250)	(410-414)	(430-438)	(480-486)	(490-492, 496)	(493)	(531-533)	(571)	(585)	(E810-E819)	(E950-E959, E980-E989 exc. E9888)		
													Males	
124	74	82	3,801	1,541	920	944	21	107	35	48	198	124	1971	
128	76	91	3,930	1,357	1,237	852	17	108	45	61	170	135	1976	
121	74	82	3,664	1,141	1,054	683	28	90	49	44	113	151	1981	
120	75	134	3,463	1,071	460	725	33	85	56	38	130	154	1986	
121	76	130	2,981	939	390	605	31	73	70	24	117	158	1991	
123	72	127	2,854	886	361	573	27	69	70	14	109	157	1992	
114	69	100	2,829	794	759	566	24	67	67	21	90	149	1993	
109	68	97	2,595	755	679	494	23	67	67	20	86	148	1994	
111	70	100	2,535	754	753	524	20	63	75	21	83	146	1995	
104	65	96	2,410	743	725	480	19	63	88	19	87	137	1996	
100	66	94	2,261	714	741	475	19	61	95	17	86	140	1997	
98	66	93	2,200	699	709	460	18	59	105	17	79	147	1998	
94	64	97	2,381	747	828	553	17	63	106	17	77	160	1998 Mar	
100	64	86	2,149	681	673	421	18	55	106	18	84	155	1998 Jun	
97	66	85	1,945	624	537	354	17	55	106	16	76	145	1998 Sept	
100	70	104	2,328	745	797	513	19	64	102	19	77	129	1998 Dec	
96	68	107	2,454	803	1,146	697	20	81	109	23	86	145	1999 Mar‡	
90	66	88	1,990	640	578	372	14	57	104	17	84	146	1999 Jun‡	
96	66	83	1,828	579	537	342	19	55	110	15	70	154	1999 Sept‡	
													Females	
32	47	89	1,668	1,352	623	193	25	44	26	30	80	84	1971	
35	48	81	1,774	1,212	824	183	22	49	29	35	65	83	1976	
35	46	66	1,601	1,012	741	155	30	57	36	28	39	81	1981	
36	46	100	1,554	930	349	194	35	52	38	21	49	67	1986	
34	43	95	1,404	809	324	211	30	46	45	13	44	51	1991	
35	42	94	1,347	773	284	216	29	46	43	8	40	51	1992	
34	43	73	1,330	711	569	223	27	45	43	12	34	48	1993	
34	42	69	1,222	677	499	202	24	43	46	12	33	44	1994	
32	41	72	1,179	677	553	227	24	42	49	11	29	46	1995	
31	40	67	1,126	667	534	220	21	43	52	10	29	44	1996	
31	43	65	1,060	639	559	225	23	41	55	9	28	45	1997	
31	40	64	1,042	634	533	225	22	40	58	11	27	43	1998	
32	41	68	1,137	684	642	288	24	44	57	12	29	49	1998 Mar	
32	34	61	1,019	616	489	197	20	41	55	11	26	46	1998 Jun	
32	40	60	923	572	376	156	19	34	55	9	28	42	1998 Sept	
29	45	69	1,092	664	625	262	25	42	65	11	24	35	1998 Dec	
30	46	74	1,140	723	916	354	26	45	64	12	28	42	1999 Mar‡	
30	40	61	913	583	425	171	17	37	59	7	28	43	1999 Jun‡	
31	44	57	839	542	371	163	20	36	61	9	26	47	1999 Sept‡	

Annual Update:

1998 Mortality Statistics: Cause (England and Wales)

INTRODUCTION

This article presents statistics on deaths occurring in England and Wales in 1998, analysed by sex, age, and cause. It is based on the annual reference volume in the DH2 series, for deaths by cause¹, published on 21 December 1999. Deaths are classified according to the Ninth Revision of the International Classification of Diseases (ICD9).

In 1998, 555,015 deaths occurred in England and Wales, just 266 fewer than in 1997 (Table 1). Although the crude death rate in 1998 was unchanged for both sexes, levels of mortality as measured by age-standardised death rates continued to fall, for both males and females. The main causes of death in 1998 were: malignant neoplasms (25 per cent), heart disease (22 per cent), respiratory disease (16 per cent) and cerebrovascular disease (10 per cent). This distribution differs little from that of recent years.

Figures 1 and 2 show relative change in age-specific all cause death rates for males and females, respectively, from 1988 to 1998. Death rates declined in this period in all age groups and for both sexes, although the decline for males aged 15–44 has been small (1.1 per cent). In all but the 15–44 age group the declining trend since 1988 has been greater for

males than for females, and the decline has been greatest for both sexes for those aged 1–14 and 45–64.

NEUROLOGICAL DISEASES

Trends in deaths from dementing illnesses in England and Wales have been examined recently by ONS². Figures for 1998 allow a new look at a range of conditions of the nervous system. These are often chronic conditions, requiring long term treatment and support, and form a significant part of health care. However, they show contrasting patterns of age-specific mortality, as for example mortality rates for epilepsy (ICD9 345), and muscular dystrophy (359) do not vary greatly by age, while mortality from Parkinson's disease is heavily concentrated at the oldest ages. Mortality from Alzheimer's disease (331.0) is excluded from this analysis, because apparent mortality rates are very strongly influenced by changes in death certification practice which affect whether a death is coded to senile or presenile dementia or to Alzheimer's disease.

The analysis here is in terms of two recent three-year periods, 1993–95 and 1996–98, which cover the period from 1993 when major changes were introduced to ONS' systems for assigning underlying cause. Using these periods also helps to remove some of the effects of small numbers in comparing age-specific rates.

Table 1

Deaths and death rates in England and Wales, 1971–1998

Year	Total deaths	Crude death rate*	Age standardised rate**	Males			Females		
				Deaths	Crude death rate*	Age standardised rate**	Deaths	Crude death rate*	Age standardised rate**
1971	567,262	11.6	10,326	288,359	12.2	13,464	278,903	11.1	8,186
1981	577,890	11.6	9,374	289,022	12.0	12,200	288,868	11.3	7,433
1991	570,044	11.2	7,987	277,582	11.1	10,234	292,462	11.2	6,399
1992	558,313	10.9	7,724	271,732	10.8	9,870	286,581	10.9	6,197
1993	578,799	11.3	7,878	279,561	11.1	10,010	299,238	11.4	6,347
1994	553,194	10.7	7,486	267,555	10.6	9,502	285,639	10.9	6,039
1995	569,683	11.0	7,574	274,449	10.8	9,582	295,234	11.2	6,128
1996	560,135	10.8	7,376	268,682	10.5	9,271	291,453	11.0	5,995
1997	555,281	10.6	7,239	264,865	10.3	9,019	290,416	10.9	5,926
1998	555,015	10.6	7,166	264,707	10.3	8,894	290,308	10.9	5,874

* deaths per thousand population.

** deaths per million, based on the European standard population.

Figure 1 Male age-specific death rates as a percentage of rates in 1988, England and Wales, 1988-98

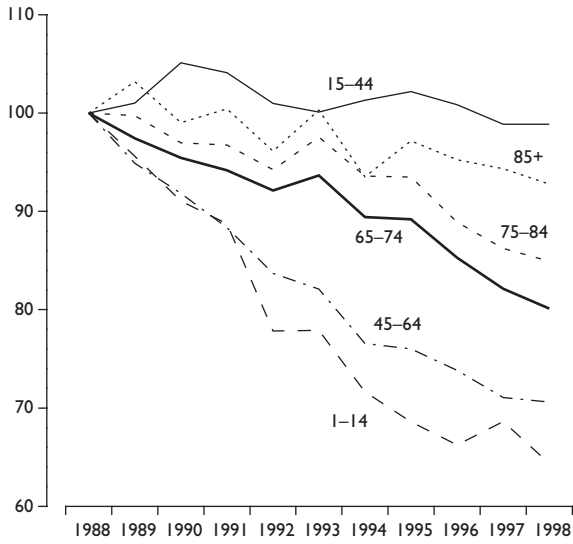


Figure 2 Female age-specific death rates as a percentage of rates in 1988, England and Wales, 1988-98

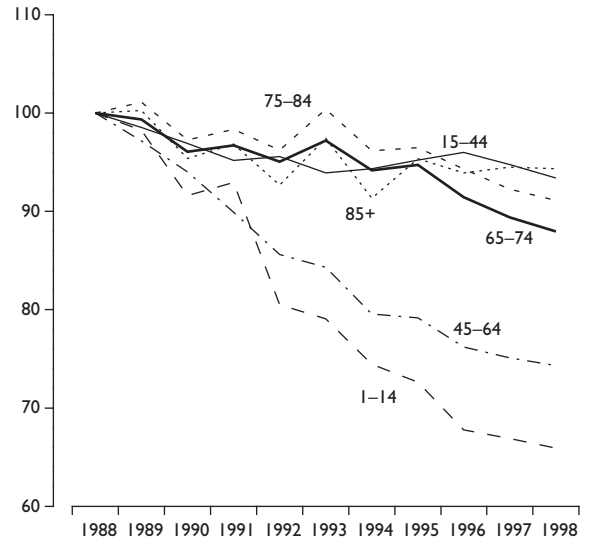


Figure 3 Male age-specific mortality rates for epilepsy, motor neurone disease, and Parkinson's disease, 1993-95 and 1996-98

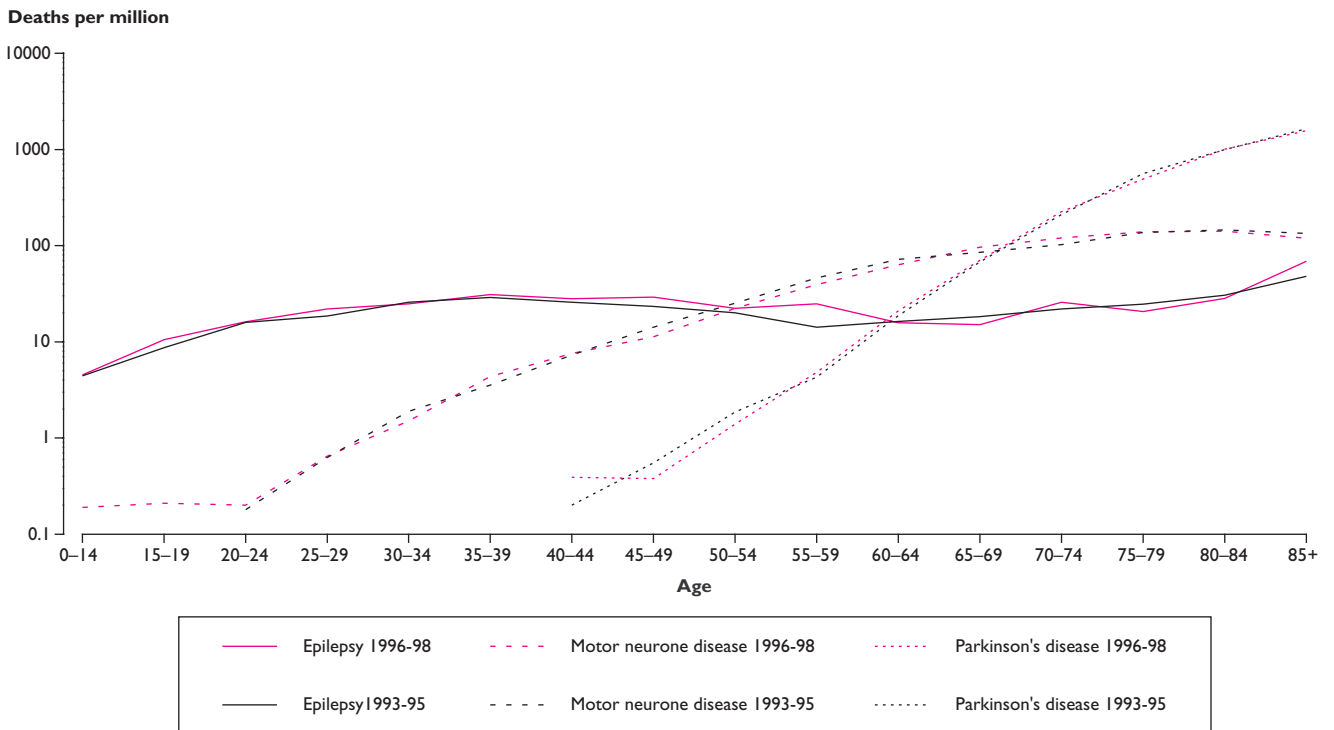
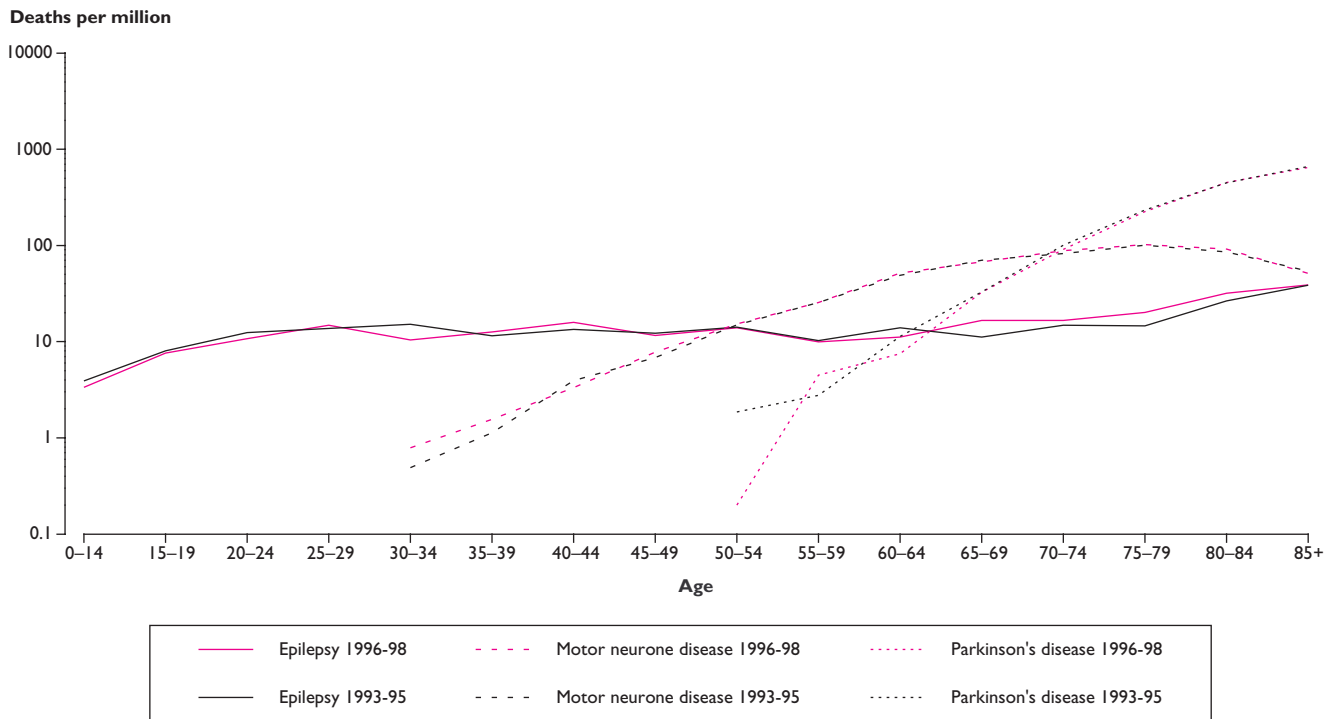


Figure 4

Female age-specific mortality rates for epilepsy, motor neurone disease, and Parkinson's disease, 1993–95 and 1996–98



There are few deaths from Parkinson's disease (ICD9 332) below age 50, but thereafter rates climb rapidly with age (Figures 3 and 4, both using a logarithmic scale for rates). There were only minor differences in age-specific rates between the two time periods. Recent analyses³ have shown a steady decline in mortality under age 75 for most of this century, but these more recent data do not show this trend continuing into the 1990's. For epilepsy (345), mortality rates vary little between ages 25–79 for both males and females, and then rise rapidly at the oldest ages, where it is considered more likely to be symptomatic of underlying neurological disease³. However, there was a marked increase from 1993–95 to 1996–98 at ages 85 and over.

By contrast, the level of mortality for motor neurone disease (ICD9 335.2) is very low below age 30, but then rises steadily to about age 80 and then declines. The pattern and levels of mortality are little changed between the two periods, contrasting with a long term increase over most of this century³.

ANALYSIS OF ALL CONDITIONS MENTIONED ON THE DEATH CERTIFICATE

The 1997 volume in the DH2 series⁴ re-introduced information on the number of causes mentioned at death certification. The underlying cause will usually be selected from one of the mentioned causes

although occasionally it may be inferred from two or more mentioned causes. In the 1998 DH2 volume further analysis has been added (in Table 10), which presents the number of conditions mentioned on death certificates, classified by the underlying cause for each certificate. The table also shows the distribution of mentioned conditions for each underlying cause.

There is little variation overall in the ratio of mentions to underlying causes when analysed by sex. Overall, there are 2.32 conditions mentioned per male death, and 2.21 per female.

REFERENCES

- Office for National Statistics. *Mortality statistics: cause 1998*, series DH2 no 25. TSO (London: 1999).
- Kirby L *et al.* Dementia in people aged 65 and older: a growing problem? *Population Trends* 92, 23–28 (1998).
- Office for National Statistics. *Health of Adult Britain* vol 2, chapter 19. TSO (London: 1997).
- Office for National Statistics. *Mortality statistics: cause 1997*, series DH2 no 24. TSO (London: 1998).

Report:

ONS drug-related deaths database: first results for England and Wales, 1993–97

INTRODUCTION

Drugs are an important cause of premature mortality, accounting for nearly one fifth of all deaths among men in their twenties. As such they generate considerable political, media and public interest. However, it is difficult to identify how many deaths are associated with particular drugs. The Office for National Statistics (ONS) has therefore created a database of drug-related deaths to improve knowledge in this area.

Until 1997 the Home Office published figures on deaths associated with specific drugs in the *Notified Addicts Bulletin*.¹ The latest figures published were for 1995 and were based on the number of cases where particular substances were mentioned on the death certificate. Separately OPCS (now part of ONS) had published, until 1992, a table of deaths due to poisonings which listed the number of deaths from specific drugs, or combination of drugs, mentioned on the coroner's certificate.² Since 1993 they have produced figures for selected substances only on an adhoc basis, primarily in response to parliamentary questions. The new database will enable ONS to produce figures on the numbers of occasions any substance is recorded on drug-related deaths, as well as to carry out more detailed analysis of these deaths than was previously feasible.

THE DATABASE

The database currently comprises all deaths in England and Wales between 1993 and 1997 where the underlying cause of death is regarded as being drug-related, according to the current ONS definition.³ These are deaths coded according to the International Classification of Diseases, Ninth Revision, (ICD9), as follows :

ICD9 Underlying cause code	Description
292	drug psychoses
304	drug dependence
305.2–305.9	non-dependent abuse of drugs
E850–E858	accidental poisoning by analgesics, antipyretics, anti-rheumatics
E950.0–E950.5	suicide and self-inflicted poisoning by solid or liquid substances

E980.0–E980.5	poisoning by solid or liquid substances undetermined whether accidentally or purposely inflicted
E962.0	assault by poisoning – drugs and medicaments

These codes cover a broad range of deaths, including both accidents and suicides involving drugs. It also covers a range of legal and illegal substances. For example, over two thirds of the female deaths on the database had a verdict of suicide or an open verdict, many of which involved paracetamol.

It is not always possible to identify specific substances using ICD9 codes as many cover a broad groups of drugs. For example, E950.0 covers suicidal poisoning by analgesics, antipyretics and antirheumatics and includes deaths from opiates such as heroin and methadone, as well as “over the counter” painkillers such as paracetamol. A substance can also be coded to one of several ICD9 codes depending on the circumstances of death, and the combination of drugs involved. Temazepam, for example, could be classified under up to 12 ICD9 codes.³

For each death the new ONS database includes :

- The underlying cause of death.
- Every mention of a substance recorded on the death certificate or mentioned by the coroner.
- An indicator to show if alcohol is mentioned.
- Other information recorded at death registration such as age, sex, marital status, occupation and place of usual residence.

The database allows deaths to be sorted, counted and analysed according to substances mentioned, and allows investigation of different combinations of drugs recorded.

Following a post-mortem and inquest (over 99 per cent of drug-related deaths between 1993 and 1996 had both) the coroner completes the certificate of death. Previous figures, produced by both the Home Office and ONS, for deaths involving specific substances were based on information recorded in the cause of death section of this certificate.

Additional details on the circumstances of the death may be recorded in Part V of the coroner's certificate for some deaths. It is obligatory for the coroner to complete Part V for deaths by accident or misadventure. It may also be completed for non-accidental deaths but this is not compulsory. For completeness, substances mentioned in this section are included on the new drugs database for 1994 onwards. For 1993, this information is currently only available on the database for fewer than half of all deaths. Figures for that year are therefore provisional.

The main effects of including information from Part V of the coroner's certificate of death are to increase the proportion of deaths where alcohol was also mentioned and to give additional information on other substances. For example where morphine or paracetamol toxicity is given in the cause of death section, the additional coroner's text section may refer to heroin injection or co-proxamol overdose, respectively, thus confirming the origin of the substance detected at post mortem. The inclusion of information from the coroner's text explains why the figures presented here differ slightly from figures previously released.

RESULTS

Numbers of drug-related deaths

Table 1 gives the total number of deaths contained on the database for each year, and shows the underlying cause to which they are assigned. This reveals some major differences between male and female deaths, particularly the much larger proportion of female deaths that receive a suicide or open verdict (ONS routinely includes the latter "undetermined" deaths in suicide statistics, on the basis that the majority are suicides but the coroner did not have enough information available to give that verdict.) Male deaths are also almost three times more likely to have as an underlying cause drug dependence or non-dependent abuse of drugs.

Table 1 Number of drug-related deaths, England and Wales, 1993-97

		1993	1994	1995	1996	1997	1993-1997	% of Total
Total	Males	1,365	1,529	1,643	1,811	1,932	8,280	
	Females	887	875	920	910	926	4,518	
Drug dependence/abuse 304, 305.2-9	Males	245	301	375	432	491	1,844	22
	Females	45	48	70	96	84	343	8
Accident E850-E858	Males	425	507	537	612	612	2,693	33
	Females	209	215	187	225	209	1,045	23
Suicide & Undetermined E950.0-5, E980.0-5	Males	690	718	725	757	826	3,716	45
	Females	631	608	661	582	629	3,111	69
Drug psychoses/assault 292, E962.0	Males	5	3	6	10	3	27	0
	Females	2	4	2	7	4	19	0

Numbers of deaths from specific substances

Table 2 gives numbers of deaths where specific substances were mentioned on the death certificate. Often only a general description, such as 'drug overdose', is recorded on the coroner's certificate of death. This is the case in around 10 per cent of deaths attributed to drugs. Moreover, where a number of drugs are mentioned on the death certificate, it is not always possible to tell which of them was primarily responsible for the death. The figures thus give an approximation of the numbers of deaths associated with each substance. Some deaths may also be counted more than once in Table 2. For example, if heroin and cannabis are recorded on the death certificate, the death will be recorded once under heroin and once under cannabis.

As heroin breaks down in the body into morphine, the latter may be detected at post mortem and recorded on the death certificate. Therefore figures for deaths where heroin and/or morphine were mentioned on the

Table 2 Number of deaths where selected substances were mentioned on the death certificate, including with other drugs and with alcohol, England and Wales, 1993-97

	1993*			1994			1995			1996			1997		
Heroin	67	(14) ¹	(13) ²	127	(31)	(26)	162	(33)	(33)	241	(51)	(62)	255	(47)	(56)
Morphine	129	(48)	(28)	176	(51)	(40)	231	(68)	(61)	281	(74)	(72)	255	(78)	(68)
Heroin and/or Morphine	187	(61)	(39)	276	(78)	(61)	355	(93)	(83)	464	(113)	(120)	445	(112)	(109)
Methadone	230	(92)	(49)	269	(110)	(57)	310	(130)	(58)	368	(141)	(87)	421	(152)	(102)
Cocaine	12	(4)	(0)	24	(12)	(4)	19	(10)	(2)	18	(8)	(5)	38	(21)	(5)
MDMA/Ecstasy	8	(3)	(2)	27	(12)	(3)	10	(3)	(1)	16	(8)	(4)	11	(8)	(1)
MDEA	2	(0)	(0)	0	(0)	(0)	1	(0)	(0)	3	(2)	(0)	1	(1)	(0)
MDA	3	(0)	(0)	1	(1)	(0)	0	(0)	(0)	0	(0)	(0)	1	(1)	(1)
Other/unspecified amphetamine	24	(16)	(4)	23	(17)	(3)	38	(21)	(5)	33	(20)	(8)	40	(23)	(2)
LSD	0	(0)	(0)	1	(1)	(0)	1	(1)	(0)	0	(0)	(0)	1	(1)	(1)
Cannabis	14	(12)	(6)	18	(16)	(3)	17	(16)	(5)	11	(11)	(7)	13	(12)	(2)
Temazepam	173	(115)	(66)	163	(95)	(50)	138	(102)	(43)	98	(67)	(28)	104	(78)	(39)
Diazepam	55	(45)	(29)	72	(64)	(32)	76	(68)	(26)	97	(91)	(44)	122	(111)	(56)
Nitrazepam	23	(14)	(9)	18	(12)	(4)	17	(10)	(2)	11	(8)	(3)	14	(7)	(2)
Barbiturates	44	(11)	(10)	46	(10)	(4)	46	(8)	(0)	30	(10)	(7)	20	(6)	(1)
Paracetamol inc. compounds**	463	(147)	(96)	468	(146)	(100)	526	(161)	(106)	480	(145)	(106)	562	(152)	(129)
Paracetamol	322	(128)	(56)	284	(106)	(49)	323	(126)	(44)	284	(112)	(55)	345	(118)	(71)
Co-proxamol	135	(19)	(36)	187	(40)	(49)	189	(30)	(54)	188	(30)	(44)	214	(30)	(57)

¹ Where another drug(s) were mentioned on the death certificate.

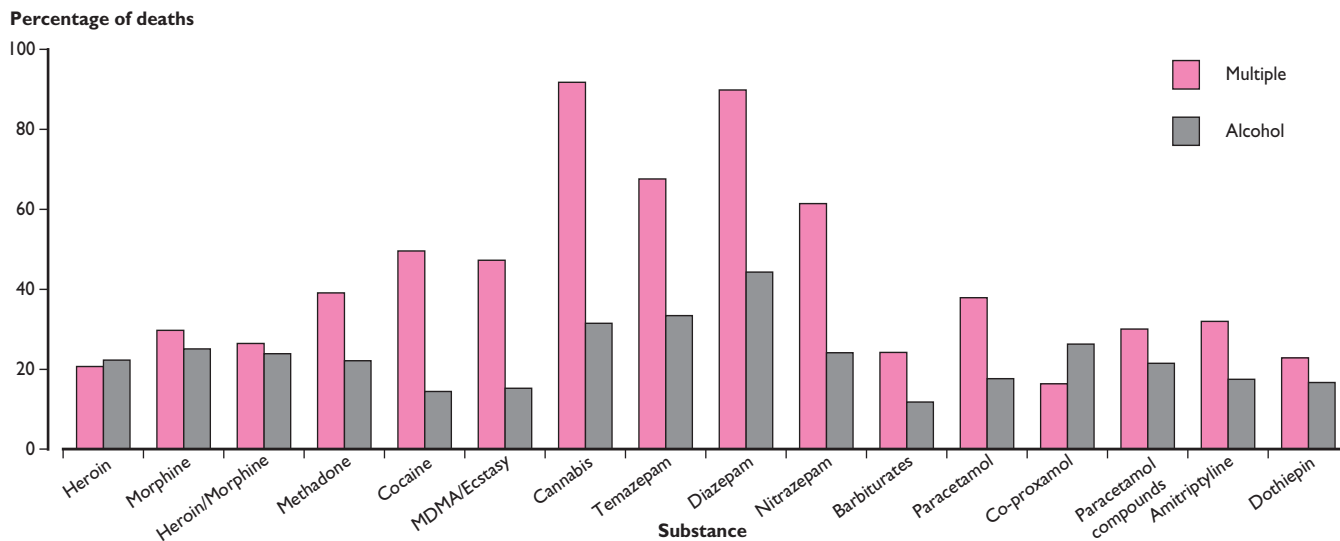
² Where alcohol use was also mentioned on the death certificate.

* Data for 1993 are provisional as not all the text from Part V of the coroner's certificate is currently stored electronically for 1993.

** includes deaths where paracetamol or any compounds containing paracetamol are mentioned on the death certificate.

NB Some deaths may be counted more than once in the table above, therefore it is not possible to add rows.

Figure 1 Deaths associated with selected substances involving other drugs or alcohol, 1993–97



death certificate are included in Table 2. Heroin and morphine are sometimes both mentioned on the death certificate and therefore the combined heroin and/or morphine figures are always less than adding the separate heroin and morphine figures together.

OTHER KEY FINDINGS

Range of substances mentioned

The database contains mentions of approximately 350 substances or types of substance. Seven drugs account for over half of all mentions; Methodone, Paracetamol, Dothiepin, Morphine, Amitriptyline, Co-proxamol and Temazepam.

Illicit drugs

Deaths associated with certain high-profile illicit drugs such as cocaine and ecstasy are much less common, with an average of 22 and 14 per year respectively. LSD and amyl nitrite have each been recorded only three times between 1993 and 1997. Over the five-year period, there were nearly twice as many deaths mentioning methadone as heroin. However the majority of morphine deaths are likely to be due to heroin (see above.) When the number of deaths from heroin and morphine are combined, this figure exceeds the number mentioning methadone. This was not identified under the previous system and has important implications for assessing the relative risks associated with the two substances.

Mentions of more than one substance

Around one fifth of cases have more than one substance mentioned on the death certificate and a similar proportion include a mention of alcohol. For example, in around 90 per cent of deaths associated with cannabis and diazepam additional substances were also recorded on the death certificate. This compares with only a fifth of deaths mentioning heroin and a quarter associated with heroin and/or morphine. Similarly, alcohol use, including reference to a history of alcohol abuse, was mentioned in 44 per cent of deaths associated with diazepam but only around 14 per cent of deaths associated with cocaine and amphetamines (including Ecstasy) (Figure 1).

Age distribution

There is considerable variation in the mean age at death for different substances and between men and women, with females having a higher mean age at death than males for most substances. The mean age at death is particularly high for benzodiazepines and barbiturates, suggesting that a significant proportion of these deaths are suicides or accidental overdoses of prescribed medication among the elderly. The mean age for drugs primarily associated with abuse such as Ecstasy, cocaine and cannabis is much younger. (Figure 2)

Figure 2 Mean age at death for selected substances, 1993–97

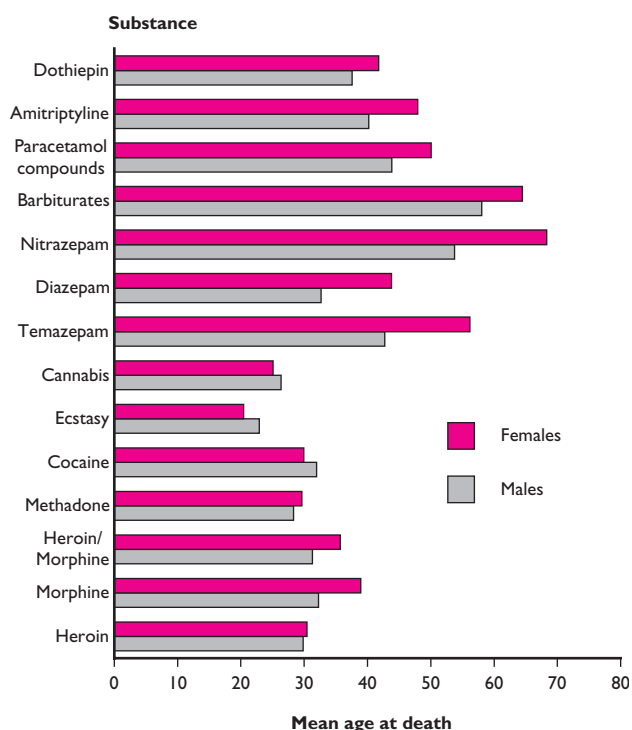
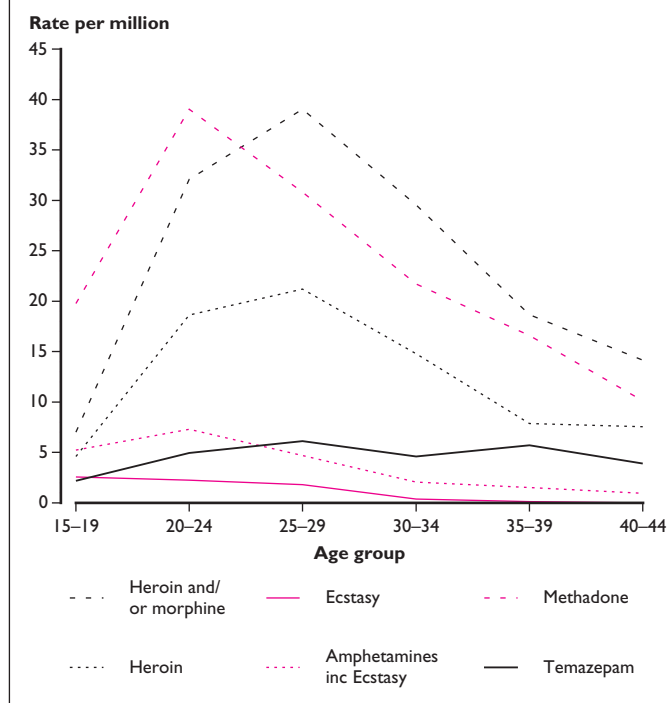


Figure 3 Mortality rates from selected substances, males, 15–44 years, 1993–97



Drug deaths among young men

Previous research³ has substantiated widespread concern about high levels of drug-related mortality among young men. Figure 3 therefore examines deaths from key substances of abuse among men aged 15–44. This reveals that, for most of the selected substances, age specific rates are highest for men in their twenties. This is particularly striking for heroin (and/or morphine) and methadone. For temazepam the decline with age among men aged 30–44 is less apparent. Mortality from Ecstasy is highest among 15–19 year olds, declining with age to very low rates among those aged 30 and above.

FUTURE DEVELOPMENTS

Following the development of the new database, deaths from specific drugs in England and Wales can be quantified much more effectively and analysed in more detail than was feasible under the previous system. There is considerable potential for the database to be used to carry out further analysis such as investigating geographical variations in substances implicated in drug-related deaths.

Further information on drug-related deaths will be published in *Health Statistics Quarterly* later in the year. This will include figures for England and Wales, 1998, from the drug-related deaths database, and available data for Scotland and Northern Ireland.

Further details about the database and its uses for research and other purposes are available from :
 Allan Baker, Office for National Statistics, B6/12, 1 Drummond Gate, London SW1V 2QQ
 Tel - 020 7533 5242, email allan.baker@ons.gov.uk.

REFERENCES

- 1 Home Office Statistical Bulletin *Statistics of drug addicts notified to the Home Office, United Kingdom*
- 2 Office for National Statistics DH4 Series *Mortality Statistics: Injury and Poisoning*
- 3 Christophersen O, Rooney C, and Kelly, S. Drug related deaths: methods and trends *Population Trends* 93

Other population and health articles, publications and data



Population Trends 99 Publication 21 March 2000

- Planned articles:**
- Families, groups and clusters of local and health authorities, revised for 1999
 - Reviewing the mid-year population estimates in Northern Ireland
 - Mid-1998 Population Projections
 - Population of households in England to 2021
 - Looking back to look forward: lessons from four birth cohorts for ageing in the 21st Century
- Reports:**
- Conceptions 1998
 - Marriages 1998



Health Statistics Quarterly 06 Publication 6 June 2000

- Planned articles:**
- Improving the completeness of Down Syndrome Notification
 - Death rates, dementias and neurodegenerative disorders in England and Wales and the USA, 1993–97
 - Are we looking forward to a longer and healthier retirement?
 - An examination of persisting disadvantage and mortality in the regions using the Longitudinal Study
- Reports:**
- Death Registrations 1999: cause, England and Wales
 - Legal Abortions in England and Wales 1999

Forthcoming Annual Reference Volumes

Title	Publication
Mortality statistics: childhood, infant and perinatal 1993, DH3 No. 31	Spring 2000
Cancer Statistics: Registrations 1994 MBI No.27	Spring 2000
Key Population and Vital Statistics 1998 VS No. 25, PP	Spring 2000

Vital Statistics data – annual data for each Health and Local Authority in England and Wales

VS1 Births and deaths summary data:

Population, births and deaths, fertility and mortality rates, comparisons with the region, and with England and Wales.

VS2 Births:

Births by age of mother, number of previous children, place of confinement and birthweight.

VS3 Deaths by cause:

Deaths by cause, sex and age.

VS4 Vital Statistics for wards:

Live births, stillbirths and deaths (by age).

VS4D Deaths for wards:

Deaths for wards in local authorities by 12 selected causes.

VS5 Infant mortality:

Live births, stillbirths and infant deaths. Numbers and rates. Live births and stillbirths by birthweight. Stillbirths by gestation period.

How to order:

Most Vital Statistics data are available on paper, disk and CD-ROM for each year 1993–98. Prices range from £30 to £40. To order contact:

Vital Statistics Outputs Branch
Room 1300
Office for National Statistics
Segensworth Road
Titchfield
Hampshire PO15 5RR
Tel: 01329 813758