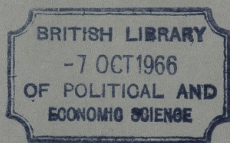


GENERAL REGISTER OFFICE

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THE
REGISTRAR GENERAL'S
STATISTICAL REVIEW
OF
ENGLAND AND WALES
FOR THE YEAR
1963

PART III
COMMENTARY



LONDON

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PART III
COMMENTARY

LONDON
HER MAJESTY'S STATIONERY OFFICE

1966

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EXPLANATORY NOTES

1. New change in presentation

A computer has been used for the first time in the production of many of the statistics in this volume. The size of the pages has been altered from royal octavo to demy quarto to maintain uniformity of page size with Parts I and II of the *Statistical Review*. Some tables have been re-arranged to make better use of the available space but alteration in layout and presentation have been kept to a minimum.

2. Populations

The estimates of population appearing in this volume and described as "home", "total" or "civilian" have the following content:

Home population - the population, of all types, actually in England and Wales, distributed by area according to residence.

Total population - the home population plus members of H.M. Forces belonging to England and Wales and serving overseas but minus the Forces of other countries temporarily in England and Wales.

Civilian population - the total population minus members of H.M. Forces belonging to England and Wales at home or overseas.

3. Stillbirths

Classification of stillbirths by cause is according to the Supplementary List, set out on pages 336-348 of the *International Statistical Classification of Diseases, Injuries and Causes of Death, 1955** (Seventh Revision), with further sub-division of certain rubrics, and as modified by the following changes of assignment:

Rubrics to which cause is assigned		
Cause of stillbirth	(i) in International Classification	(ii) in Statistical Review
Patent ductus arteriosus	39.5	38.41
Patent foramen ovale		38.43
Congenital heart condition NOS		38.45
Foetal heart condition NOS		38.45

* Manual obtainable from Her Majesty's Stationery Office, price 35s. Od. net.

4. Numbering of tables

Of the tables referred to in this review, those numbered in Arabic numerals (without prefix) will be found in "Part I, Tables, Medical" and those lettered will be found in "Part II, Tables, Population" for the year in question, while those numbered in Arabic numerals with the prefix C appear in this volume.

5. Standardised mortality comparison

The Comparative Mortality Index introduced in 1942 has since 1958 been replaced by a Standardised Mortality Ratio which shows the number of deaths registered in the year of experience as a percentage of those which would have been expected in that year had the sex/age mortality of a standard period (1950-1952) operated on the sex/age population of the year of experience.

6. Indication of reliability

Rates given as 0 indicate that the actual rate is less than one half a unit. A dash (-) in any cell indicates that there were no events. Where a cell has been left blank no denominator is available.

Rates calculated from less than 20 events are distinguished by italic type as a warning to the user that the smallness of the experience may affect their reliability as a measure.

Numbers

If d represents the deaths in an area and p the population in that area then, if d/p is small, the standard error (s.e.) of d is approximately \sqrt{d} assuming that the deaths are independent of one another. Clearly, the larger the number of deaths the smaller will be the proportionate variability. A deviation either way of twice the s.e. may be expected about once in 20 times. Using this criterion one might expect towns each averaging 20 deaths per year to yield in the same year numbers ranging between 11 and 29 without such differences having any statistical significance. Alternatively it could be said that if 20 deaths were recorded for a town, this number would have a 95 per cent confidence interval of approximately ± 9 , there being a 95 per cent chance that the underlying mortality is represented by a number of deaths within this interval.

If d is thought to be an extreme variation it would be more reliable to use as the standard error not \sqrt{d} but $\sqrt{d'}$ where d' is the number of deaths expected if some standard rate (e.g. the national rate) were applied.

Rates

The appropriate standard error of a death rate when d represents the number of deaths and p the population is

$$\frac{\sqrt{d}}{p} \text{ or } \frac{m}{\sqrt{d}}$$

where m is the death rate. The difference between two local death rates m_1 and m_2 can be regarded as significant only if it amounts to more than twice the standard error of the difference, viz.

$$2 \sqrt{\left(\frac{m_1^2}{d_1} + \frac{m_2^2}{d_2}\right)}$$

Comparison of adjusted rates

Before comparisons are made, other known sources of variation (such as differences in the sex and age composition of the population) must be removed. If C is the local death Area Comparability Factor (see p. 57, 1954 Review, Part III), then mC is to be compared with m' , the national death rate. The s.e. of mC is

$$C \sqrt{\left(\frac{m}{p}\right)}$$

and

$$mC \pm 2C \sqrt{\left(\frac{m}{p}\right)}$$

is to be compared with m' . As already indicated, m' can be used instead of m in the calculation of the s.e.; m' has the advantage of itself having only a small sampling error.

7. Abbreviations

- A.C. administrative county (the administrative county of London consists of the City of London [including the Inner and Middle Temple] and the metropolitan boroughs).
- C.B. county borough.
- M.B. municipal borough.
- Met. B. metropolitan borough.
- U.D. urban district.
- R.D. rural district.

8. Standard Regions

The constitution of the standard regions of England and Wales used in this volume is as follows:

Northern	Midland	Southern
Cumberland Durham Northumberland Westmorland Yorkshire, North Riding	Herefordshire Shropshire Staffordshire Warwickshire Worcestershire	Berkshire Buckinghamshire Dorset, Part of ⁷ Hampshire Oxfordshire Wight, Isle of
East and West Ridings Yorkshire, East Riding Yorkshire, West Riding	Eastern Bedfordshire Cambridgeshire Ely, Isle of Essex, Part of ⁸ Hertfordshire, Part of ⁴ Huntingdonshire Norfolk Suffolk, East Suffolk, West	South Western Cornwall Devon Dorset, Part of ⁸ Gloucestershire Somerset Wiltshire
North Western Cheshire Derbyshire, Part of ¹ Lancashire		Wales I (South East) Breconshire Carmarthenshire Glamorgan Monmouthshire
North Midland Derbyshire, Part of ² Leicestershire Lincolnshire Parts of Holland Parts of Kesteven Parts of Lindsey Northamptonshire Nottinghamshire Peterborough, Soke of Rutland	London and South Eastern Essex, Part of ⁵ Hertfordshire, Part of ⁶ Kent London A.C. Middlesex Surrey Sussex, East Sussex, West	Wales II (remainder) Anglesey Caernarvonshire Cardiganshire Denbighshire Flintshire Merionethshire Montgomeryshire Pembrokeshire Radnorshire

- ¹ Buxton M.B., Glossop M.B., New Mills U.D., Whaley Bridge U.D. and Chapel en le Frith R.D.
² All except areas stated in 1 above.
³ All except East Ham C.B., West Ham C.B., Chingford M.B., Wanstead and Woodford M.B., Leyton M.B., Walthamstow M.B., Ilford M.B., Barking M.B., Dagenham M.B., Waltham Holy Cross U.D. and Chigwell U.D.
⁴ All except Barnet U.D., Bushey U.D., Cheshunt U.D., East Barnet U.D. and Elstree R.D.
⁵ All areas stated in 3 above.
⁶ All areas stated in 4 above.
⁷ Poole M.B. only.
⁸ All areas except Poole M.B.

9. Conurbations

The conurbation areas each consist of an aggregation of entire local authority areas and are constituted as follows:

Tyneside		
Durham (part)	Northumberland (part)	
Gateshead C.B. South Shields C.B.	Newcastle upon Tyne C.B. Tynemouth C.B.	Newburn U.D. Wallsend M.B. Whitley Bay M.B.
Felling U.D. Hebburn U.D. Jarrow M.B. Whickham U.D.	Gosforth U.D. Longbenton U.D.	
West Yorkshire		
Yorkshire, West Riding (part)		
Bradford C.B. Dewsbury C.B. Halifax C.B. Huddersfield C.B. Leeds C.B. Wakefield C.B.	Colne Valley U.D. Denby Dale U.D. Denholme U.D. Elland U.D. Heckmondwike U.D. Holmfirth U.D.	Mirfield U.D. Morley M.B. Ossett M.B. Pudsey M.B. Queensbury and Shelf U.D. Ripponden U.D.
Aireborough U.D. Baildon U.D. Batley M.B. Bingley U.D. Brighouse M.B.	Horbury U.D. Horsforth U.D. Keighley M.B. Kirkburton U.D. Meltham U.D.	Rothwell U.D. Shipley U.D. Sowerby Bridge U.D. Spenborough M.B. Stanley U.D.
South East Lancashire		
Cheshire (part)	Lancashire (Part)	
Stockport C.B.	Bolton C.B. Bury C.B. Manchester C.B. Oldham C.B. Rochdale C.B. Salford C.B.	Kearsley U.D. Lees U.D. Littleborough U.D. Little Lever U.D. Middleton M.B.
Alderley Edge U.D. Altrincham M.B. Bowdon U.D. Bredbury and Romiley U.D. Cheadle and Gatley U.D.	Ashton-under-Lyne M.B. Audenshaw U.D. Chadderton U.D. Crompton U.D. Denton U.D.	Milnrow U.D. Mossley M.B. Prestwich M.B. Radcliffe M.B. Royton U.D.
Dukinfield M.B. Hale U.D. Hazel Grove and Bramhall U.D. Hyde M.B.	Droylsden U.D. Eccles M.B. Failsworth U.D. Farnworth M.B. Heywood M.B.	Stretford M.B. Swinton and Pendlebury M.B. Tottington U.D. Urmston U.D. Wardle U.D.
Marple U.D. Sale M.B. Stalybridge M.B. Wilmslow U.D.	Horwich U.D. Irlam U.D.	Westhoughton U.D. Whitefield U.D. Whitworth U.D. Worsley U.D.
Disley R.D.		

Merseyside

<i>Cheshire (part)</i>		<i>Lancashire (part)</i>
Birkenhead C.B.	Ellesmere Port M.B.	Bootle C.B.
Wallasey C.B.	Hoylake U.D.	Liverpool C.B.
	Neston U.D.	
Bebington M.B.	Wirral U.D.	Crosby M.B.
		Huyton-with-Roby U.D.
		Litherland U.D.

West Midlands

<i>Staffordshire (part)</i>		<i>Warwickshire (part)</i>
Smethwick C.B.	Darlaston U.D.	Birmingham C.B.
Walsall C.B.	Rowley Regis M.B.	Solihull M.B.
West Bromwich C.B.	Sedgley U.D.	Sutton Coldfield M.B.
Wolverhampton C.B.	Tettenhall U.D.	
	Tipton M.B.	<i>Worcestershire (part)</i>
Aldridge U.D.		Dudley C.B.
Amblecote U.D.	Wednesbury M.B.	Halesowen M.B.
Bilston M.B.	Wednesfield U.D.	Oldbury M.B.
Brierley Hill U.D.	Willenhall U.D.	Stourbridge M.B.
Coseley U.D.		

Greater London

<i>London A.C.</i>	<i>Hertfordshire (part)</i>	<i>Surrey (part)</i>
	Barnet U.D.	Croydon C.B.
<i>Middlesex</i>	Bushey U.D.	Banstead U.D.
	Cheshunt U.D.	Barnes M.B.
	East Barnet U.D.	Beddington and Wallington M.B.
<i>Essex (part)</i>	Elstree R.D.	Carshalton U.D.
East Ham C.B.		Coulsdon and Purley U.D.
West Ham C.B.	<i>Kent (part)</i>	Epsom and Ewell M.B.
Barking M.B.	Beckenham M.B.	Esher U.D.
Chigwell U.D.	Bexley M.B.	Kingston-upon-Thames M.B.
Chingford M.B.	Bromley M.B.	Malden and Coombe M.B.
Dagenham M.B.	Chislehurst and Sidcup U.D.	Merton and Morden U.D.
Ilford M.B.		Mitcham M.B.
Leyton M.B.	Crayford U.D.	Richmond M.B.
Waltham Holy Cross U.D.	Erith M.B.	Surbiton M.B.
Walthamstow M.B.	Orpington U.D.	Sutton and Cheam M.B.
Wanstead and Woodford M.B.	Penge U.D.	Wimbledon M.B.

10. Urban and rural aggregates

These aggregates comprise (a) the six conurbations combined, (b) the aggregates of urban local authority areas outside the conurbations in three groups according to the size of their resident population at the 1961 Census and (c) the aggregate of rural local authority areas outside the conurbations. Urban areas include boroughs and urban districts as defined by the Local Government Acts, and rural districts are also defined by those Acts.

11. Hospital Regions

The hospital regions each consist of an aggregation of local authority areas, including associated county boroughs, and are constituted as follows:

Newcastle		
<i>Cumberland</i>	<i>Yorkshire, North Riding (part)</i>	
<i>Durham</i>	Middlesbrough C.B.	Skelton and Brotton U.D.
		Thornaby-on-Tees M.B.
<i>Northumberland</i>	Eston U.D.	
	Guisborough U.D.	
<i>Westmorland (part)</i>	Loftus U.D.	Croft R.D.
	Northallerton U.D.	Northallerton R.D.
Appleby M.B.	Redcar M.B.	Reeth R.D.
	Richmond M.B.	Richmond R.D.
North Westmorland R.D.	Saltburn and Marske-by-the-Sea U.D.	Startforth R.D.
		Stokesley R.D.

Leeds	
<i>Yorkshire, East Riding</i>	<i>Yorkshire, West Riding (part)</i> (except areas stated in Sheffield Region)
<i>Yorkshire, North Riding (part)</i> (except areas stated in Newcastle Region)	

Sheffield

Leicestershire	Yorkshire, West Riding (part)	
Lincolnshire	Barnsley C.B.	Royston U.D.
Parts of Holland	Doncaster C.B.	Stockbridge U.D.
Parts of Lindsey	Rotherham C.B.	Swinton U.D.
	Sheffield C.B.	Tickhill U.D.
Nottinghamshire	Adwick-le-Street U.D.	Wath-upon-Dearne U.D.
Derbyshire (part)	Bentley with Arksey U.D.	Wombwell U.D.
(except areas stated in Manchester Region)	Conisborough U.D.	Worsborough U.D.
	Cudworth U.D.	
	Darfield U.D.	Doncaster R.D.
Lincolnshire		Kiveton Park R.D.
Parts of Kesteven (part)	Darton U.D.	Penistone R.D.
(except areas stated in East Anglia Region)	Dearne U.D.	Rotherham R.D.
	Dodworth U.D.	
	Hoyland Nether U.D.	Thorne R.D.
Rutland (part)	Maltby U.D.	Wortley R.D.
Oakham U.D.	Mexborough U.D.	
Oakham R.D.	Penistone U.D.	
Uppingham R.D.	Rawmarsh U.D.	

East Anglia

Cambridgeshire	Suffolk, West	Lincolnshire
Ely, Isle of	Essex (part)	Parts of Kesteven (part)
Huntingdonshire	Saffron Walden M.B.	Stamford M.B.
Norfolk	Saffron Walden R.D.	Bourne U.D.
Peterborough, Soke of	Hertfordshire (part)	South Kesteven R.D.
Suffolk, East	Royston R.D.	Rutland (part)
		Ketton R.D.

North West Metropolitan

Bedfordshire	Berkshire (part)	London Admin. County (part)
Hertfordshire (part)	Maidenhead M.B.	Hammersmith Met. B. (part)
(except areas stated in East Anglia and North East Metropolitan Regions)	New Windsor M.B.	Hampstead Met. B.
	Cookham R.D.	Holborn Met. B.
	Easthampstead R.D.	Islington Met. B.
	Windsor R.D.	Kensington Met. B. (part)
Middlesex (part)	Buckinghamshire (part)	Paddington Met. B. (part)
(except areas stated in North East Metropolitan Region)	Beaconsfield U.D.	St. Marylebone Met. B.
	Eton U.D.	St. Pancras Met. B.
	Slough M.B.	Westminster Met. B. (part)
	Eton R.D.	

North East Metropolitan

Essex (part)	Hertfordshire (part)	London Admin. County (part)
(except areas stated in East Anglia Region)	Bishop's Stortford U.D.	City of London
	Cheshunt U.D.	Inner and Middle Temple
Middlesex (part)	Hertford M.B.	Bethnal Green Met. B.
Edmonton M.B.	Hoddesdon U.D.	Finsbury Met. B.
Enfield M.B.	Sawbridgeworth U.D.	Hackney Met. B.
Tottenham M.B.	Ware U.D.	Poplar Met. B.
	Braughing R.D.	Shoreditch Met. B.
	Hertford R.D.	Stepney Met. B.
	Ware R.D.	Stoke Newington Met. B.

South East Metropolitan

Kent	London Admin. County (part)	
Sussex, East	Bermondsey Met. B.	Lambeth Met. B. (part)
	Camberwell Met. B.	Lewisham Met. B.
	Deptford Met. B.	Southwark Met. B. (part)
	Greenwich Met. B.	Woolwich Met. B.

South West Metropolitan

Surrey	Sussex, West	London Admin. County (part)
Hampshire (part)	Battersea Met. B.	Lambeth Met. B. (part)
Aldershot M.B.	Chelsea Met. B.	Paddington Met. B. (part)
Farnborough U.D.	Fulham Met. B.	Southwark Met. B. (part)
Fleet U.D.	Hammersmith Met. B. (part)	Wandsworth Met. B.
Hartley Wintney R.D. (part)	Kensington Met. B. (part)	Westminster Met. B. (part)
Petersfield R.D. (part)		

Wessex

Wight, Isle of	Wiltshire (part)
Dorset (part)	Salisbury M.B.
(all areas except Lyme Regis M.B.)	Wilton M.B.
	Amesbury R.D.
Hampshire (part)	Mere and Tisbury R.D.
(except areas stated in South West Metropolitan Region)	Salisbury and Wilton R.D.

Oxford				
<i>Northamptonshire</i> <i>Oxfordshire</i> <i>Berkshire (part)</i> <i>(except areas stated in North West Metropolitan Region)</i> <i>Buckinghamshire (part)</i> <i>(except areas stated in North West Metropolitan Region)</i>	<i>Gloucestershire (part)</i> Cirencester U.D. Cirencester R.D. North Cotswold R.D. Northleach R.D.	<i>Wiltshire (part)</i> Marlborough M.B. Swindon M.B. Cricklade and Wootton Bassett R.D. Highworth R.D. Marlborough and Ramsbury R.D. Pewsey R.D.		
South Western				
Cornwall. Devon. Somerset. Dorset (part) Lyme Regis M.B.	<i>Gloucestershire (part)</i> <i>(except areas stated in Oxford Region)</i> <i>Wiltshire (part)</i> <i>(except areas stated in Wessex and Oxford Regions)</i>			
Welsh				
All areas in Wales including Monmouthshire				
Birmingham				
<i>Herefordshire</i>	<i>Shropshire</i>	<i>Staffordshire</i>	<i>Warwickshire</i>	<i>Worcestershire</i>
Manchester				
<i>Cheshire (part)</i> <i>(except areas stated in Liverpool Region)</i> <i>Lancashire (part)</i> <i>(except areas stated in Liverpool Region)</i> <i>Westmorland (part)</i> <i>(except areas stated in Newcastle Region)</i>		<i>Derbyshire (part)</i> Buxton M.B. Glossop M.B. New Mills U.D. Whaley Bridge U.D. Chapel en le Frith R.D.		
Liverpool				
<i>Cheshire (part)</i> Birkenhead C.B. Chester C.B. Wallasey C.B. Bebington M.B. Ellesmere Port U.D. Hoylake U.D. Lymm U.D. Neston U.D. Runcorn U.D. Wirral U.D. Chester R.D. Northwich R.D. (part) Runcorn R.D. Tarvin R.D.		<i>Lancashire (part)</i> Bootle C.B. Liverpool C.B. St. Helens C.B. Southport C.B. Warrington C.B. Crosby M.B. Formby U.D. Golborne U.D. Haydock U.D. Huyton with Roby U.D. Kirkby U.D. Litherland U.D. Newton-le-Willows U.D. Ormskirk U.D. Prescot U.D. Rainford U.D. Skelmersdale U.D. Widnes M.B. Warrington R.D. West Lancashire R.D. Whiston R.D.		

12. Assignment of vital statistics by area

In all tables births and stillbirths are classified according to the area of usual residence of the mother, and deaths to the area of usual residence of the deceased, if this is within England and Wales; if not, to the area of occurrence. Accommodation provided under Parts III and IV of the National Assistance Act, 1948, is regarded as the place of residence of persons dying there. Before 1st January, 1958, chronic sick and psychiatric hospitals were similarly treated for this purpose but from that date the method of classification was modified, the main change being that a death in such a hospital is now assigned to the area of occurrence only if the deceased had been there six months or more. If the deceased had been there less than six months the death is transferred to the area of previous usual residence.

13. General

See also the Explanatory Notes to the Tables Volumes, Parts I and II.

CORRECTIONS

Statistical Review, 1962: Part III Commentary

Page 187 Table CXXIII (E); column 3
Chester
for 327.9 read 1,327.9

Page 266 Table CXLIII; column 3
Salicylate
*for Tubercular degeneration of kidneys read Tubular degeneration
of kidneys*

INTRODUCTION

The contents of this volume follows the pattern for previous years in that it contains comment on statistics of life and death already published in Parts I and II of the Statistical Review for 1963. This year marked the adoption by the General Register Office of automatic data processing equipment, with consequent changes in the layout of some of the tables published in the two earlier volumes and in both the size and method of production of the Statistical Review as a whole. In view of these changes, an account is published in this volume, in the chapter entitled "Vital Statistics in England and Wales", of the sources of these statistics and the ways in which they are now processed. 1963 was also the final year during which information on intending migrants travelling to and from the United Kingdom by the long sea routes was statutorily collected and this has led to the inclusion of a separate chapter on migration. Other special features include a review of the effects on mortality of the cold winter of 1963, an analysis of deaths from thyrotoxicosis and myxoedema during the past twenty years and a report on the methods used to compile estimates of the marital condition of the population.

For the future - that is, in the Commentary volume relating to 1964 and onwards - some substantial changes are to be introduced. First, the intention is to publish comment on significant statistical trends more quickly in publications other, and possibly more specialised, than the Statistical Review. If such comment is not, for convenience, repeated later in the Statistical Review, reference to it will be given; but in general the Commentary volume will be reserved for broad coverage of the main national trends. Secondly, beginning with the Statistical Review for 1965, a considerable number of tables which until now have been published in the Commentary volume will appear instead in Parts I and II as appropriate, the intention being that, so far as possible, tables should be published in the Commentary only if they are illustrative of the text.

General Register Office,
Somerset House,
London, W.C.2.

January 1966.

VITAL STATISTICS IN ENGLAND AND WALES

A survey of sources and production

Compulsory registration of births, marriages and deaths serves two main purposes - on the one hand legal and administrative and on the other statistical. This chapter describes how the machinery operates in England and Wales for the second purpose - that is, producing vital statistics.

The rapid development of vital statistics which followed the introduction of compulsory registration throughout England and Wales was due largely to administrative action within the General Register Office. *The Births and Deaths Registration Act, 1836*, required the Registrar General to produce a "general abstract" including marriage statistics to be laid before Parliament annually, and this requirement was given a wide interpretation from the outset. A comprehensive series of vital statistics was built up, closely linked with the statistical information derived from the decennial censuses. But the essential raw materials for these vital statistics depend for their accuracy both on the skill of the local registration officer in obtaining the facts from the public and recording them, and on the co-operation of the citizen who gives the information required. No amount of statistical processing could cure weaknesses in the information collected and so, but for that skill and that co-operation, there would be lost valuable basic material used not only for the routine day-to-day assessment of the needs of the community, but also for the study of social, medical and economic problems.

The registration system in England and Wales

One of the main reasons for the establishment in 1837 of a system of civil registration was specifically to provide legal records which would be beyond suspicion and unambiguous in their content. It was against this background that various systems were considered, and it was decided that a system of oral question and answer was the one most likely to achieve this object. Under the current statute (*the Births and Deaths Registration Act, 1953*) the system which was introduced in 1837 is continued broadly unchanged.

The registration service is organised locally under *the Registration Service Act, 1953*. The councils of counties, county boroughs and London boroughs have the responsibility for dividing their authorities into registration areas, and for appointing and paying the necessary number of registration officers, who are instructed in their duties by the Registrar General. Since this is essentially a local service and because it is important that registration facilities should be readily available to all citizens, wherever they may live, the amount of work in a registration area drawn up by a local authority does not always justify the appointment of a whole-time officer, and in fact more than half the registration officers in this country occupy part-time posts.

At the present time there are some 1,200 registrars of births and deaths, each one responsible for the collection and registration of information relating to every

birth, stillbirth and death which occurs within the sub-district for which he is responsible. Each one has an office which he attends during publicly announced hours, and many also attend at out-stations, hospitals and maternity homes in the area to give informants every opportunity to discharge their registration duties. (Arrangements for the registration of marriages are a separate matter, and are discussed later.)

The registration of births

Information for the registration of the birth of a child must be given by a qualified informant, within 42 days after the birth, to the registrar of births and deaths for the sub-district in which the event occurred, either directly or through any other registrar. The duty of giving this information rests primarily with the parents of the child, but other qualified informants include the occupier of the place where the birth occurred, a person present at the birth, or a person in charge of the child. If the child is illegitimate, the father of the child is not qualified as such to give information for the registration and his name cannot be entered in the register unless he and the mother attend together before the registrar and both sign the register. The births of about 40 per cent of illegitimate children are registered in this way on the information of both parents.

When a qualified informant attends to give information for the registration of a birth, the registrar questions him about the date and place of the birth, the name and sex of the child, the name and occupation of the father, and the name and maiden name of the mother and her usual residence if the child was born away from home. He enters this information on to a form of draft entry, which serves various purposes (see page 8) as well as its use as a document which the registrar can show to the informant to check that the particulars which he has taken down are correct before he enters them in the register. The correction of errors which are not detected at this stage may prove a lengthy and tedious procedure. At the same time the registrar obtains and records on the form the confidential particulars required under the Population (Statistics) Acts, which are not entered in the register and are used only for statistical purposes. When the informant agrees that the information which he has given has been correctly written on the form, the registrar makes the entry in the register, and this is signed by both the informant and the registrar.

The registration of deaths

Information for the registration of a death must be given by a qualified informant, within five days after the death, to the registrar of births and deaths for the sub-district in which the event occurred. People qualified to give information include relatives of the deceased, people present at the death, the occupier or an inmate of the place where the death occurred, and the person responsible for the arrangements for the burial or cremation. About three-quarters of the deaths of men and two-thirds of the deaths of women are registered on the information of close relatives. The remainder are registered mainly on the information of unrelated persons, such as chief resident officers of hospitals.

The procedure at the registration of a death is similar to that for a birth, except that in addition to the information which is given by the informant (date and place of death, name, sex, age and occupation of deceased and his usual residence if the death took place elsewhere) the registrar also copies particulars of the cause

LIVE BIRTH

District:—

Sub-district:—

Entry No.

Informant's name and address	Qualification	A
		C
DRAFT OF PARTICULARS TO BE REGISTERED		
1. When and where born		D
2. Name, if any	3. Sex	
4. Name and surname of father		
5. Name, surname and maiden surname of mother	F	
	G	
6. Occupation of father	H	
P		
CONFIDENTIAL PARTICULARS		
The following particulars, which are required under the Population (Statistics) Acts of 1938 and 1960, will not be entered in the register. This information will be confidential and used only for the preparation of statistics by the Registrar General.		
In all cases:		
1. Mother's age at her last birthday before the above birth		
Where the father's name is entered in the register:		
2. Father's age at his last birthday before the above birth		
Where the child is of legitimate birth:		
3. Date of marriage:— Month..... Year.....		
4. Has the mother been married more than once? (Yes or No)		
5. Mother's previous children (excluding birth or births now being registered) by her present husband and any former husband:—		
a. Number born alive (including any who have since died)		
b. Number still-born		
If the birth is one of twins or multiple births, registration officer to state here the entry number(s) at which the other birth(s) are registered.	Live births	Still-births
Signature of registration officer by whom the above particulars were obtained.	Date of registration.	
Signature of registrar registering birth on declaration.		

DEATH

District:—

Sub-district:—

Entry No.

Informant's name and address	Qualification	B
		C
DRAFT OF PARTICULARS TO BE REGISTERED		
1. When and where died		D
2. Name and surname	3. Sex	
	4. Age	
5. Occupation	E	
	F	
	G	
	H Employee*	
	Self-employed { with employees* w/o employees*	
6. Cause of death	J	
I a	J	
b	J	
c	J	
II	J	
Certified by	M	N
P	O National Health Service Medical card collected: Yes* No* If No: NHS No. or date of birth.....	
CONFIDENTIAL PARTICULARS		
The following particulars, which are required under the Population (Statistics) Acts of 1938 and 1960, will not be entered in the register. This information will be confidential and used only for the preparation of statistics by the Registrar General.		
1. State whether at the date of death deceased was (a) single, (b) married, (c) widowed, or (d) divorced.		
2. If married at the date of death, state age last birthday of deceased's surviving widow or widower.		
Signature of registrar	Date of registration.	

* Delete what does not apply.

STILL-BIRTH

District:—

Sub-district:—

Informant's name and address		Qualification	Entry No.	
			B	
			C	
DRAFT OF PARTICULARS TO BE REGISTERED				
1. When and where born			D	
3. Name and surname of father		2. Sex		
4. Name, surname and maiden surname of mother		F		
		G		
5. Occupation of father		H		
8. Cause of death and evidence that child was still-born:				
I a		K		
b		weeks		
c		L		
II		lbs.		oz.
Certified by		M	N	
P				
CONFIDENTIAL PARTICULARS				
The following particulars, which are required under the Population (Statistics) Acts of 1938 and 1960, will not be entered in the register. This information will be confidential and used only for the preparation of statistics by the Registrar General.				
In all cases:				
1. Mother's age at her last birthday before the above birth				
Where the father's name is entered in the register:				
2. Father's age at his last birthday before the above birth				
Where the child is of legitimate birth:				
3. Date of marriage:— Month..... Year.....				
4. Has the mother been married more than once? (Yes or No)				
5. Mother's previous children (excluding birth or births now being registered) by her present husband and any former husband:—				
a. Number born alive (including any who have since died)				
b. Number still-born				
If the birth is one of twins or multiple births, registration officer to state here the entry number(s) at which the other birth(s) are registered.		Live births	Still-births	
Signature of registrar		Date of registration		

of death from the medical certificate which the doctor who had been in attendance on the deceased has sent to the registrar or given to the informant. A draft entry (see page 5) is prepared and additional information, not for entry in the register, is obtained.

In cases where it is necessary to report a death to a coroner, it cannot be registered until he has completed his investigations. When an inquest is held, the registrar will register the death on the authority of a document issued to him by the coroner, and in such cases the attendance of an informant is not required.

The registration of stillbirths

A stillborn child is a child which has issued forth from its mother after the twenty-eighth week of pregnancy, and which did not at any time after being completely expelled from its mother breathe or show any other signs of life. As in the case of a live birth, the duty of giving information for the registration of the birth of a stillborn child rests primarily on the parents, or, failing them, on the occupier of the place where the stillbirth occurred, or a person present at the birth. Before making a registration, the registrar of the sub-district where the birth occurred requires evidence that it was indeed a stillbirth, and this takes the form of a certificate setting out the cause of death which will have been issued by the doctor who was present at the birth or who examined the body or, if there was no such doctor, by the midwife in attendance on the mother. The particulars recorded in a stillbirth register are the same as for live births, except that the child is not named, and the cause of death is recorded.

The registration of marriages

In this country marriage may be celebrated between persons aged sixteen or over, either according to the rites and ceremonies of the Church of England after appropriate ecclesiastical preliminaries or, after the appropriate civil preliminaries have been observed, according to the rites of any other religious denomination or before a superintendent registrar.

At the present time there are some 530 superintendent registrars, each one responsible for the conduct of civil preliminaries to marriage within his district. Each one attends at the district register office during publicly announced hours, and also at the solemnization of civil marriages at the register office between the statutory hours of 8 a.m. and 6 p.m.

Marriage after civil preliminaries may be on the authority of a superintendent registrar's certificate, without licence, or of his certificate and licence, and may be solemnized in a register office, in a registered building (i.e. a place of worship which has been registered for the solemnization of marriages) or according to the usages of the Jews or Quakers. These documents are issued by superintendent registrars after the parties wishing to marry have followed the statutory procedures required for the giving of notice of marriage. It is at this stage that the necessary facts about the parties proposing to marry are brought to light, and any consents required by law are given.

Marriages are registered immediately after the conclusion of the ceremony. A marriage in a church of the Church of England is registered by the clergyman who

solemnized the marriage. A marriage in a nonconformist church may be solemnized in the presence of an authorised person (i.e. a person authorised by the trustees or governing body to be present at the solemnization of marriages in the building) in which case the marriage is registered by that person, or in the presence of a registrar of marriages (who is frequently the local registrar of births and deaths), who will register the marriage. A marriage in a register office is registered by the registrar of marriages. The particulars recorded in the marriage register include the date and place of the marriage, the names, ages, marital condition and occupations of the parties, and the names and occupations of their respective fathers. The entry is signed by both parties to the marriage and two witnesses.

The statistical record

Births, stillbirths and deaths

The form of draft entry already referred to is designed to serve several purposes besides its use in avoiding errors in the register, and in fact it constitutes the basic statistical record of each live birth, stillbirth, or death. The three forms are reproduced on pages 4 to 6. The draft of the register entry itself shows the essential facts of sex, age, legitimacy, cause of death, etc., but in addition the form enables the registrar to record certain other particulars which supplement these. It also constitutes the form provided under *the Population Statistics Acts, 1938 and 1960*, for recording particulars on fertility which, because they are treated as confidential in accordance with the Acts, cannot be entered in the register.

The supplementary particulars include information from the medical certificate of cause of death, such as the duration of the morbid conditions reported and whether or not a post-mortem examination has taken place or, in the case of a stillbirth, information from the certificate of stillbirth on the duration of pregnancy and the birth weight. The registrar also enters on the form supplementary particulars of the occupation entered in the register where these are necessary for statistical analysis. Employment status is also recorded and, if it can be definitely ascertained, the name of the administrative area in which the usual residence of the mother or the deceased person is situated.

The particulars on fertility which are entered on the draft entry form are those specified in the schedule to *the Population (Statistics) Act, 1960*. They comprise, for all births (including stillbirths), the age of the mother; for all legitimate births and those illegitimate births where the father's name is entered in the register (i.e. where the father is joint informant with the mother) the age of the father; and for all legitimate births the date of the parents' marriage, whether the mother had been previously married, and the numbers of the mother's previous liveborn and stillborn legitimate children. For deaths the particulars required comprise the marital status of the deceased person and, if married, the age of the surviving husband or wife.

Thus, practically all the raw material for detailed statistical analysis of births, stillbirths and deaths is drawn together at the registration stage and included in one self-contained document for each event. The only exception to this occurs if the medical certificate, coroner's certificate or certificate of stillbirth states that other medical information, for example from a post-mortem examination, may become available later. In these circumstances the registrar sends to the certifier an enquiry form which is returnable in due course direct to the Statistical

Division of the General Register Office, where the further information is transcribed to the original draft entry form.

Marriages

The circumstances of marriage registration, immediately after the ceremony, do not lend themselves to the filling in at that time of a separate statistical form akin to that used for births and deaths, and in any case the basic facts concerning the parties themselves will have been ascertained beforehand in the course of the preliminaries to marriage, as mentioned earlier. Because of the differing systems of preliminaries, civil and ecclesiastical, and the variety of registering authorities, the quality of the information from the statistical viewpoint is less uniform than obtains with births and deaths. No attempt is made, therefore, to derive marriage statistics in a comparable degree of detail, and a separate record is not used.

The copies of marriage entries which each registering authority submits quarterly for the central archives are themselves used for statistical purposes. No separate coding process is necessary and cards are punched directly from the entries. The details extracted consist of the registration district in which the marriage took place, the parties' ages and previous marital condition, the month of marriage, the nature of the ceremony (religious denomination or civil ceremony), and the type of preliminaries.

Submission of returns

At the end of each week the registrar sends his draft entry forms relating to the week's birth and death registrations, together with control records and certain other material, to the Statistical Division (now located at Titchfield, near Fareham, Hampshire). Here various operations are carried out on the week's forms from all over the country. For example, registrations in London are coded for cause of death, and by Tuesday of each week a tabulation is prepared by hand, showing the numbers of deaths by age and cause, for publication in the following Saturday's *Weekly Return*. Other operations include the extraction of details of deaths where cancer is mentioned, for use by regional cancer registries, and the mechanical (dye-line) copying of certain particulars from every death form for use in the National Health Service Central Register.

For most purposes however, it is convenient to subject each calendar month's registrations of births and deaths separately to statistical processing up to and including the initial computer stage. The statistical forms from each registrar are therefore accumulated, in separate collections of births, stillbirths and deaths, until the month is complete, before the main processing operations are begun.

Processing operations

Coding for area. Tabulations are produced, for the most part annually, for various sub-divisions of the country as well as for England and Wales as a whole. The tabulations are in differing degrees of detail, according to the administrative status of the sub-division, but the basic units distinguished are the 1,400 or so local government administrative areas, i.e. county, London and municipal boroughs, and urban and rural districts. Other sub-divisions such as regions, conurbations,

and administrative counties, are aggregates of these units. The units vary in size from Birmingham County Borough with over 35 thousand births and deaths a year to places such as Llanwrtyd Wells Urban District with under 20 births and deaths a year.

Births and deaths have to be entered in the registers for the area in which they occur, but for tabulation purposes births are assigned to the usual residence of the mother, and deaths to the usual residence of the deceased person, according to the information given at registration, provided that this address is in England or Wales. If it is not, or if the place of usual residence is not ascertainable, the birth or death is necessarily assigned to the area of occurrence. There are special rules relating to the inmates of certain institutions such as chronic sick hospitals, prisons, etc.* An area code denoting the local government area concerned has accordingly to be given to each event. This is a clerical process, but the labour is somewhat reduced by including in the printed draft entry forms supplied to each registrar the code relating to the area in which the events registered in his sub-district (or most of them) are known to occur. The area coding process is thus reduced to amending the printed code in those cases where the area of usual residence differs. This is not always a straightforward task, particularly where localities or postal districts are divided between different local government areas. The area is expressed as a four-digit code originally designed for punched-card machine tabulation but now used within the computer to generate an expanded code which is convenient for computer processing.

No attempt is made to code for area the addresses recorded in marriage entries, because they are simply the addresses of the parties immediately before marriage, which may or may not be their ordinary residences. Analysis by area is thus limited to the place in which the marriage is solemnized; the figures for counties, county boroughs, regions, etc. for which statistics are published are readily derivable from those of the registration districts from which the archival copies referred to earlier are submitted.

Coding for cause of death. Under international agreement the United Kingdom, as a member country of the World Health Organization which subscribes to the Organization's Nomenclature Regulations[†], undertakes to publish mortality statistics analysed by cause according to the International Classification either in its full form (Detailed List) or in a shorter version (the Intermediate List). Deaths in England and Wales are coded to the Detailed List. In the Seventh Revision of the Classification, introduced in 1958, the Detailed List comprises some 600 categories of diseases and morbid conditions and, in addition, 153 categories for classification of the external cause of injury with 189 categories for the nature of the lesion. Each of these categories is denoted by a three-digit code in a decimal system of numbering. Many are sub-divided into fourth-digit categories, while for some diseases a fifth-digit sub-division has been found desirable. The Detailed List categories are assembled into shorter lists for some tabulations by area, e.g., the International Abbreviated List of 50 causes and the Registrar General's Abridged List of 36 causes with 34 sub-divisions.

* Institutions such as almshouses, boarding schools, children's homes, and prisons are treated as the usual residence of their inmates. Chronic sick hospitals and psychiatric hospitals are treated as a deceased person's usual residence if the deceased has been an inmate for more than six months.

† Regulations regarding Nomenclature (including the compilation and publication of statistics) with respect to Diseases and Causes of Death. See *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death*, Volume I. World Health Organization, Geneva 1957.

Stillbirths are also coded for cause according to an international classification slightly modified and further sub-divided, giving about 100 sub-divisions altogether.

Cause of death coding is straightforward if only one precise, unambiguous term is used by the certifier, but often two or more morbid conditions are given. As mortality tabulation by cause is based, by tradition and under the Nomenclature Regulations, on the underlying cause of death, selection then becomes necessary (except where specific combinations of associated causes are defined). The underlying cause is defined as the disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury. The sequence of morbid events should be shown chronologically by the certifier, but this cannot invariably be relied on. The Manual of the International Classification contains various rules for selecting the underlying cause where the sequence given is inherently improbable, or the conditions appear unrelated, or the underlying cause as stated is ill-defined, or in certain other circumstances. But coding experience and national practice also play a part in the application of these rules to individual cases, and cause of death coding thus involves training and expertise.

Coding for occupation and employment status. Important for medical and sociological purposes are analyses of vital events by occupation groups, socio-economic groups and social classes. The criteria for assigning individuals to these groups and classes available from the details elicited at death registration are limited to the occupation, industry, and employment status of the deceased person (or of his parent if the person is under 15). At birth registration similar details are obtained relating to the child's father (or the mother if the father's name is not entered in the register). These occupational details are used to code events to one of some 200 occupation categories defined in the *Classification of Occupations**, and one of eight status categories. Together these two codes provide a classification by socio-economic group and social class, as set out in Appendix B.1 of the *Classification of Occupations*.

As comparable population denominators are required for these analyses, coding of deaths for occupation and status is usually restricted to the years round the census, the most recent such period being 1959-1963. For similar analyses of infant deaths and stillbirths, however, the corresponding live births form a more accurate denominator, and consequently live births may also need to be coded for occupation and status. In the past, too, births have from time to time been thus coded to provide analyses of fertility by social class and occupation.[‡]

Miscellaneous coding. One of the items written by the registrar on the death and stillbirth forms is whether or not the cause of death has been confirmed by post-mortem. In conjunction with the type of certification (i.e. by registered medical practitioner, by coroner, or uncertified by either) this is used, during the cause of death coding process, to form a one-digit code for use in certain tabulations. The coder also inserts, in appropriate cases, a further one-digit code denoting association of the assigned cause of death with certain other conditions, e.g. pregnancy, anaesthesia, alcoholism. Both codes enable various supplementary analyses to be made from the death records.

* General Register Office: *Classification of Occupations 1980*. H.M.S.O. London, 1980, (out of print).

‡ For example: *The Registrar General's Decennial Supplement, England and Wales, 1931, Part IIB, Occupational Fertility 1931 and 1939*. H.M.S.O. London, 1953.

During the area coding process another one-digit code is added to denote the "place of occurrence" of the birth or death, e.g. in a National Health Service hospital, a non-N.H.S. hospital or maternity home, the mother's own home, etc. The same code is used for live births, stillbirths and deaths. Also during the area coding process the forms relating to illegitimate births and stillbirths are given a distinctive symbol to aid in the punching.

Transferable events. An important facet of the area coding procedure is the notification to local medical officers of health of particulars of deaths which occur outside their area but which for statistical purposes are assigned to that area. These are known as inwardly transferable deaths or inward transfers and they amount to nearly 30 per cent of the total deaths. The relevant forms are distinctively marked, and reference particulars are noted, during the area coding process. The medical officer is enabled by statute to obtain from the registrar or registrars concerned particulars of deaths which occur in his district, and the centrally supplied particulars of inward transfers complete his local records. Reference particulars of the same transfers are correspondingly notified to the medical officer from whose district the deaths are statistically removed (outward transfers). This arrangement enables any erroneous assignments of area code to be corrected at an early stage.

A similar system exists for notifying medical officers of transferable stillbirths, but it has not been found generally necessary to deal with live births in this way.

Punching. As stated earlier, one statistical form for each event serves for all the non-mechanical processes. When all the codes described above have been entered on the forms and checked, the forms pass in their monthly bundles to a punching section. The punch operator's task is to convert the information into the form of holes in a machine card, each section or field of which represents a particular item of data. Some items remain constant for a batch of forms, e.g. the year and month of registration, and the registration district and sub-district numbers, and can be punched automatically for that batch from an initial punching into a "leader card". The latter is also punched with the total number of entries for the sub-district, as counted and checked when the entries are first received. This total serves as a control figure for later stages. Other items are either in numerical form already, e.g. ages, or in the case of multiple births reference particulars of the other births, or are readily converted to numerical form at sight by the puncher, e.g. the month of occurrence of the birth or death, the sex and legitimacy of a child, the marital condition of a deceased person, etc., while the remainder will bear against them the codes assigned by the coders.

In the case of marriages, for which no prior coding will have been done, the operator first punches into a "leader card" the items which remain constant for a particular registration district, including the year, the quarter, and the district number. These items are then automatically punched into all the data cards for that district. The leader card is also punched with the control total of marriages in that district. The operator then punches the other items either at sight, e.g. the ages of the parties, or after mentally coding them, e.g. the previous marital conditions of the parties in combination, the religious denomination of the ceremony, or whether it is a civil marriage in a register office, and the nature of the marriage preliminaries (banns, superintendent registrar's certificate or licence, etc.). As these items occupy only nine columns of the card, there is space for eight marriages in the same district on one eighty-column card. Cards of this capacity are used for all types of punching.

To minimise errors due to mis-reading or mis-punching by the operator, each record is punched a second time by a different operator on a verifying machine using the same cards. On this machine if the second operator attempts to punch in any card position a different code from the one already punched (which she cannot see), the machine halts. If a second and a third attempt by the operator still yield a discrepancy, the offending card is distinctively marked by the machine. When the batch is finished, all such cards are replaced by corrected cards.

Transfer to automatic data processing. Up to 1962 the bulk of the vital statistics published by the Department had been produced (since 1911) through a punched card installation, for which cards were produced on broadly similar principles to those described above. This installation had developed over the years from simple sorters and counters, using 36- or 45- column cards, to printing-counting-sorters, using 65-column cards. In general the tabulations printed out by these machines were used to produce by clerical methods tables in the form required for printing by letterpress or other means for publication purposes. As the arithmetical abilities of the punched card machines were confined to addition, much computation by desk calculating machine, slide rule, etc. for the calculation of rates and ratios was included in the clerical stage of production.

The limitations of conventional punched card methods had begun to make themselves felt in the late 'fifties, when in any case the time had come to think about the renewal of the existing machinery at the end of its useful life. A comprehensive review of all the Department's statistical work was accordingly carried out in 1959-1960 in order that the feasibility of translating it to automatic data processing could be considered. A decision was made in the following year to obtain a computer which would be capable of undertaking both the statistical work and also the compilation of the quarterly alphabetical indexes to the births, deaths and marriages, a task which was being carried out mainly by manual methods. This computer, an IBM 1401 model with 16 thousand positions of core storage, six magnetic tape units, a card read/punch unit, and an output printer, was ordered towards the end of 1961, and actual operations began on the machine at the middle of 1963.

Computer processing. The annual input of statistical data for births, deaths and marriages amounts to some 1.8 million records. To deal with this quantity, and to provide necessary tabulations at quarterly or monthly intervals, the general pattern of computer processing is to create from the punched cards files on magnetic tape of the records for a convenient period, and accumulate the year's files as the data for each period become available. For births and deaths the chosen period is a calendar month's registrations, and for marriages a calendar quarter's registrations.

Taking births as an example for the purpose of describing the computer processes in general terms, a month's punched cards, numbering between 65 and 80 thousand according to the particular month, are loaded into the computer, via the card reader, together with the first programmes of instructions. In the initial processes extensive checking takes place in order to detect, as far as possible, by comparison with criteria in the instructions, any record which appears to contain erroneous or internally inconsistent information. In addition, the numbers of records are checked against the control figures, records for multiple births are matched with one another, and any items of information shown by the registrar as "not stated" or "not known" are supplied by the computer as described in Explanatory Note 12 of Part II. Records which pass all the tests successfully are written on to magnetic tape (in a code known as binary coded decimal), while unacceptable records are printed out for

reference back to the source document. Any necessary corrections are later fed back to the main magnetic tape files by means of fresh punched cards.

In order to speed up and simplify later operations the tape files of basic records thus corrected are then processed within the computer to produce two distinct further tape files of primary records arranged in order of (a) area of residence, (b) age of mother. These files are used in two ways: their contents are merged with the records of earlier months so that at the end of the year there will be two complete files in area and age order; and the figures they represent are added in to summary tabulations for each area and each age, so that a year's summary tabulations are accumulated month by month. Arrangements are made to alter records and tabulations on tape when changes or corrections arise outside the computer system.

The summary tabulations for each area and each age are so designed that most of the annual and quarterly tables can be compiled from them without the need for repeated processing of the large primary files. Where a set of tables refers to a particular category of records, e.g. stillbirths, a sub-file of records is extracted from one of the main primary files and used to provide the necessary tables in an economical manner.

All the records and summary tabulation files for the year are kept permanently on tape for future reference and tabulation.

Local vital statistics. An early stage of the annual tabulations is to provide an analysis of deaths by the 36 causes of the Registrar General's Abridged List in 22 sex-age groups for each of the 1,400 or so local government areas. This analysis is printed out by computer and sent to the local medical officers of health concerned for use in their annual reports. They thus have an opportunity to question any apparent discrepancy in the figures for their area in comparison with locally compiled figures. Subject to the limitations imposed by the processing timetable, errors pin-pointed through this means can be corrected before further annual tabulations are produced. Local medical officers of health are also supplied with annual live birth, stillbirth, and infant death figures by sex and legitimacy, printed out by computer from the magnetic tape files.

Other vital statistics. For marriages there is a similar, but simpler, process of feeding into the computer and editing data each quarter, and building up the year's file of marriage records, from which Tables F-N in Part II of the *Statistical Review* are compiled. Certain data are also tabulated each half-year for the purpose of making estimates at mid-year of the population by marital condition.

Corresponding figures of dissolutions and annulments of marriage are produced by computer from data extracted, and later punched, from the records of the central Divorce Registry, but in this case, because of the numbers involved, it is sufficient to create half-yearly tape files and later combine them to yield the tabulations published as Tables P1-P7 in Part II.

Production of the Statistical Review Tables Volumes. The computer's printing unit produces tabulations which are entirely suitable for some purposes but not, it is thought, adequate in variety of type face or case, or in quality of print, for direct photo-litho reproduction for publication purposes. Many of the tabulations in the 1963 Tables Volumes have, accordingly, been produced on a system of card-controlled typewriters which is auxiliary to the computer. Data to be printed are supplied to the system's control unit in the form of punched cards produced by the

computer, which simultaneously produces a printed copy. The typewriter outputs in roman, italic and bold styles are combined by a manual operation into a master copy which can be sent to the printer. For certain serial tables and others, the intervention of the computer is unnecessary. They are produced either by punching cards for direct insertion into the typewriter system or by direct typing on a compatible typewriter used independently.

Other statistical returns. The foregoing description deals with the main flow of data on births, marriages and deaths from which most of the tabulations appearing in the three volumes of the *Statistical Review* are produced, either directly through the computer system and its auxiliary machines or indirectly after some clerical compilation. It does not deal with those tabulations which derive from sources outside the registration service, e.g. notifications of infectious diseases, returns of which are provided by medical officers of health, or parliamentary and local government electors, returns of which are provided by local electoral registration officers and clerks to local authorities. Nor does it deal with the production of estimates of population which appear in the *Statistical Review* and which are of course used in the compilation of the rate tables.

But mention should be made of the separate flow of vital statistics data from registrars of births and deaths in the form of weekly numerical returns. These provide some of the early figures published in the *Weekly* and *Quarterly Returns*. As publication of the *Weekly Return* normally takes place on the Saturday following the week to which the *Return* relates, these figures are of registrations only, uncorrected for transferability or the results of medical enquiries, etc., and they are therefore provisional. For the purpose of producing an early quarterly figure for England and Wales these weekly figures are accumulated in running totals. The figures appearing in Table III of the *Weekly Return* (deaths in London classified by cause and age) and Table VI of the *Quarterly Return* (deaths in England and Wales by cause and sex in each quarter) are, however, derived from the particulars of individual deaths and not from the registrars' weekly statistical returns.

Changes in statistical methods

The timetable for converting from punched-card methods to computer methods for the production of the *Statistical Review* and related tabulations was determined by several factors, notably the availability of staff and accommodation at a new location, the training of this staff in statistical coding and punching, and the desire to cause least disturbance to the processing, the efficacy of which depends very much on a regular flow of material into and out of the statistical sections. It was decided that for the most part the tabulations for 1963 would be produced on the same lines as before, consideration of any radical alterations made possible by the new system, or thought desirable for other reasons, being deferred until a comprehensive systems analysis could be carried out. The possibility of unforeseen difficulties in any radically changed methods was also a cogent factor, and in the result has been seen to justify the decision.

At the same time, certain changes in processing methods were adopted or were indeed almost implicit in the use of a computer. (For this reason the data for the first quarter of 1963 were compiled both by the punched-card installation and by the computer, and a close comparison was made between the results. This also served as a further check on the computer programming.) It may be useful to

describe the main changes a little more fully, with particular reference to the effect on the quality of the resulting statistics.

In the first place a much more detailed and sophisticated checking of characteristics in records in relation to each other became possible. Each record is examined individually by the computer and a number of tests are applied right at the start of processing. Previously, checking could not be done in such detail and mostly took the form of visual searching for inconsistencies in a completed tabulation. Certain errors might not have been detected until late in processing and would have entailed correction to tables produced earlier. Secondly, assignment of specific values to "not stated" items in individual records, as referred to earlier, replaces the former method of "rateable distribution", i.e. distributing the numbers of such cases over tabular cells in proportion to the numbers in these cells. This method involved much cross checking from table to table to avoid inconsistencies.

Another difference brought about by the new facilities is that to some extent computer processing means that more of the work can be spread out through the year. As mentioned, certain jobs such as sorting, filing and summary tabulation are now done throughout the twelve month period in contrast to the older methods in which punched cards were accumulated until the end of the year with little processing apart from some checking and intermediate counts. The punched cards had then to be used in a series of sorting and counting processes to produce all the counts necessary for the annual tables.

Advantage has been taken of the performance of the computer in its most widely recognised role of a high speed calculating machine to introduce new work with the emphasis on arithmetical calculation rather than on filing, counting and printing. Such work includes the surveillance of congenital malformations and infectious diseases for which rates, standardised ratios and deviations from the average are calculated for each condition in each county and county borough. As well as indicating the areas and conditions with significantly high rates by means of calculations of the deviations, the computer can sort them to order according to the size of the deviation, and print out results only where the deviations exceed pre-determined values, thus saving scrutiny of all the results. The relatively large amount of calculation combined with the need for quick results means that this type of job is essentially one for the computer and could not have been done by earlier methods.

MARITAL CONDITION ESTIMATES

Estimates of the *total* population of England and Wales classified by sex, age and marital condition are available for each year from 1931. Since 1948 this classified estimate has been included in Part II of the *Registrar General's Statistical Review* where it at present appears as Table A3. Earlier estimates are included in the *Text (Commentary) Volumes* for 1938-1939, 1940-1945 and 1946-1950.

The first part of this present note describes how the marital condition estimates are prepared each year, using the mid-1963 estimate as an example, with an indication of where the information is not as full as is desirable and the methods used to overcome these deficiencies. The later part of the note describes the results of the comparison which was made between the mid-1961 marital condition estimate and the distribution of the enumerated 1961 Census population by sex, age and marital condition.

Methods used in marital condition estimate

At present Table A3 is published by five year age-groups up to 70-74 and then 75 and over for each marital condition (i.e. single, married, widowed, divorced). Estimates of the population according to whether they were married, widowed or single are available for the years 1931* to 1960. In these estimates the divorced were included among the widowed. After the 1951 Census separate estimates were made for the divorced but these were not published separately, being included in a combined widowed and divorced group. With the increasing interest in data for the divorced it was decided to publish separate figures for this group and this has been done since 1961. The separate identification of the divorced led to some revision of the methods hitherto used, which were too crude to permit the identification of this small group with sufficient accuracy. Even now the numbers in this condition are small, as are the widowed at younger ages, and the relative accuracy of these estimates is less than for more numerous groups. Annual changes in the numbers in these groups or in rates which are based on them should always be regarded with caution.

Essentially the marital condition estimate, like the other population estimates prepared by the Registrar General, is based originally on census results. Although census figures may have to be adjusted for mis-statement in the light of information obtained from other sources, without the census it would be impossible to make these estimates. The process of making an annual estimate is only a series of adjustments for the events which have taken place during the preceding twelve month period.

The annual estimate is made with reference to the middle of each year, for example 30th June 1963. This provides an appropriate denominator for calculating calendar year rates. An alternative method of achieving a similar result would be to calculate the estimate of the population for the 31st December and use an average of two successive end-year estimates as the denominator. In some ways an end-

*Estimates of married and non-married women for the years 1912 to 1930 are published in Table 1 of the Appendix to the 1938-39 *Text Volume*.

year estimate is easier to produce because special mid-year to mid-year tabulations are not needed but on the other hand the mid-year estimate is available sooner.

In the following sections on the elements in the mid-year estimate it is assumed that the previous estimate (or census figures adjusted to mid-year) is available and it is necessary simply to move this on for a further twelve months. Unless otherwise stated all data are available in single years of age and all calculations are made on a single year of age basis. It must be emphasised that the single year figures may be less reliable than the five-year figures. The estimate for mid-1963 is used as an illustrative example.

Ageing

Given the estimate for mid-1962, the first step was to make everyone a year older and introduce the 14 year olds from the mid-1962 sex and age estimate to form the 15 year olds in the mid-1963 estimate. At this step no mortality is assumed. In practice, as the whole estimate is adjusted by adding or subtracting a set of differences to or from the previous year's estimate, the difference between, for example, the current year's 15 year olds and those of the previous year is added to or subtracted from the previous year's number as indicated in the 'Net age transfer' section of Table C1. This table reproduces a section of the summary working sheet for the mid-1963 estimate.

New marriages

Those married between mid-1962 and mid-1963 were then added to the married population and subtracted from the other marital conditions as appropriate. Information is available in a similar form to that appearing in Table G of Part II of the *Statistical Review* but for the two half years 1st July to 31st December 1962 and 1st January to 30th June 1963. However, the marriages are classified according to the age of parties at the time of the marriage. It was necessary to estimate their age at 30th June 1963 and this estimate is made by mathematical interpolation with different coefficients being applied to the marriages in the two half years*.

This method is applied to first marriages under the age of 50, i.e. where the person concerned was a bachelor or a spinster before they married, and to re-marriages of widowed or divorced persons. The exception to this procedure was for first marriages of people aged 50 or over. For this group where the number of marriages is falling only slowly with advancing age, marriages at age x in the first half of 1963 plus the marriages at age $(x-1)$ in the second half of 1962 were taken as the estimate during the period of people aged x at 30th June 1963. There is a further adjustment to remarriages of divorced persons. As discussed below in the

*For ageing marriages the following set of coefficients are applied, where x is the age to be transferred:

Age	Marriages in second half of 1962	Marriages in first half of 1963
$x - 1$	-0.0469	+0.0365
x	+0.7804	+0.2396
$x + 1$	+0.0365	+0.0469

*For future estimates coefficients will be used throughout.

Table C1. The elements in the marital condition estimate, extract from summary working sheet, mid-1963, England and Wales

Females

(Figures in thousands)

Age	Mid-1962 estimate					Net age transfer					Net migration gain or loss					New marriages			Widowhoods	Divorces
	Total	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced	Spinsters	Widows	Divorced		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
14	382.94	382.94	-	-	-	-43.13	-43.13	-	-	-	+0.20	+0.20	-	-	-	-	-	-	-	-
15	426.07	426.07	-	-	-	+99.84	+102.21	-2.37	-	-	+0.20	+0.20	+0.00	-	-	2.84	-	-	-	-
16	326.23	323.86	2.37	-	-	+3.89	+14.53	-10.63	-0.01	-	+0.25	+0.24	+0.01	-	-	10.14	-	-	0.01	-
17	322.34	309.33	13.00	0.01	-	-7.49	+13.31	-20.78	-0.02	-	+1.30	+1.20	+0.10	-	-	22.05	-	-	0.02	-
18	329.83	296.02	33.78	0.03	-	+7.52	+41.97	-34.43	-0.02	-	+1.50	+1.31	+0.19	-	-	36.24	0.01	-	0.04	0.01
19	322.31	254.05	68.21	0.05	-															
20	298.85	195.14	103.72	0.07	0.02	+23.36	+58.91	-35.51	-0.02	-0.02	+1.60	+1.26	+0.34	-	-	43.70	0.01	0.01	0.07	0.04
21	278.09	137.31	140.43	0.14	0.21	+20.86	+57.83	-36.71	-0.07	-0.19	+1.50	+1.06	+0.44	-	-	43.42	0.02	0.05	0.08	0.18
22	291.22	107.64	182.80	0.20	0.58	-13.13	+29.67	-42.37	-0.06	-0.37	+1.40	+0.89	+0.51	-	+0.00	36.19	0.03	0.18	0.11	0.40
23	298.09	85.89	211.03	0.27	0.90	-6.87	+21.75	-28.23	-0.07	-0.32	+1.30	+0.73	+0.57	-	+0.00	26.42	0.06	0.38	0.14	0.74
24	298.41	68.60	228.35	0.44	1.02	-0.32	+17.29	-17.32	-0.17	-0.12	+1.30	+0.66	+0.64	+0.00	+0.00	19.59	0.08	0.60	0.14	1.07

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Age	Deaths					Net movement mid-1962 to mid-1963					Mid-1963 estimate					Mid-1963 estimate 5 year age-groups rounded to 1 decimal place				
	Total	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced
						(6)+(11)	(7)+(12)	(8)+(13)	(9)+(14)	(10)+(15)	(1)+(26)	(2)+(27)	(3)+(28)	(4)+(29)	(5)+(30)					
						-(21)	-(16)	+(16)+(17)	-(17)+(19)	-(18)+(20)										
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
14																				
15	0.11	0.11	-	-	-43.04	-43.04	-	-	-	-	383.03	383.03	-	-	-					
16	0.13	0.13	-	-	99.91	99.44	0.47	-	-	-	426.14	423.30	2.84	-	-					
17	0.11	0.11	-	-	4.03	4.52	-0.49	-	-	-	326.37	313.85	12.51	0.01	-					
18	0.12	0.11	0.01	-	-6.31	-7.65	1.34	-	-	-	323.52	288.37	35.12	0.03	-					
19	0.13	0.12	0.01	-	8.89	6.92	1.95	0.01	0.01		331.20	280.97	70.16	0.06	0.01					
											1,790.26	1,669.52	120.63	0.10	0.01	1,790.3	1,669.6	120.6	0.1	-
20	0.13	0.10	0.03	-	24.83	16.37	8.41	0.04	0.01		323.78	211.51	112.13	0.11	0.03					
21	0.15	0.11	0.04	-	22.21	15.36	6.92	-0.01	-0.06		300.30	152.67	147.35	0.13	0.15					
22	0.12	0.07	0.05	-	-11.85	-5.70	-6.02	0.02	-0.15		279.37	101.94	176.78	0.22	0.43					
23	0.14	0.07	0.07	-	-5.71	-4.01	-1.75	0.01	0.04		292.38	81.88	209.28	0.28	0.94					
24	0.13	0.06	0.07	-	0.85	-1.70	2.31	-0.11	0.35		299.26	66.90	230.66	0.33	1.37					
											1,495.09	614.90	876.20	1.07	2.92	1,495.1	614.9	876.2	1.1	2.9

Note: The estimates from which these extracts have been taken are being revised.

section dealing with the comparison with the 1961 Census results, there is reason to suspect that some divorced persons who remarry incorrectly describe themselves as single. To allow for this the stated numbers of divorced men who remarry is increased by 9 per cent and of divorced women by 6 per cent. This adjustment is balanced by a similar reduction in the number of first marriages.

Divorces

Those divorced between mid-1962 and mid-1963 were subtracted from the married population and added to the divorced. Their age at 30th June 1963 was estimated in the same way as that used for marriages, the same coefficients being used. Since 1962 divorces have been tabulated by the age of each party in single years, this was formerly available only in five-year age-groups.

Widowhoods

Table SS(a) in Part II of the *Statistical Review* gives the cross classification of deaths of married men by age and the ages of their widows. Similar figures were obtained for each quarter and these were added to give the numbers in the relevant mid-year to mid-year period, for five year age-groups only. These five-year figures were sub-divided into single years of age by using a distribution of widows by single years of age from a mid-year to mid-year version of Table SS(b). This distribution then had to be aged to give the ages as at 30th June 1963. This was done in a manner similar to that used for marriages and divorces.

Exactly the same procedure applied for obtaining the estimate of the number of widowerhoods between mid-1962 and mid-1963 and their age distribution.

Deaths

Deaths were available by age and marital condition for each quarter separately. These were adjusted to convert to age at 30th June 1963 by taking the deaths at age x in the first half of 1963 plus the deaths at age $(x-1)$ in the second half of 1962 as an estimate of the deaths between mid-1962 and mid-1963 of people who would have been aged x at 30th June 1963 had they survived (the same method as was used for first marriages at ages over 50). These estimates were made separately for each marital condition.

Migration

Little is known about the personal characteristics of immigrants and emigrants and only very recently has some partial information on their age and marital condition become available from the Central Office of Information International Passenger Survey. Until this information became available the marital condition of migrants from outside the United Kingdom was estimated by using 'standard migration rates' which had been derived from estimates of gross migration in the 1948-1951 period derived from the National Registration system which ended in 1952. These 'standard migration rates' gave the proportion of sex, age, marital condition groups of the population who emigrated and immigrated. The figures thus obtained were adjusted to agree with controls for age-groups estimated in the course of producing the

annual estimate by sex and age. These controls were derived separately for immigrants and emigrants. An estimate of the marital condition of migrants from other parts of the United Kingdom was obtained by dividing the figures for net movement to or from the rest of the United Kingdom in the same proportions as the marital condition estimate of the previous year. For the mid-1963 estimate when only net figures of all migration were derived in working the estimate by sex and age an arbitrary assignment was made to marital condition.

For the mid-1964 estimate (and in the revisions of the 1961 and later estimates in the light of the 1961 Census results) the marital condition of migrants to and from places outside the United Kingdom will be based on the information obtained in the International Passenger Survey.

Aggregation of the elements

Once the different elements had been estimated, the marital condition estimate for mid-1963 was obtained by applying them as changes to the mid-1962 estimate. A section of the final summary sheet where this was done is shown in Table C1. As already noted the section headed 'Net age transfer' ages the mid-1962 estimate by one year. To this aged population was added the gain or loss by migration between mid-1962 and mid-1963. The numbers appearing in the 'New marriages' section were added to the married and subtracted from the single, widowed or divorced as was appropriate. (The marital condition estimate makes no attempt to divide the married into those in their first marriage and those who are remarried.) The numbers appearing in the 'Widowhoods' and 'Divorces' sections are added to the widowed and divorced respectively and subtracted from the married while the 'Deaths' are subtracted from their respective marital conditions. The section 'Net movement mid-1962/63' brings all the adjustments specified together into one figure which is added to or subtracted from the mid-1962 estimate to produce the mid-1963 estimate. As the figures for age transfers, migration and deaths for all marital conditions combined agree with those appearing in the relevant working sheets for the sex and age estimate the two estimates must be consistent.

Comparison with the 1961 Census and subsequent adjustments

The mid-1961 estimate was basically obtained by moving on in the way described from mid-1960 but the preliminary census figures for males and females were taken into account when making this estimate. A classification of the census figures by age or marital condition was not then available. When the final results from the 1961 Census became available a comparison was made between a proportional distribution derived from these figures and one based on the mid-1961 marital condition estimate.

Some of the differences which were found were due to the difference between census date (23rd April) and mid-year (30th June). Despite this several general discrepancies were apparent from this simple comparison of which Table C2 shows the results.

Table C2. Proportional differences per ten thousand between the mid-1961 estimated population and the 1961 Census enumerated population, by sex, age and marital condition, England and Wales

Note: These figures show mid-year estimate proportion minus census proportion

Males				Age	Females			
Single	Married	Widowed	Divorced		Single	Married	Widowed	Divorced
-40	20	4	16	15 and over	-69	62	-6	13
-	-	-	-	15	-	-	-	-
2	-2	-	-	16	9	-	-	-
3	-3	-	-	17	7	-7	-	-
4	-4	-	-	18	-	1	-1	-
14	-14	-	-	19	7	-7	-	-
2	-2	-	-	15-19	2	-2	-	-
20	-20	-	-	20	-83	59	-	4
58	-59	-	1	21	-88	81	-	7
-18	16	-	2	22	-111	105	-3	9
13	-12	-	-1	23	-106	104	-	1
-37	39	1	-3	24	-100	109	-2	-7
11	-10	-	-1	20-24	-109	107	-1	3
-73	72	-1	2	25	-124	136	-2	-10
-90	85	-	7	26	-185	175	-5	-5
-160	149	-1	12	27	-181	184	-8	3
-135	117	1	17	28	-171	165	-6	12
-47	28	-	19	29	-188	179	-11	20
-104	92	-	12	25-29	-168	169	-6	5
-124	108	-1	17	30	-248	280	-25	13
-86	83	2	21	31	-177	192	-29	14
-220	200	3	17	32	-167	184	-33	18
-253	230	3	20	33	-150	169	-36	17
281	288	1	22	34	-183	181	-37	19
-199	177	2	20	30-34	-181	197	-32	16
-248	228	1	21	35	-136	154	-32	14
-203	181	1	21	36	-97	114	-33	18
-158	140	-2	20	37	-101	100	-34	15
-140	123	-2	19	38	-72	82	-30	10
-61	41	-2	22	39	-62	80	-28	8
-161	141	-1	21	35-39	-89	107	-31	13
-48	25	-2	23	40	-84	98	-23	9
63	-94	4	27	41	-35	40	-12	7
-9	-13	1	21	42	-81	82	-5	4
-20	-8	2	26	43	-114	110	-8	12
-	-30	2	28	44	-123	113	-1	11
-3	-25	2	26	40-44	-85	86	-9	8
-37	7	-2	32	45	-96	115	-33	14
-21	-9	-4	34	46	-24	57	-45	12
-32	-5	-	40	47	8	18	-37	11
-83	59	-11	35	48	17	12	-43	14
-93	77	-9	25	49	28	-3	-45	20
-54	27	-6	33	45-49	-11	37	-40	14
-147	139	-5	13	50	25	17	-59	18
-80	58	7	15	51	51	-13	-88	28
-68	41	12	15	52	47	-1	-75	29
-24	-7	16	15	53	18	-	-91	35
-28	-21	27	22	54	-12	47	-73	38
-70	42	12	16	50-54	27	14	-70	29
8	-52	22	22	55	-41	-7	12	36
2	-44	16	26	56	-83	4	23	36
31	-90	29	30	57	-84	4	41	19
-15	-38	19	34	58	-41	-1	22	20
-86	31	20	35	59	-59	38	11	10
-11	-41	22	30	55-59	-53	5	24	24
-140	140	-27	27	60	-32	99	-77	10
-54	59	-25	20	61	-32	105	-82	9
-51	68	-32	15	62	-63	118	-85	10
-62	95	-24	11	63	-58	86	-52	15
-76	64	4	8	64	-25	88	-89	8
-85	84	-14	15	60-64	-41	90	-60	11
-81	34	39	8	65	-3	17	-25	11
-34	-47	74	7	66	5	-23	5	13
-24	-72	89	7	67	-34	-37	57	14
-30	-76	101	7	68	-49	-102	135	16
-22	-49	56	15	69	-59	-136	179	17
-39	-42	72	9	65-69	-27	-58	71	14
-50	72	-42	20	70	-70	3	48	19
-19	105	-107	21	71	-88	-28	97	19
-28	173	-172	25	72	-85	21	23	21
-39	233	-222	28	73	-73	82	-8	17
-22	315	-320	27	74	-78	119	-80	19
-32	170	-162	24	70-74	-75	33	23	19
97	-238	131	10	75 and over	-61	-19	68	12

Married and single

Firstly, there was in general a larger proportion married and a smaller proportion single in the mid-1961 estimate than in the census count. This applied particularly to men aged 25-39 and women aged 20-44. At some individual ages both sexes showed differences of 20 per cent or more. Because of the larger numbers of married people in the ages concerned the proportional effect of the error in the married was much less, about 3 per cent. This difference seemed likely to have risen from the incorrect assignment of migrants to the different marital condition groups during the intercensal period, particularly in the later part of the period when migration was relatively high. This is discussed further below.

Divorced

Secondly, there was a larger proportion of divorced in the mid-1961 estimate than in the census count. This applied to both men and women. For men the difference was about 30 per cent at ages 27 to 31, falling irregularly to the 50-54 age-group and then increasing to reach 40-50 per cent in the 70-74 age-group. The proportional errors for women were less, being about 15 per cent at ages 30 to 34, falling to about 5 per cent at ages 39 and 40 and thereafter tending to rise with increasing age to about 30 per cent at ages 70-74. As will be shown later (see page 24) there are grounds for regarding the estimate figures as more reliable than the census figures in this instance, though a contributory factor is that the correction for understatement of divorced condition at re-marriage used since 1951 is now believed to have been too small.

Widowed

The third main discrepancy was in the proportion widowed. The differences were trivial for men under age 45 and for older men showed a peculiar pattern of alternating excesses and deficiencies in age-groups. Between ages 55 and 64 the differences ranged between 3 and 7 per cent of the estimate figures but were slightly higher at older ages. For women aged over 55 the pattern of excesses and deficiencies was similar but less marked to that found for men but for women aged 25-39 there were some large differences. In the 30-34 age-group the numbers enumerated as widowed in the census were more than double the numbers appearing in the mid-1961 estimate. There is little factual evidence to throw light on these differences but it seems plausible that the estimate figures were more reliable than the census figures. There may well have been a tendency for single and divorced women enumerated with (illegitimate) children to be returned in the census as widowed. There was no evidence to support this hypothesis from the post-enumeration survey held after the 1961 Census but such a deliberate type of error would be unlikely to be revealed in such a survey where the approach was a re-interview of the respondents.

Understatement of divorce

A summary of the components which produced the mid-1961 estimate of the divorced population were as follows:

(Figures in thousands)

Component	Males	Females
Estimated number of divorced persons at 1951 Census (adjusted for understatement)	87	139
Divorces 1951-1961	+269	+269
Remarriages of divorced persons (registrations)	-206	-197
Deaths of divorced persons (registrations)	-13	-10
Estimated net gain from migration	+1	+1
Divorced as projected to 1961 Census	138	202
Divorced as enumerated at 1961 Census	94	170
Divorced as projected after allowing for understatement of deaths	132	196

It seems that there is a considerable understatement of divorced marital condition at death registration. A comparison of the death rates for divorced persons with those for single and widowed persons of the same age indicated that there might be about 45 per cent understatement for men and about 60 per cent for women. These percentages are based on no more than an assumption that the age-death rates for the non-married groups (single, widowed and divorced) are likely to be similar and the figures quoted can be little more than an estimate of their order of magnitude. Application of these corrections gives a revised estimate of intercensal deaths of 18 thousand divorced men and 16.5 thousand divorced women. These changes make only a small contribution to the discrepancy as is to be expected with the young age structure of the divorced population. The revised number of divorced as projected to 1961 Census is 132 thousand men and 196 thousand women.

Because migration of divorced people is almost certainly a very small factor the remaining understatement of divorced condition seems likely to arise from two main sources. These are understatement at remarriage and understatement at the census. The discrepancies found could have arisen from any combination of understatement ranging from 39 per cent for men and 15 per cent for women at the census with no mis-statement at remarriage, which represent one extreme, to 18 per cent understatement for men and 12 per cent for women at remarriage and a negligible amount at census. Which combination is assumed must be largely a matter of judgement. There is likely to be much more incentive to supply false information at remarriage than at the census where there is little at stake; on the other hand it is easier to succeed in giving false information at the census. The balance would seem to lie in favour of a conclusion that the probability of understatement at the census is much higher than at remarriage, and this has been assumed for future marital condition estimates based on the 1961 Census.

Examination of the discrepancies at different ages indicated that the amount of understatement was higher for men and women under age 25 and lower for women in the 25-44 age-group. It has been assumed that for men under age 25 the mis-statement at census was 40 per cent (and hence 20 per cent at remarriage), that for women under age 25 it was 20 per cent at census (10 per cent at remarriage) and for women aged 25-44 it was 5 per cent at the census ($2\frac{1}{2}$ per cent at remarriage).

This discussion has led only to assumptions and not to firm conclusions because we are dealing with two unknown elements of mis-statement whose total effect can be deduced by combining information from two successive censuses with registration information for the intervening period but whose individual values can be estimated only by subjective judgement.

Marital condition of migrants*

The main difference between the 1961 Census results and the mid-1961 marital condition estimate which remains to be discussed is the excess of married men and women in the estimate compared with the census count. This excess appears to be at the expense of the single and to be independent of the understatement of the divorced already discussed. The source of such errors is almost certainly the migration element in the marital condition estimate.

Migration has been the weakest element in the marital condition estimates because of the almost complete lack of data. The marital condition of migrants has been estimated by the use of standard migration rates as already described. It had been clear for some time that these rates were becoming unsuitable for use in the marital condition estimate when worked to single years of age and with migration playing a much more important part than in the early 1950s. The lack of data has prevented any realistic revision of these rates up to the present. The information now being obtained from the International Passenger Survey provides at least a broad classification by sex, age and marital condition. Information to supplement this will be available from the 10 per cent sample information obtained at the 1961 Census on the characteristics of migrants in the year before census date. This last source suffers from the drawback that the information is restricted to immigrants into England and Wales in the year, no information being obtainable from this source on people who have left the country in the year before census date.

Some experiments were made in re-estimating the marital condition of migrants since 1951 assuming that for each year of this period they had the proportional marital condition distribution of the 1963-1964 period derived from returns of the International Passenger Survey. It was assumed that the numbers of migrants of a given age remained unchanged, only their marital condition being revised. This exercise was carried out for men aged 28 and 39 in 1961 and women aged 27 and 29 in 1961. (The experiment could be carried out only for the younger ages for which estimates by single years of age had been made throughout the period.) The results are shown overleaf and do not show a completely consistent pattern:

*For fuller discussion of migration see page 28.

Marital condition of net migrants, selected ages, 1951-61

(thousands)

Sex and age, as at 30th June 1961	Condition as originally estimated				Condition as estimated using 1963-64 data			
	Total	Single	Married	Widowed and divorced	Total	Single	Married	Widowed and divorced
Males 28	17.6	11.8	5.7	0.1	17.6	11.9	5.6	0.1
Males 39	-1.2	-1.2	0.0	0.0	-1.2	0.5	-1.3	-0.4
Females 27	8.8	6.6	2.2	0.0	8.8	6.8	1.6	0.4
Females 29	5.4	2.8	2.6	0.0	5.4	4.7	0.8	-0.1

For men aged 39 the effect was to increase the single (and reduce the married) enough to eliminate almost the whole of the discrepancy between the census results and the mid-1961 estimate of single population. In contrast the difference for men of each status aged 28 in 1961 was negligible. For single women aged 27 there was a slight reduction in the discrepancy and for those aged 29 about half the discrepancy was removed by this adjustment. It may be as wrong to assume that the 1963-64 pattern obtained throughout the whole period as to assume the continuation of the pre-1952 pattern. Although the evidence is sparse it tends to support the hypothesis that the married-single differences are due to migration and that the census distribution should be accepted rather than that in the mid-1961 estimate.

Summary

This discussion has attempted to reconcile the results of the 1951 and 1961 Censuses with the available information on deaths, marriages and migration in the intervening period. Five sets of adjustments are needed to achieve the reconciliation:-

- A. Adjustments to intercensal registration and migration estimates to allow for:-
 1. An incorrect assignment of migrants between married and single.
 2. An assumed understatement of divorce at remarriage registration.
 3. An assumed understatement of divorce at death registration.
- B. Adjustments to census figures to allow for:-
 4. An assumed understatement at census of the number of divorced people.
 5. An assumed overstatement at census of the numbers of widows aged 25-39.

The two sets of adjustments to the census figures were used, together with the graduated census sex and age distributions*, to produce a final census revised 1961 marital condition estimate. Using this revised 1961 estimate as a basis the marital condition estimates for 1962 and 1963 have also been re-worked by the method already noted and will be published as an appendix to the 1964 edition of Part II of the *Statistical Review*. When available these should be used in preference to the unrevised versions which have already been published for 1961, 1962 and 1963. The 1964 and later marital condition estimates will be based on the 1961 Census.

*For an explanation of 'graduated census population' see page 42.

M I G R A T I O N

For well over a century prior to the nineteen-thirties and for the first decade after the second World War, England and Wales was cushioned against the full impact of the natural increase of her population by net outward migration. Between 1931 and 1946, however, this trend was reversed and since about 1955, the net flow has again been inward. Scotland and Northern Ireland, on the other hand, have throughout had a net outward balance of migration overseas (as well as sustained net loss of population to England and Wales). Consequently figures for the United Kingdom as a whole conceal the extent of the variations in England and Wales, just as the figures for England and Wales as a whole will conceal the full significance of net immigration in particular areas.

A comparison of annual net migration into and out of the total population of England and Wales with the corresponding net figure for the United Kingdom as a whole for the calendar years around 1963 will illustrate this point. In thousands, the figures are:

	<i>England and Wales</i>	<i>United Kingdom</i>
1962	+ 177	+ 136
1963	+ 55	+ 10
1964	+ 34	- 17*

Substantial immigration from outside what is now the United Kingdom is not, of course, a novelty for England and Wales. Apart from even earlier instances, there was in the nineteenth (and to a lesser extent the early twentieth) century, alongside massive emigration to the Commonwealth and the United States, a very significant intake of newcomers from Europe and from what is now the Republic of Ireland, as well as from the rest of the United Kingdom. The 1931-46 change from the traditional role of a net exporter of population to that of a net importer was in part due to the intake of refugees from the Continent, in part to a decline in emigration and a rise in the number of returning former emigrants in the earlier 'thirties and in part to the virtual cessation of emigration during the war years. After the War the traditional pattern was resumed to some extent until overseas Commonwealth immigrants, mainly from the West Indies, India and latterly especially from Pakistan, but also from Cyprus, Malta and elsewhere, came here in accelerating numbers. In spite of the operation of the *Commonwealth Immigrants Act* from 1st July 1962 and in spite of the stepping-up of the emigration of United Kingdom-born citizens from England and Wales, the net import of migrants into England and Wales has continued beyond 1963, alongside a high level of natural increase.

It would appear possible, at the time of writing, that for 1965 the net outward balance for the United Kingdom may be smaller and the net inward balance for England and Wales larger than in 1964. Even if this were not so, it would seem

*Net outward balance

desirable to point out that a nil balance of migration has no intrinsic merit, such as is implied by a balance of payments, balance of power or balance of nature. Any value judgment on the degree of net immigration or emigration to be regarded as satisfactory at any given time must depend on an amalgam of considerations external to the figure itself.

So far as a comparison of past compared with present experience and future expectation enters into this, it may be noted that the net effect of migration was to remove 2.1 million of the natural increase of the population of England and Wales between the 1871 Census and that of 1931. But between then and 1951 we retained our full natural increase of 3.3 million over the twenty years (averaging about 165 thousand a year) and added a further 758 thousand by migration. Although there was renewed net emigration in the period 1946-54, net immigration added 1.4 million to our full natural increase over the 32 years from 1931 to 1963.

The mid-year to mid-year estimates of migration into and out of the total population of England and Wales in recent years are set out in Table C3.

Table C3. Net migration into or out of the total population of England and Wales. (Estimated annual average mid-1951 to mid-1955 and mid-1955 to mid-1959; then annually from each mid-year to 1964)

(Figures in thousands)

	Net overseas migration	Net migration within United Kingdom	Total net migration
Annual average			
Mid-1951 to mid-1955	- 33	+ 17	- 16
Mid-1955 to mid-1959	+ 1	+ 21	+ 22
Year ending 30th June			
1960	+ 84	+ 24	+ 108
1961	+ 129	+ 29	+ 158
1962	+ 195	+ 30	+ 225
1963	+ 18	+ 32	+ 50
1964	+ 21	+ 31	+ 52

The impact of migration during the year ending 30th June 1963 on the sex and age structure of the *total* population of England and Wales was as follows:

Table C4. Change in sex and age structure of the total population of England and Wales by migration, 1st July 1962 to 30th June 1963

(Figures in thousands)

Males	Age-group	Females
+ 1	0-14	+ 1
+ 11	15-24	+ 11
+ 16	25-34	+ 4
+ 7	35-44	- 2
+ 1	45-64	-
-	65 and over	-
+ 36	All ages	+ 14

Basis of migration estimates

In intercensal estimates of the three separate populations of England and Wales (defined in Explanatory Note 2 on page xv and referred to on page 39 of this volume), it is the *total* population of the preceding estimate which is first modified, by the natural change brought about by births, deaths and the passage of time and then by the movement of residents here away from this country and of former residents elsewhere into this country. This has the advantage over starting with the simple *de facto* (or home) population in not including deployment of our Armed Forces as migration. It is moreover in accordance with international convention to use this 'modified *de facto*' population when supplying population data (whether census or estimates) to the United Nations Population Commission. It is important to stress this conformity with international requirements because it has sometimes been suggested that we were exaggerating 'true' immigration "by international definition". This mistaken view may arise from the complementary convention that in studies of migrants the standard should be to regard as an immigrant a person who having resided elsewhere for at least the previous year is entering this country for one year's stay or longer and to regard as an emigrant a resident of this country for at least the past year who is moving elsewhere for a year or more. The regulations of many countries on long-term entry make this criterion simple to apply and we ourselves have no reason to doubt the *outward* figures based on enquiry (at departure) of intention. But neither aliens nor Commonwealth citizens coming here need to have any intention of remaining here for any specific length of time in order to be here perfectly legally a year later. Nevertheless, the method described below as available for the year 1964 and since has enabled us to analyse the data on intending migrants in such a way that the gap between intentions and performance in immigrants on alien and Commonwealth passports can be identified and made good.

In theory the migration element in the international conventional total could take account of any change in the relative visitors/absentees balance. But each census is taken at a date chosen to avoid seasonal complications; and though June 30 and December 31 - to which our intercensal estimates usually relate - are

in fact dates subject to abnormal seasonal movement, we are careful to treat them notionally, ignoring this peculiarity as far as possible, thereby making estimated figures comparable with census figures. So that in fact our estimates do take as the migration element actual (as opposed to intended) movement for a year or more as the criterion for inclusion.

Pre-1961 Census method

Before 1939 the count of intending migrants on the long sea routes and the very complete data on the entry and whereabouts of aliens gave enough information for estimating the number, sex, age, etc. of migrants from/to beyond the British Isles to/from England and Wales. From 1939 until 1952 the National Register was available for the estimation of both internal and external migration. Its abolition as a record of changed address and some later curtailment of information on the whereabouts of aliens, with a complete absence of information about migrants as such travelling by air or the short sea routes (save for inward data on admission of aliens) raised serious difficulties over migration estimation at a time when a change-over from net outward to net inward movement seemed likely to be occurring. Every scrap of available information was anxiously examined, subjective judgment was far too much involved for comfort, and the very rough check that the finally revised cumulative Passenger Balance provided was called into service to ensure that the cumulative migration estimates were not going ridiculously far astray.

The most rewarding approach, on the types of information available in varying degree for the different classes of migrant was to use the concept of net intake of aliens (aliens in *minus* aliens out), net intake of Commonwealth citizens (from data from the older Commonwealth countries and figures of movement on newer Commonwealth countries' passports which fortunately began to be available), net intake from traffic between the U.K. and Republic of Ireland, net intake into England and Wales from the rest of the United Kingdom, net emigration on U.K. passports (i.e. emigration offset by returning former emigrants, etc.). The success in fact achieved in estimating intercensal migration (so far as number of persons were concerned) was a result of co-operation between the General Register Office, the secretariat of the Oversea Migration Board, the Home Office and the London representatives of the older Commonwealth countries and of the Republic of Ireland. For intra-U.K. migration, statistics of change of doctor in the National Health Service were the guide.

This method of estimating by net intake or outflow has continued since the 1961 Census, when the success of the approach to each of these balances could be assessed. On sex and age various *ad hoc* surveys have also been of use. Since mid-1962 the full Commonwealth passport holders' figures derived as a by-product of the *Commonwealth Immigrants Act* have been available. But, as the migration figures quoted above show, the really significant intake of immigrants from the new Commonwealth countries was in the fifteen months after the 1961 Census and to some extent since then. The limitations of data confined to the long sea routes will be appreciated when it is pointed out that they could show a net *outward* balance of West Indian migrants by these routes for a period of significant net intake from this source. Until the 1966 Census we shall have no means of assessing the reliability of our post-1961 assumptions on the sex, age and marital condition of migrants before 1964.

In 1963, the final year before the abolition of the statutory enquiry on the long sea routes, data on the air routes and short sea routes from the International Passenger Survey, which had been building up since 1961, were available to supplement the long sea routes count and theoretically should have given adequate cover of intending migrants by all routes other than those between the United Kingdom and Republic of Ireland. The outward combined data did not conflict with what we learn from the main receiving countries. But the inward combined data were some 40 thousand short of the figure derived from the alternative sources we had used hitherto with confidence, after intercensal success.

In 1964 we had to rely entirely on the sample for the first time - for long sea and air routes and the short haul traffic. The difference between the sample figures of intending immigrants and our estimate of actual immigrants was only 12 thousand (compared with the 1963 shortfall of 40 thousand just mentioned). The outward figures again appeared satisfactory. The International Passenger Survey data showed the movement of intending migrants into and out of the United Kingdom during 1964 as follows:

(Figures in thousands)

	Inward	Outward	Net migration
On foreign passports	67.5	40	+ 27.5
On U.K. passports	71.5	202	- 130.5
On passports for other Commonwealth countries	73	30	+ 43
On all passports and on all routes except those between U.K. and Republic of Ireland	212	272	- 60

From Home Office data of actual admissions, we can correct the small difference between intending and estimated actual immigrants. We accordingly then have, as the estimated migration into and out of the United Kingdom for 1964 (by all routes except those between the U.K. and Republic of Ireland):

(Figures in thousands)

	Inward	Outward	Net migration
On foreign passports	72	40	+ 32
On U.K. passports	72	202	- 130
On passports of other Commonwealth countries	80	30	+ 50
Total	224	272	- 48

The estimated net gain to the United Kingdom's total population in 1964 from traffic between the U.K. and Republic of Ireland was 31 thousand. Hence the net United Kingdom balance of migration for that year was *minus* 17 thousand. With the net balance for Scotland and Northern Ireland with countries outside the United Kingdom at *minus* 26 thousand, the England and Wales balance with non-U.K. countries was *plus* 9 thousand, to which must further be added the net gain of *plus* 25 thousand from Scotland and Northern Ireland to give our balance with the rest of the world. It is useful to remember that the three separate net migration figures for England and Wales, Scotland and Northern Ireland which, when added together, give the United Kingdom net migration figure must be the balance between each constituent country and what is to it the rest of the world (i.e. including the other two U.K. countries). To translate the U.K. balance with the rest of the world into an England and Wales balance with the rest of the world, it is not sufficient merely to subtract Scottish and Northern Irish net migration with extra-U.K. countries.

It would appear that with intending migrants (other than between U.K. and the Irish Republic) sampled on long and short routes, sea and air, and with at least male/female/child subdivision for most of the supplementary data (on the Republic we have guidance from 1951-61 Census data and a post-censal survey), the estimation outlook perhaps from 1963, certainly from 1964, is extremely hopeful. There are, however, limits to what this continuing sampling of a traffic approaching 8 million passengers either way by voluntary interrogation at the point of arrival or departure, can reasonably be expected to provide.

The International Passenger Survey

The Social Survey (Central Office of Information) is commissioned by the Board of Trade to interview a stratified random sample of passengers entering and leaving the United Kingdom on all the principal air and sea routes (other than to the Irish Republic) to obtain information about international migration, tourism, and the contribution of "travel" expenditure to the international balance of payments.

At London Airport and Prestwick: nearly 7 per cent of outgoing and 4 per cent of incoming passengers on the long air routes are interviewed; 2 per cent in winter and 1 per cent in summer of short air route passengers are also interviewed there.

At smaller airports: the percentage sampled varies between half of one per cent and 4 per cent according to time and airport concerned. Sample weights are adjusted for known traffic densities and appropriate allowance made for traffic not covered.

On short sea routes: about 1 per cent of winter and half of one per cent of summer traffic is interviewed. In a two stage sample, cross-channel boats are sampled in proportion to the weight of traffic they are expected to handle and a predetermined number of passengers is interviewed on each selected boat.

On the long sea routes: every liner or other ship with more than 200 passengers arriving or more than 100 departing is covered and so is one out of every two other ships carrying more than 12 passengers on these routes. Nearly 7 per cent of the outgoing and 4 per cent of the incoming passengers are sampled.

A larger proportion of passengers leaving this country on the long sea and air routes is sampled in order to provide information about emigration from this country because of the disparity between the extensive factual data on inward movement and (apart from figures from the main receiving countries) the lack of data on outward movement. This information is used by the General Register Office in the analyses of intending migrants published annually in the *Registrar General's Statistical Review*, Part II and in the *Quarterly Return* for the third quarter.

In 1964 the sample consisted of 93 thousand successful voluntary interviews with incoming passengers, of whom 4,900 had the characteristic "intending immigrant". From this the information on the 212 thousand intending immigrants referred to previously is grossed up. There were 125 thousand successful voluntary interviews with outgoing passengers, of whom 12,750 had the characteristic "intending emigrant" and from this the information on 272 thousand previously mentioned is grossed up.

The results are a valuable guide to the distribution of actual immigrants and emigrants by sex, age-group, marital condition and other relatively large groupings, such as very broad occupational groups. The size of the sample is determined by what is practicable under all the circumstances. It was always appreciated that it would be an inadequate guide to any distribution of the relatively small groups going from or to Scotland, Northern Ireland or Wales, but would be a welcome development for information on the United Kingdom and England and Wales. Its limitations must be emphasised, for despite all warnings we still have enquiries as to the precise number of, for example, nuclear physicists emigrating. It can afford no reliable measurement of such items, at least until it has been going for a run of years. Still less can it supply the answers to such queries as how many doctors who might reasonably have been regarded as likely to practice in the United Kingdom have emigrated overseas. It cannot even ask the questions which would be necessary to provide the answer to such distinctions between one doctor and another. Interrogation at the point of arrival or departure has its limits.

The problem of how best to satisfy public interest in "margins of error" in the figures is being considered. There is no difficulty over the overall totals or any sub-totals where it is fair to assume that the proportion of migrants on the various routes is tolerably consistent with the proportions in the whole. Some simple classification of figures by percentages within which they may be regarded as tolerably reliable would show a chaotic distribution of the lowest category, varying from year to year.

There is also one potential danger in the sample which would be a case of history repeating itself. In 1951 there were only some 200 thousand people in the whole of England and Wales (including students and the children of U.K. born missionaries, civil servants and persons serving in the Armed Forces) who had been born in the 'new' Commonwealth countries in Asia, Africa and the Caribbean. A substantial (but since declining) proportion of these would be entirely of European stock. By 1961 the total number was some 470 thousand; but by 1964 there were some 740 thousand. Similar increases in the number of Cypriots, Maltese and others took place. The absence of data - because of the absence of air and short sea haul statistics (at any rate until the results of the 1961 Census justified the estimates) - meant that the mere number was one of the aspects which aroused controversy. If closer association with Europe were to remove restrictions on migration, the present sample of traffic with the Continent would clearly be inadequate to gauge the short haul migrant traffic.

Similarly, an apparent (but not actual) conflict of evidence still persists with regard to U.K. population gain from the traffic between the United Kingdom and the Republic of Ireland. It is agreed that the annual net intake direct from this traffic rose to 30 thousand around 1951, exceeded 35 thousand a year for a brief period before the 1961 Census and was between the two figures throughout the decade. This means a net movement well exceeding 300 thousand from the Republic to the U.K. over the decade. Yet the number of persons in England and Wales born in the Republic (or in Ireland, part unspecified) rose by less than 200 thousand over the decade. We have no knowledge of the specific mortality rate for persons in England and Wales born in the Irish Republic, except that extremely few born there were victims of infant mortality here and many returned home before old age. But whatever the mortality among those here in 1951 or moving here later, it is reasonable to assume that no more than 250 thousand of the newcomers during the decade could have been here at its end. The solution of the apparent mystery is, of course, that emigrants overseas from the United Kingdom, on *U.K. passports*, must have included an average of some 7 thousand a year who had been born in the Republic. With the importance of workers in the construction field among our emigrants, this is not surprising. Similar considerations apply to natives of Scotland and Northern Ireland who moved to England and Wales and thereafter overseas.

The following table shows net intake or net outflow of migrants by categories into/out of England and Wales in the five years ending 30th June 1964. This approach was begun of necessity because there was at least partial data available, whereas assessment by type of route was impossible. In the light of 1961 Census data it was possible to continue it with some confidence at first as a continuing necessity and in 1963 and since as a yardstick by which to examine data by routes from the sample.

Table C5. Estimated net intake (+) or outflow (-) of categories of migrant, mid-1959 to mid-1964, England and Wales

(Figures in thousands)

Year ending 30th June	On foreign passports*	On passports of overseas Commonwealth countries	By direct U.K. traffic with Irish Republic	From the rest of the U.K.	On U.K. passport/ beyond the U.K. and Irish Republic	Net migration
1960	+ 30	+ 66	+ 32	+ 24	- 44	+ 108
1961	+ 20	+ 120	+ 35	+ 29	- 46	+ 158
1962	+ 20	+ 185	+ 32	+ 30	- 42	+ 225
1963	+ 20	+ 47	+ 30	+ 32	- 79	+ 50
1964	+ 30	+ 83	+ 28	+ 31	- 120	+ 52

*Including those of the Republic (formerly Union) of South Africa.

†Residents of England and Wales (whatever their origin) who held a U.K. passport, offset by returning former emigrants from U.K. to England and Wales and by inward movement there of others possessing U.K. passports.

Regional migration

We have earlier drawn attention to the fact that England and Wales, alone of the constituent countries of the United Kingdom, is affected by the impact of net immigration from outside the United Kingdom on its population growth. Not only does the net loss from Scotland and Northern Ireland veil the extent of the gain by England and Wales, but United Kingdom figures necessarily further ignore the concurrent net population gain by England and Wales from the other two United Kingdom countries.

In like manner, figures for England and Wales as a whole necessarily ignore the uneven distribution of external immigration over the country and the extent to which net population growth by migration from other areas of England and Wales is or is not an additional feature. We shall therefore here attempt to assess the net impact both of external and internal migration in the various standard regions as they existed in 1963 and are able to engage in this exercise not only for the 1951-61 intercensal period but also for the mid-year to mid-year periods 1954-59 and 1959-64.

Table C6, however, necessarily suffers from three defects, compared with the national picture. First, the regions from which H.M. Forces serving overseas are drawn are unknown, so that our regional external migration figures cannot be based on change (otherwise than by the excess of births over deaths) in the *total* population of the region. Faced with the alternatives of using either the *home* or *civilian* populations of the regions as our migration criterion, we have elected to use the former, because it is more relevant to considering changes in the number of all the people in a region. When we can also assess the balance for each region between the reduction in Services personnel stationed there and its gain from civilians who have been demobilised (there or elsewhere), we shall be able further to refine these figures.

Second, the figures of the net effect of external migration are necessarily only estimates. They are based on the birthplaces data of the 1951 and 1961 Censuses. To the difference between the number of persons born, say, in France who were resident in the region concerned in 1951 and 1961, there has to be added an estimate of the number of deaths among the population at risk to arrive at an estimate of net migration from France.

Thirdly, an unknown number may not be direct external migrants to that region in the period but internal migrants from some other region of England and Wales where they formerly lived. Nevertheless the intercensal picture set out in Table C6 may be taken as useful for most practical purposes.

Table C6. Estimated rates of net annual migration into or out of the home populations of England and Wales and standard regions, intercensal period 1951-61 and mid-year to mid-year 1954-59 and 1959-64

Note. The regional figures are rounded and may not therefore cast to the England and Wales total.

(Figures in thousand persons per year)

	1951-61			1954-59			1959-64		
	Internal	External	Total	Internal	External	Total	Internal	External	Total
ENGLAND AND WALES	0	+ 38	+ 38	0	+ 9	+ 9	0	+ 127	+ 127
Standard regions:									
Northern	- 7	- 2	- 9	- 6	- 2	- 8	- 7	- 0	- 7
East and West Ridings	- 11	+ 1	- 10	- 9	- 1	- 10	- 11	+ 5	- 6
North Western	- 13	0	- 13	- 14	- 2	- 16	- 12	+ 5	- 7
North Midland	+ 4	+ 3	+ 7	+ 2	+ 2	+ 4	+ 6	+ 7	+ 13
Midland	- 2	+ 8	+ 6	- 4	+ 4	0	0	+ 19	+ 19
South East*	+ 21	+ 33	+ 54	+ 28	+ 14	+ 42	0	+ 89	+ 89
South Western	+ 10	- 2	+ 8	+ 7	- 4	+ 3	+ 25	+ 3	+ 28
Wales	- 3	- 2	- 5	- 5	- 2	- 7	- 1	- 1	- 2

*i.e. the London and South Eastern, Eastern and Southern Regions (the last including Poole M.B., Dorset).

The internal/external split of net regional migration figures for 1954-59 and 1959-64 was made on the following basis:

(a) The *external* migration gain for the whole of England and Wales in 1954-1959 was 29 thousand *less* than in 1951-1961; and in 1959-1964 it was 89 thousand *greater* than in 1951-1961. These *differences* have been spread between the regions proportionately to the numbers of people enumerated in each region in 1961 who had been born in Africa (excluding foreign countries and the Union of South Africa), India, Pakistan, Ceylon, Cyprus, Malaya, Singapore, Gibraltar, Malta and the West Indies. The logic behind this is:

(i) that it was mainly migration from these countries which was higher in 1959-1964 and lower in 1954-1959 than in 1951-1961; and

(ii) that migrants from these countries would tend to settle in the same regions after 1961 as they had done up to then.

(b) The *internal* net movements were obtained by taking the difference between the total net movements and the external net movements resulting from the previous paragraph.

In conjunction with these figures, two 1961 Census volumes study in particular the incidence of migration in England and Wales from information derived from the 10 per cent sample of census schedules which posed additional questions. The volume of *Migration* tables gives statistics of the number and characteristics of people who changed their usual residence in the year before Census Day: details of their age, marital condition, socio-economic group, occupation and industry are given together with similar information about the remainder of the population classified by the length of time they have lived at their present usual residence.

The volume of tables on *Commonwealth Immigrants in the Conurbations* contains demographic, social and economic information about people who gave as their birth-place Jamaica, other Commonwealth territories in the Caribbean, India, Pakistan, Commonwealth countries in Africa (excluding the Republic of South Africa), Cyprus or Malta.

POPULATION

It is estimated that at mid-1963 the *home* population of England and Wales was 47,028,000, the *total* population was 47,129,000 and the *civilian* population was 46,755,000. The definition of what is measured by the first two of these estimates is given in Explanatory Note 2 on page xv; the third is the *home* population shorn of its non-civilian content, whether H.M. Forces or those of our Allies stationed here. The background to this triple estimation was treated at some length on pages 2 and 3 of the 1961 Commentary in conjunction with page 2 of the 1962 Commentary.

Population growth

The events of 1963 again confirmed the deductions set out, from the evidence on population change in general and on births, deaths and migration in particular, on pages 3-8 and 11-15 of the 1961 Commentary. The figures supporting the conclusion on general population change are as follows:

Table C7. Estimated population, mid-1951, mid-1956 and mid-1961 to mid-1963, England and Wales

(Figures in thousands)

	Total			Home			Civilian		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1951	44,007	21,233	22,774	43,815	21,044	22,771	43,284	20,530	22,754
1956	44,821	21,669	23,152	44,667	21,517	23,150	44,151	21,013	23,138
1961	46,308	22,455	23,853	46,205	22,353	23,852	45,891	22,051	23,840
1962	46,807	22,756	24,051	46,709	22,660	24,049	46,418	22,382	24,036
1963	47,129	22,934	24,195	47,028	22,834	24,194	46,755	22,574	24,181

It will be seen that the difference between the increment to the *home* population and that to the *total* population which has been very small since the abolition of compulsory national service (see page 4 of the 1961 Commentary) was some 3 thousand in 1962-63.

The growth in the *home* population of England and Wales had averaged only 200 thousand a year in the forty-five years from 1911. As recently as mid-1952 to mid-1953 it was only 154 thousand and the annual average for the first half of the decade from mid-1951 was 170 thousand. For the remainder of the decade it had risen to 308 thousand. In the following year (ending mid-1962, immediately prior to the operation of the Commonwealth Immigrants Act) we added 504 thousand (i.e. over 1 per cent) to the 46,205 thousand persons here at 30th June 1961. During 1962-63 the increment dropped to 319 thousand; but in 1963-64 the net gain was

373 thousand. The annual average of 170 thousand from 1951-56 has been succeeded by an average of 342 thousand from mid-1956 to mid-1964.

Put in another way, the population of England and Wales increased by 1.9 per cent in the five years from mid-1951, but in the following five years by 3.4 per cent, while in the three years from mid-1961 to mid-1964 the increase has been 2.6 per cent.

Natural increase

In 1963 the population of England and Wales continued to increase by more than the full excess of births over deaths; but the persistently rising incidence of live births remained the most important single factor in this growth. The significance of what must now be accepted as no mere passing phase was discussed on pages 48-66 of the 1962 Commentary.

Table C8. Natural increase of the population, mid-1951 to mid-1956 and mid-1956 to mid-1963, England and Wales

	Births			Deaths			Natural increase		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Annual Average mid-1951 to mid-1956	676,430	347,864	328,566	506,789	261,563	245,226	169,641	86,301	83,340
Year ended 30th June 1957	709,658	364,569	345,089	483,659	248,948	234,711	225,999	115,621	110,378
1958	732,751	377,142	355,609	549,955	284,054	265,901	182,798	93,088	89,708
1959	749,059	385,391	363,668	536,131	274,680	261,451	212,928	110,711	102,217
1960	759,184	390,907	368,277	503,974	257,668	246,306	255,210	133,239	121,971
1961	797,863	411,150	386,713	555,130	283,408	271,722	242,733	127,742	114,991
1962	830,939	427,546	403,393	556,406	282,565	273,841	274,528	144,978	129,550
1963	848,116	436,147	411,969	576,633	294,864	281,769	271,483	141,283	130,200

It will be seen that deaths (which fluctuate independently of births) happened to increase slightly more proportionally than births in 1962-63, with the result that natural increase was trivially lower than in the previous year. In the calendar years 1962 and 1963 natural increase was 281.1 and 281.2 thousands respectively. Recent trends in live births and deaths, and so the pattern of growth in natural increase, are clearly visible from the following annual averages (in thousands):

	Live births	Deaths	Natural increase
Mid-1951 to mid-1956	676	507	169
Mid-1956 to mid-1963	775	537	238
Calendar years 1961-64 inclusive	845	554	291

Mortality is analysed in Part I of the *Statistical Review* each year and is also treated elsewhere in this and earlier Commentaries.

Apart from a single year from mid-1956, population growth in England and Wales for at least well over a century has never been identical with natural increase; traditionally this has been modified, latterly augmented, by net migration. By 1963 it was felt that the complex background to net migration (at regional as well as national level) called for more extensive treatment than could be given as part of a general Population chapter. A separate chapter on Migration has therefore been introduced.

Sex-age structure

While the 1951-61 intercensal change in the number of persons had been formally estimated in advance with remarkable accuracy (see 1962 Commentary, p. 2), final census data on the sex-age structure of the population had to be awaited before we could know how far (if at all) we had gone astray over the decade in estimating change from the situation existing at the 1951 Census. A significant correction had to be made in the estimated distribution of the sexes at mid-1961 in the light of preliminary figures from the 1961 Census which has since been slightly modified by final census data. In view of the gaps in our knowledge about the ages of persons leaving and entering the population of England and Wales by sea, air and land routes in the intercensal period, estimating the net effect of migration on its age structure had presented increasing difficulties. Very large gross movements were involved. Over the decade nearly 3 million residents here in 1951 (or who had come here later) left and were replaced by some 3.3 million newcomers from outside England and Wales (or former emigrants returning).

Final estimates of the *total, home and civilian* population of England and Wales at 30th June 1961, 1962 and 1963 were published as Appendix D in the *Registrar General's Quarterly Return* for the Third Quarter, 1964 by five-year age-groups (except for the final grouping together of those aged 85 and over) and by single years of age under 21. The mid-1963 estimate is summarised below:

Table C9. Estimated total population by sex and age, as at 30th June 1963, England and Wales

(Figures in thousands)

Age-group	Persons	Males	Females
0 - 14	10,649.4	5,461.5	5,187.9
15 - 24	6,709.9	3,416.2	3,293.7
25 - 34	5,938.8	3,041.4	2,897.4
35 - 44	6,434.9	3,232.0	3,202.9
45 - 54	6,182.7	3,021.4	3,161.3
55 - 64	5,595.7	2,635.4	2,960.3
65 and over	5,617.6	2,125.7	3,491.9
All ages	47,129.0	22,933.6	24,195.4

The final estimates are based on an age graduation of the 1961 Census results. This is a distribution of information supplied on census schedules corrected for the effects of mis-statements as to age. The method used in graduating was as follows. The population enumerated at each single year of age was divided by the related number of live births to supply a set of survivorship factors. A smooth curve was drawn through a graph of these factors, at the same time allowing for migration and for the temporary absence of non-civilians abroad. The graduated population at each age was then obtained by multiplying the smoothed survivorship factors by the related live births.

It is possible that the estimated change from the 1961 Census situation to that at mid-1963 may prove to be less precisely reliable than we hope, for in that short period of just over two years there was a migration outflow approaching half-a-million and an inflow of over three-quarters of a million. The main difficulty has been the lack of evidence about the characteristics of the outflow, compared with information concerning the inflow. From 1963 and onwards the situation has been less unbalanced, but it is still not wholly satisfactory. The Census authorised to be held in 1966 will make very much more accurate estimates possible.

Sex ratios

About 106 boys are born for every 100 girls; but in the *total* all ages population at mid-1963 there were only 95 males for every 100 females. This compares with ratios of 93 at mid-1951 and 94 at mid-1961, the slightly differing ratios reflecting merely the increasing number of young males and any effect of net migration. Since the death rates for males are higher than those for females at all ages, change in the age at which parity of males with females in the population is reached is of considerable social significance. In 1911 the excess of males at birth changed to parity of numbers by the age of ten (from excess of mortality in the 5-9 age-group); by mid-1963 it was only in the population just aged 42 that the number of females equalled (and thereafter exceeded) that of males. Migration, as well as increased survival, has played some part in this development. At older ages the death rates for males have fallen much less than those for females and consequently the excess of females at these ages has been increasing. At the 1911 Census there were 757 men for every 1,000 women aged 65 or over; in 1963 there were only 609. As recently as the 1951 Census there were 620 males to every 1,000 females aged 75 and over; but in 1963 there were nearly twice as many women as men in this age-group.

Age structure

In the 1961 Commentary (pages 9 and 10) we discussed at some length the change over the last half-century in the relative size of the groups aged under 15, 15-64 and 65 and over. The figures are brought up to date in Table C10.

Table C10. Proportion per 1,000 of the population aged under 15, 15-64, and 65 and over in 1911, 1931, 1951 and 1963, England and Wales

Age-group	1911 (census)	1931 (census)	1951 (census)	1963 (estimate)
Under 15	306	238	221	226
65 and over	52	74	110	119
Under 15 and 65 and over	358	312	331	345
15-64	642	688	669	655
All ages	1,000	1,000	1,000	1,000

This shows how the large cohort of persons born between 1871 and 1911, the largest for any forty-year period in our history and receiving its record increment in the decade prior to 1911, had produced a 1911 population which was exceptionally youthful. With the decline in mortality at younger ages survivors of this cohort (despite the impact of two world wars and continuing emigration, to be offset by the major part of the net immigration 1911-63) have moved forward in age, giving a 1963 population more closely approximating to a normal distribution than that of 1911, i.e. to a population of the same size recruited from a constant flow of births and exposed to the mortality of the relevant years.

Marital status

As in previous years an estimate of the proportion in each age-group of the population who are married is contrasted in Table C11 below with information furnished by the 1951 Census and that of 1931. The mid-1963 estimate, however, together with those for mid-1961 and mid-1962 are in the process of being revised in the light of final data from the 1961 Census. The basis of marital condition estimates is fully discussed in pages 17 to 27 of this Commentary.

Table C11. Proportion married per 1,000 in each age-group 1931, 1951 and 1963, England and Wales

Age-group	Males			Females		
	1931 (census)	1951 (census)	1963 (estimate)	1931 (census)	1951 (census)	1963 (estimate)
15-24	70	125	148	140	272	303
25-34	640	720	774	658	798	878
35-44	855	862	877	752	820	885
45-54	847	877	884	720	759	814
55-64	795	850	861	619	624	672
65 and over	619	664	708	341	352	344

With the single exception of the oldest group of females (where the excess of widows over widowers is even more marked than in the 55-64 age-group), the proportion of every age-group who are married continues to grow. For both males and females aged 15-24, it has more than doubled since 1931.

Future prospects

Population forecasts are, it is true, arrived at by precise mathematical calculation, but only on the basis of certain assumptions as to the future incidence of births and deaths and the future net consequences of migration (including its impact on fertility and mortality). If the assumptions turn out to have been valid, the end population will be precisely as projected; if they turn out not to have been valid, the end result will not be achieved, unless by chance the errors in the assumptions happen to cancel each other out. It was pointed out in earlier issues of the Commentary that the assumptions behind the official projections of the national population are currently under annual review. As a result of modifications made early in 1965 to previous assumptions, the population to A.D.2001 has been projected from the estimated mid-1964 total population and has already been published as Appendix D to the *Registrar General's Quarterly Return* for the Fourth Quarter, 1964 and also in the *Monthly Digest of Statistics*, April 1965. The methods and assumptions for that projection were published in the May 1965 issue of *Economic Trends*.

A summary of the projection from mid-1964 shows (*in thousands*):

	1967		1970		1981		1991		2001	
	Number	per 1,000	Number	per 1,000	Number	per 1,000	Number	per 1,000	Number	per 1,000
Persons All ages	48,699	1,000	49,930	1,000	54,541	1,000	59,589	1,000	66,419	1,000
Persons under 15	11,390	234	12,153	243	14,059	258	15,545	261	18,255	275
Males 15-44	9,831	202	9,911	198	11,038	202	12,573	211	14,085	212
Females 15-44	9,412	193	9,447	189	10,481	192	11,885	199	13,294	200
Males 45-64	5,826	120	5,855	117	5,762	106	5,970	100	6,604	99
Females 45-59	4,754	98	4,698	94	4,386	80	4,496	75	5,047	76
Males 65 and over	2,303	47	2,473	50	2,975	55	3,193	54	3,283	49
Females 60 and over	5,183	108	5,393	108	5,840	107	5,927	99	5,851	88

Table C12. Revised estimated home population by sex and age, as at 30th June 1963, England and Wales, standard regions, Wales and conurbations

(Figures in thousands)

		All ages	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 and over
ENGLAND AND WALES	M	22,834.0	426.9	1,575.0	1,727.9	1,731.7	1,861.8	1,496.8	1,495.7	1,517.2	1,557.5	1,663.5	1,467.0	1,551.9	1,443.0	1,192.4	835.4	607.4	682.9
	F	24,193.7	405.3	1,493.1	1,642.5	1,647.0	1,792.0	1,500.6	1,439.5	1,457.4	1,535.6	1,667.2	1,522.7	1,638.6	1,564.6	1,395.7	1,189.4	961.7	1,340.8
Standard regions and conurbations:																			
Northern	M	1,614.6	30.6	118.9	135.5	130.2	130.3	99.6	104.0	108.6	113.3	118.3	98.1	103.6	97.3	82.1	57.3	41.4	45.5
	F	1,676.0	29.0	112.8	129.4	124.3	124.1	104.2	102.3	105.7	108.8	115.3	99.7	106.9	105.2	92.1	78.0	60.8	77.4
Tyneside Conurbation	M	413.8	8.0	30.5	34.8	33.1	32.6	25.1	26.6	27.6	29.4	31.5	25.4	26.8	25.2	21.3	14.7	10.4	10.8
	F	441.2	7.5	29.0	33.2	31.9	32.7	27.9	26.6	27.4	28.7	31.5	26.5	28.3	28.3	24.8	20.8	16.1	20.0
Remainder of Northern	M	1,200.8	22.6	88.4	100.7	97.1	97.7	74.5	77.4	81.0	83.9	86.8	72.7	76.8	72.1	60.8	42.6	31.0	34.7
	F	1,234.8	21.5	83.8	96.2	92.4	91.4	76.3	75.7	78.3	80.1	83.8	73.2	78.6	76.9	67.3	57.2	44.7	57.4
East and West Ridings	M	2,046.5	38.4	142.7	158.2	159.4	165.2	125.8	129.1	132.6	141.3	149.6	133.1	140.3	132.7	111.5	76.0	53.7	56.9
	F	2,173.0	36.6	135.2	149.6	151.8	160.8	132.9	127.1	129.4	136.3	148.6	137.2	148.8	143.4	129.6	108.9	85.1	111.7
West Yorkshire Conurbation	M	820.2	15.7	57.8	63.1	63.5	62.1	48.2	51.5	53.0	57.7	59.9	54.0	57.2	55.0	46.6	31.2	21.8	21.9
	F	897.2	15.0	54.7	59.5	61.1	61.5	52.6	50.7	52.5	55.2	59.5	56.8	62.8	62.4	57.6	48.4	37.7	49.2
Remainder of East and West Ridings	M	1,226.3	22.7	84.9	95.1	95.9	103.1	77.6	77.6	79.6	83.6	89.7	79.1	83.1	77.7	64.9	44.8	31.9	35.0
	F	1,275.8	21.6	80.5	90.1	90.7	99.3	80.3	76.4	76.9	81.1	89.1	80.4	86.0	81.0	72.0	60.5	47.4	62.5
North Western	M	3,177.9	62.5	233.0	253.9	252.0	253.2	190.4	199.9	205.1	214.0	227.1	203.9	220.9	205.9	169.7	117.4	83.3	85.7
	F	3,454.3	59.3	220.8	241.1	240.6	250.1	206.8	196.2	201.5	213.9	233.7	217.7	239.2	229.5	207.6	176.5	140.1	179.7
South East Lancashire Conurbation	M	1,168.9	23.2	85.1	91.5	91.9	91.4	69.9	73.4	75.1	81.6	85.5	77.2	83.8	76.9	62.2	41.4	29.2	29.6
	F	1,270.8	22.0	80.7	86.6	88.0	91.3	76.1	72.0	73.8	80.0	86.9	81.9	90.6	85.4	76.4	64.1	50.6	64.4
Merseyside Conurbation	M	661.5	14.6	54.0	58.4	55.8	56.4	44.1	44.8	43.4	41.8	44.6	40.0	42.2	38.6	31.3	21.4	14.9	15.2
	F	724.5	13.8	51.2	55.9	53.8	57.2	48.7	43.6	42.8	43.4	47.7	43.9	46.4	43.6	38.7	32.5	26.1	35.2
Remainder of North Western	M	1,347.5	24.7	93.9	104.0	104.3	105.4	76.4	81.7	86.6	90.6	97.0	86.7	94.9	90.4	76.2	54.6	39.2	40.9
	F	1,459.0	23.5	88.9	98.6	98.8	101.6	82.0	80.6	84.9	90.5	99.1	91.9	102.2	100.5	92.5	79.9	63.4	80.1
North Midland	M	1,840.3	34.6	128.8	142.4	142.0	151.1	115.1	119.8	124.2	130.8	136.8	117.0	121.9	113.4	94.9	65.3	47.2	55.0
	F	1,883.5	32.8	122.1	134.6	134.3	145.0	114.9	114.2	117.1	123.2	130.5	115.8	123.5	117.3	104.5	88.0	69.7	96.0
Midland	M	2,414.6	46.5	170.0	185.8	184.4	211.2	160.5	162.0	170.1	172.2	184.5	158.8	159.3	144.7	115.5	76.4	53.8	58.9
	F	2,460.9	44.2	161.1	175.6	175.0	199.0	159.2	152.6	156.2	164.2	177.5	154.1	159.5	149.3	130.4	106.8	83.2	113.0
West Midlands Conurbation	M	1,172.7	23.4	82.4	88.1	88.6	101.9	79.0	80.3	83.0	83.6	92.2	79.1	78.6	70.4	55.8	35.9	24.5	25.9
	F	1,204.6	22.3	78.0	83.3	84.3	99.0	79.7	74.2	75.5	80.1	88.4	76.6	79.0	73.9	64.6	52.1	40.1	53.5
Remainder of Midland	M	1,241.9	23.1	87.6	97.7	95.8	109.3	81.5	81.7	87.1	88.6	92.3	79.7	80.7	74.3	59.7	40.5	29.3	33.0
	F	1,256.3	21.9	83.1	92.3	90.7	100.0	79.5	78.4	80.7	84.1	89.1	77.5	80.5	75.4	65.8	54.7	43.1	59.5
Eastern	M	1,925.2	35.5	141.0	150.8	146.0	152.1	129.4	130.9	136.4	136.3	141.9	120.4	122.4	111.6	91.2	66.3	51.3	61.7
	F	1,981.3	33.8	133.6	143.2	137.8	142.6	119.9	127.0	129.6	132.1	136.6	120.2	124.9	116.1	104.5	91.3	76.9	111.2
London and South Eastern	M	5,330.7	97.8	335.8	357.5	377.6	421.8	357.0	359.4	349.0	355.0	391.6	362.4	392.9	362.7	291.6	201.2	147.1	170.3
	F	5,894.7	92.8	318.5	341.0	359.6	427.3	385.4	349.7	345.4	366.3	409.4	393.2	427.4	403.8	352.5	299.3	250.0	373.1
Greater London	M	3,905.0	73.2	240.5	251.3	269.6	307.6	272.9	275.1	260.9	265.8	291.9	272.9	296.5	270.6	212.0	137.1	97.1	110.0
	F	4,280.3	69.5	228.0	241.0	257.2	317.1	299.5	263.4	255.1	271.7	303.9	293.7	317.6	294.6	249.1	204.0	167.5	247.4
Remainder of London and South Eastern	M	1,425.7	24.6	95.3	106.2	108.0	114.2	84.1	84.3	88.1	89.2	99.7	89.5	96.4	92.1	79.6	64.1	50.0	60.3
	F	1,614.4	23.3	90.5	100.0	102.4	110.2	85.9	86.3	90.3	94.6	105.5	99.5	109.8	109.2	103.4	95.3	82.5	125.7
Southern	M	1,477.1	27.9	104.5	114.0	110.7	126.6	118.6	102.2	100.1	96.3	101.5	87.5	92.0	84.9	70.4	52.7	40.1	47.1
	F	1,509.7	26.5	99.0	107.9	104.8	110.1	94.5	93.1	91.2	94.3	100.8	90.7	96.8	91.5	82.7	73.1	61.3	91.4
South Western	M	1,705.3	30.0	111.9	128.1	128.3	143.3	119.3	108.5	108.2	108.9	117.0	103.9	112.0	106.9	93.6	70.8	52.7	61.9
	F	1,798.9	28.5	106.1	122.4	121.7	130.9	103.7	100.3	101.3	109.2	118.8	110.1	120.6	118.7	110.3	97.9	80.8	117.6
Wales	M	1,301.8	23.1	88.4	101.7	101.1	107.0	81.1	79.9	82.9	89.4	95.2	81.9	86.6	82.9	71.9	52.0	36.8	39.9
	F	1,361.4	21.8	83.9	97.7	97.1	102.1	79.1	77.0	80.0	87.3	96.0	84.0	91.0	89.8	81.5	69.6	53.8	69.7
Wales I (South East)	M	940.2	16.8	64.5	73.9	73.4	77.7	57.2	58.3	60.7	66.6	70.1	59.9	62.5	59.6	51.1	36.3	25.2	26.4
	F	973.3	15.7	61.1	71.3	70.2	73.9	57.6	56.7	58.4	64.8	70.4	60.5	64.5	63.1	56.3	47.5	36.2	44.9
Wales II (remainder)	M	361.6	6.3	23.9	27.8	27.7	29.3	23.9	21.6	22.2	22.8	25.1	22.0	24.1	23.3	20.8	15.7	11.6	13.5
	F	388.1	5.9	22.8	26.4	26.9	28.2	21.5	20.3	21.6	22.5	25.6	23.5	26.5	26.7	25.2	22.1	17.6	24.8

Table C10 on page 43 contrasts the 1963 proportions per thousand of the total population in various age-groups with the situation at earlier dates. Below we compare the situation in 1911 and 1963 with that projected for 2001:

Age-group	1911	1963	2001
Under 15	306	226	275
65 and over	52	119	117
Under 15 and 65 and over	358	345	392
15-64	642	655	608
All ages	1,000	1,000	1,000

Regional populations

The availability of the final usual residence data from the 1961 Census has enabled a more precise assessment than hitherto to be made of the population of the standard regions and conurbations at mid-1963. The figures in Table C12 are a revision of those in the estimate for mid-1963 published as Table A4 in Part II for 1963.

Regional share of the national population change

The increasing momentum of national population growth is important in itself and also because of the uneven distribution of this change throughout the country. Table C13 illustrates the relative changes in the *home* population (i.e. for the regions the *resident* populations as defined for the annual mid-year estimates of their constituent local authority areas, the regional boundaries in mid-1963 being used throughout).

Table C13. Resident population at Census 1951 compared with home population at mid-1963, percentage changes, England and Wales and standard regions

(Figures in thousands)

	Resident population Census 1951	Home population mid-1963	Percentage change from Census 1951
England and Wales	43,758	47,028	+ 7.5
Standard regions:			
Northern	3,133	3,291	+ 5.0
East and West Ridings	4,091	4,220	+ 3.2
North Western	6,424	6,632	+ 3.2
North Midland	3,375	3,724	+ 10.3
Midland	4,422	4,875	+ 10.2
Eastern	3,105	3,907	+ 25.8
London and South Eastern	10,916	11,225	+ 2.8
Southern	2,470	2,987	+ 20.9
South Western	3,238	3,504	+ 8.2
Wales	2,584	2,663	+ 3.1

The changing distribution of the population since 1951 may also be illustrated by a percentage analysis both of the *home* population and of the *civilian* population in that year and at mid-1963.

Table C14. Percentage distribution of the resident population and of the civilian population Census 1951 and mid-1963, England and Wales, standard regions and regional groups

	Resident population as at Census 1951	Home population as at mid-1963	Civilian population as at	
			Census 1951	mid-1963
England and Wales	100.0	100.0	100.0	100.0
Standard regions:				
Northern Group	31.2	30.1	31.4	30.2
Northern	7.2	7.0	7.2	7.0
East and West Ridings	9.3	9.0	9.4	9.0
North Western	14.7	14.1	14.8	14.2
Midland Group	23.7	23.9	23.8	24.0
Wales	5.9	5.7	5.9	5.7
North Midland	7.7	7.9	7.7	7.9
Midland	10.1	10.4	10.1	10.4
The South East	37.7	38.5	37.6	38.4
Eastern	7.1	8.3	7.0	8.3
London and South Eastern	24.9	23.9	25.1	23.9
Southern	5.6	6.4	5.5	6.2
South Western Region	7.4	7.5	7.2	7.4

This shift in the inter-regional distribution of the population of England and Wales is largely, but by no means solely, the result of migration, both external and internal. Differential natural change must also be taken into account. The assessment of the relative importance of external and internal migration can be made intercensally with confidence: our ignorance of the regional origin of external emigrants and of the regional destination of external immigrants and the vital part that events since the Census have played in the latter makes any extension of the period less reliable. Intercensal figures demonstrating the comparative regional effects of natural change have already been published in Table 7 of the *Age, Marital Condition and General Tables* volume* of the series of reports on the 1961 Census.

*On sale at H.M. Stationery Office price £1 2s. Od. net.

Table C15. Intercensal change in population enumerated in 1951 and 1961, per cent per annum, total and by natural change and otherwise, England and Wales and standard regions

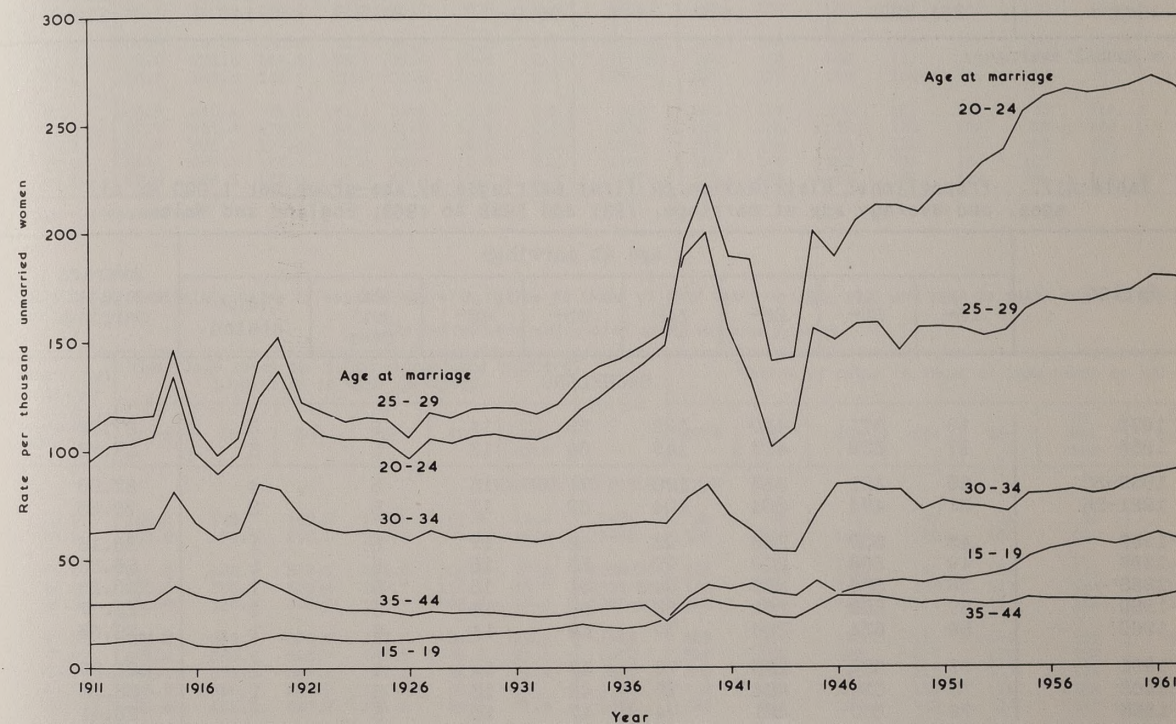
	Total	By births and deaths	Balance*
England and Wales	0.52	0.44	0.09
Standard regions:			
Northern	0.35	0.62	- 0.27
East and West Ridings	0.18	0.41	- 0.23
North Western	0.18	0.38	- 0.19
North Midland	0.73	0.54	0.19
Midland	0.73	0.59	0.14
Eastern	1.88	0.54	1.34
London and South Eastern	0.18	0.33	- 0.16
Southern	1.47	0.54	0.93
South Western	0.55	0.30	0.25
Wales	0.17	0.35	- 0.17

*The 'balance' items include voluntary migration, redeployment of the Armed Forces and the net effect of demobilisation on the areas concerned.

MARRIAGES

The marriage statistics were discussed in Part III of the *Registrar General's Statistical Review of England and Wales* for the year 1961. The following tables advance by one year the figures given in Tables V to XVI on pages 8 to 16 of the 1962 volume. Marriage rates by age during the last 50 years are shown in Diagram 1. Comment is deferred until a later year.

Diagram 1



Marriage rates* of women by age, 1911 to 1963, England and Wales

* 1911-37: all marriages per 1,000 spinsters, widows and divorced women.
1938-63: first marriages per 1,000 spinsters.

Table C16. Numbers of marriages and marriage rates, 1931 and 1938 to 1963, England and Wales

Period	Marriages	Marriage rates				
		Per 1,000 total population	Per 1,000 unmarried population			
			Men aged 15 and over	Women aged 15 and over	Men aged 20-44	Women aged 15-39
1931	311,847	15.6	53.4	41.6	106.4	68.6
1938	361,768	17.6	61.2	47.8	124.5	85.5
1939-50*	381,910	17.9	68.2	53.0	139.7	106.2
1951-55*	350,916	15.8	68.4	51.4	129.9	110.6
1956	352,944	15.7	70.9	53.0	138.9	120.7
1957	346,903	15.4	70.3	52.4	138.9	121.5
1958	339,913	15.0	69.0	51.5	137.7	120.2
1959	340,126	14.9	68.7	51.3	138.9	119.2
1960	343,614	15.0	68.9	51.6	141.5	119.9
1961	346,678	15.0	68.3	52.0	141.7	121.5
1962	347,732	14.9	66.3	51.2	140.2	117.0
1963	351,329	14.9	65.9	51.2	140.0	115.0

* Annual averages.

Table C17. Proportional distribution of first marriages by age-group per 1,000 at all ages, and average age at marriage, 1931 and 1938 to 1963, England and Wales

Period	Age at marriage								Average age at marriage
	15-	20-	25-	30-	35-	45-	55 and over	Not stated	
BACHELORS									
1931	19	371	410	122	55	14	6	3	27.30
1938	17	339	413	146	64	13	5	3	27.72
1939-50	29	421	333	122	71	15	5	4	27.06
1951-55	31	478	304	104	59	17	5	2	26.55
1956	43	502	286	93	53	17	5	1	26.15
1957	49	508	279	90	53	15	5	1	26.03
1958	56	520	268	84	51	15	5	1	25.86
1959	57	529	261	83	50	14	5	1	25.77
1960	59	534	258	79	49	14	6	1	25.68
1961	69	529	255	78	48	14	6	1	25.59
1962	73	528	254	77	48	13	6	1	25.53
1963	79	530	251	74	47	13	5	-	25.41
SPINSTERS									
1931	98	480	283	78	41	11	4	5	25.47
1938	112	460	278	86	45	11	4	4	25.58
1939-50	156	504	201	67	48	14	5	5	24.75
1951-55	186	537	161	54	38	16	6	2	24.18
1956	225	530	142	47	33	15	6	2	23.73
1957	237	529	134	45	33	14	6	2	23.60
1958	250	527	128	42	31	14	6	2	23.46
1959	252	534	121	41	30	13	7	2	23.37
1960	264	529	117	40	30	13	6	1	23.26
1961	287	511	115	38	29	12	7	1	23.13
1962	299	505	112	37	28	12	6	1	23.03
1963	305	504	109	35	28	11	7	-	22.92

Table C18. First marriage rates by sex and age with ratios to those of 1938 taken as 100, 1931 and 1938 to 1963, England and Wales

The ratios were calculated using unrounded rates

Marriage rate per 1,000 population over 15	Marriage rates per 1,000 single population in each age-group								Period	Ratio of rates to those of 1938 taken as 100							
	15-	20-	25-	30-	35-	45-	55 and over	15-		20-	25-	30-	35-	45-	55 and over	All ages*	
	BACHELORS																
56.0	3.3	72.3	152.2	111.5	49.8	16.4	5.4	1931	100	83	86	87	87	89	114	86	
64.8	3.2	87.0	176.8	127.5	57.0	18.5	4.8	1938	100	100	100	100	100	100	100	100	
71.2	6.4	112.1	175.6	128.3	61.2	20.8	5.1	1939-50	198	129	99	101	107	113	107	113	
70.8	6.7	131.8	174.4	107.3	48.9	18.3	5.1	1951-55	205	152	99	84	86	99	106	117	
73.6	11.0	153.1	187.4	105.7	44.7	16.5	4.8	1956-60	339	176	106	83	78	90	101	132	
72.7	11.5	154.1	187.6	103.8	43.3	16.1	4.8	1959	354	177	106	81	76	87	100	133	
72.8	11.7	157.8	190.9	104.0	43.4	16.0	4.8	1960	359	181	108	82	76	87	101	136	
72.1	13.2	158.9	189.4	103.7	42.6	15.8	4.8	1961	405	183	107	81	75	86	100	137	
69.5	12.8	157.5	187.6	98.7	42.8	15.6	4.7	1962	394	181	106	77	75	85	98	136	
68.6	13.4	157.2	185.1	95.5	42.7	15.1	4.7	1963	411	181	105	75	75	82	98	106	
SPINSTERS																	
51.7	17.1	106.8	119.1	57.2	21.3	7.9	2.2	1931	76	72	77	85	83	92	108	76	
61.4	22.6	147.9	154.0	87.2	25.7	8.6	2.0	1938	100	100	100	100	100	100	100	100	
69.5	36.8	191.1	153.3	72.8	28.9	10.2	2.0	1939-50	163	129	100	108	112	119	100	123	
71.9	43.9	231.9	157.2	75.1	29.4	10.4	2.1	1951-55	194	157	102	112	115	122	102	143	
77.4	56.6	264.8	189.9	80.7	30.5	10.2	2.2	1956-60	251	179	110	120	119	119	107	169	
77.1	56.5	265.4	171.2	81.1	30.3	9.9	2.3	1959	250	179	111	121	118	115	112	171	
77.8	57.7	267.8	172.7	85.7	31.4	10.4	2.2	1960	256	181	112	128	122	122	108	175	
78.8	60.8	271.7	179.4	88.7	32.2	10.5	2.3	1961	269	184	116	132	125	122	113	181	
77.2	58.4	267.3	178.7	90.4	33.3	10.3	2.2	1962	259	181	116	135	130	120	109	180	
76.8	57.6	258.3	176.0	91.8	33.6	10.7	2.3	1963	255	175	114	137	131	125	113	125	

* Age - standardised.

Table C19. Remarriage rates by sex and age with ratios to those of 1938 taken as 100, 1931 and 1938 to 1963, England and Wales

The ratios were calculated using unrounded rates

Remarriage rate per 1,000 population over 15	Remarriage rates per 1,000 widowed and divorced population in each age-group								Period	Ratios of rates to those of 1938 taken as 100							
	20-*	25-	30-	35-	45-	55 and over	20-*	25-		30-	35-	45-	55 and over	All ages†			
	WIDOWED AND DIVORCED MEN																
35.8	139.2	172.7	189.2	133.5	67.6	14.9	1931	91	99	76	87	85	94	88	88		
38.1	153.6	174.5	248.0	152.8	79.1	15.9	1938	100	100	100	100	100	100	100	100		
50.5	217.6	425.9	338.1	214.8	106.0	17.6	1939-50	142	244	136	141	134	111	133			
55.4	253.0	355.8	339.4	210.7	116.1	19.7	1951-55	165	204	137	138	147	124	139			
48.4	391.9	338.2	305.6	173.7	98.9	20.4	1956-60	255	194	123	114	125	128	126			
47.5	503.2	349.2	305.2	169.5	94.9	20.8	1959	328	200	123	111	120	131	125			
47.9	504.4	363.9	326.7	168.6	96.6	21.1	1960	328	209	132	110	122	133	128			
48.0	464.1	373.6	349.9	177.7	92.6	21.2	1961	302	214	141	116	117	134	130			
48.1	396.9	395.0	281.5	171.0	93.1	21.1	1962	258	226	114	112	118	133	126			
50.7	521.4	445.3	297.7	171.7	94.9	21.6	1963	339	255	120	112	120	136	133			
WIDOWED AND DIVORCED WOMEN																	
9.8	128.2	138.8	94.1	36.5	14.1	2.2	1931	65	81	82	73	96	89	82			
10.2	197.1	172.4	114.2	50.1	14.7	2.5	1938	100	100	100	100	100	100	100			
15.7	294.0	308.6	170.3	73.0	21.6	2.7	1939-50	149	179	149	146	146	109	145			
16.1	374.7	323.0	190.6	85.0	29.2	3.0	1951-55	190	187	167	170	198	122	167			
13.2	427.7	339.7	222.0	81.1	29.6	3.0	1956-60	217	197	194	162	200	123	168			
12.7	453.5	326.1	235.6	79.9	29.9	3.0	1959	230	189	206	159	203	123	168			
12.7	458.4	337.3	239.6	81.7	30.1	3.2	1960	233	196	210	163	204	128	172			
12.7	400.0	347.4	255.4	81.3	30.9	3.2	1961	203	202	224	162	209	131	174			
12.9	413.0	378.5	212.1	86.0	30.8	3.3	1962	210	220	186	172	209	133	176			
13.2	447.9	379.1	217.6	86.4	30.6	3.3	1963	227	220	191	172	207	133	130			

* Based on small numbers.

† Age - standardised.

Table C20. Proportional age distribution per 1,000 at all ages and average age at remarriage of widowed persons, 1931 and 1938 to 1963, England and Wales

Period	Age at remarriage											Average age at remarriage
	Under 25	25-	30-	35-	40-	45-	50-	55-	60-	65 and over	Not stated	
WIDOWED MEN												
1931	6	45	96	112	119	128	135	123	94	122	22	49.43
1938	6	42	89	110	112	124	128	125	103	137	23	50.21
1939-50	6	37	72	99	111	123	131	129	110	160	22	50.86
1951-55	3	23	49	65	92	117	141	143	129	221	17	54.59
1956-60	3	15	33	53	69	107	138	164	145	256	17	56.52
1959	3	16	29	54	64	102	137	163	147	268	17	56.97
1960	3	15	28	52	62	103	137	169	151	264	16	57.01
1961	1	11	29	48	64	98	135	164	160	276	14	57.51
1962	2	13	25	46	69	94	136	162	163	275	15	57.48
1963	4	16	28	42	67	90	135	162	167	288	-	57.62
WIDOWED WOMEN												
1931	14	76	135	168	153	144	114	70	52	57	17	44.48
1938	19	71	115	150	148	142	119	86	59	72	19	45.58
1939-50	50	124	133	128	125	126	102	76	58	61	17	43.19
1951-55	13	52	101	117	132	142	138	105	87	98	15	48.09
1956-60	14	37	61	97	118	151	146	125	112	123	15	50.45
1959	15	37	58	94	109	151	149	124	116	131	16	50.86
1960	17	37	52	87	109	153	147	128	125	132	13	51.08
1961	12	32	51	83	108	155	149	127	128	143	12	51.65
1962	13	34	52	75	112	149	151	131	129	142	12	51.64
1963	15	35	49	72	118	140	156	133	129	153	-	51.86

Table C21. Remarriage rates of widowed and divorced persons by sex and age, 1951 to 1963, England and Wales

Per 1,000 population in each group by age and condition

All ages	Men					Period	Women					
	25-	30-	35-	45-	55 and over		All ages	25-	30-	35-	45-	55 and over
WIDOWED												
31	227	201	148	92	18	1951-55	8	188	118	55	23	3
29	217	187	137	83	19	1956	7	277	141	56	23	3
29	220	176	133	85	18	1957	7	278	156	54	23	3
28	217	156	129	81	18	1958	6	220	157	51	22	3
29	268	156	130	81	19	1959	7	235	195	53	23	3
29	257	170	131	84	19	1960	7	231	197	55	24	3
29	182	183	137	82	20	1961	7	180	209	56	25	3
28	207	162	133	83	19	1962	7	182	188	58	25	3
29	254	187	122	83	20	1963	6	173	161	59	24	3
DIVORCED												
234	397	398	254	178	82	1951-55	137	383	241	135	67	20
191	343	358	212	150	71	1956	116	381	244	122	60	18
175	346	346	200	131	64	1957	107	361	238	117	58	17
161	364	336	187	119	59	1958	99	350	239	110	53	16
160	366	361	190	116	57	1959	97	351	249	111	54	16
158	385	384	188	116	57	1960	95	368	253	112	51	16
157	411	407	197	108	52	1961	94	405	269	109	51	15
151	433	310	189	107	51	1962	94	450	219	115	51	15
157	481	321	194	110	50	1963	96	449	234	113	52	15

Table C22. Proportional age distribution per 1,000 at all ages and average age at remarriage of divorced persons, 1941 to 1963, England and Wales

Period	Age at remarriage											Average age at remarriage
	Under 25	25-	30-	35-	40-	45-	50-	55-	60-	65 and over	Not stated	
DIVORCED MEN												
1941-45	11	78	196	247	202	135	73	35	15	7	1	40.34
1946-50	12	150	242	236	168	102	51	23	10	5	1	38.16
1951-55	11	117	223	206	181	129	75	34	15	9	0	39.70
1956-60	15	118	194	199	161	140	92	49	20	12	0	40.58
1959	14	114	192	206	154	137	96	51	23	12	1	40.79
1960	16	119	187	198	151	139	98	54	23	14	1	40.84
1961	18	126	195	193	156	128	94	52	24	14	0	40.52
1962	17	132	197	184	161	122	96	52	25	14	0	40.50
1963	20	145	203	180	159	116	89	50	25	13	-	40.08
DIVORCED WOMEN												
1941-45	30	169	262	229	161	87	37	16	6	1	2	36.79
1946-50	66	285	251	188	109	60	26	9	4	1	1	34.25
1951-55	49	213	260	187	137	85	42	17	6	3	1	36.09
1956-60	57	191	215	196	140	105	57	24	10	4	1	37.13
1959	57	185	208	200	136	109	62	26	11	5	1	37.42
1960	62	191	201	193	139	108	60	28	11	6	1	37.33
1961	69	193	204	180	137	107	61	30	11	7	1	37.23
1962	72	207	194	174	145	100	60	29	13	5	1	37.09
1963	77	216	201	161	141	92	62	29	14	6	-	36.85

Table C23. Proportions ever-married implied by continuation of marriage rates of 1951-55 and 1963, England and Wales

(Per thousand)

Men		Age-group	Women	
Marriage rates of			Marriage rates of	
1951-55	1963	1951-55	1963	
6	12	15-19	49	62
251	302	20-24	528	585
685	749	25-29	838	879
844	875	30-34	909	936
897	913	35-39	931	953
920	931	40-44	940	960
930	938	45-49	945	964

Table C24. Proportions ever-married among men and women, selected years 1881 to 1963, England and Wales

(Per thousand)

Year	Men aged							Year	Women aged						
	15-	20-	25-	30-	35-	40-	45-49		15-	20-	25-	30-	35-	40-	45-49
1881	26	335	649	777	834	861	877	1881	26	335	649	777	834	861	877
1891	20	299	606	754	823	850	871	1891	20	299	606	754	823	850	871
1901	16	274	588	745	801	831	858	1901	16	274	588	745	801	831	858
1911	12	243	566	730	790	820	835	1911	12	243	566	730	790	820	835
1921	18	274	590	740	796	821	832	1921	18	274	590	740	796	821	832
1931	18	258	594	751	794	819	832	1931	18	258	594	751	794	819	832
1941	39	402	719	783	801	827	831	1941	39	402	719	783	801	827	831
1946	35	442	713	829	832	836	840	1946	35	442	713	829	832	836	840
1951	42	477	782	855	869	860	848	1951	42	477	782	855	869	860	848
1956	55	539	820	883	889	893	869	1956	55	539	820	883	889	893	869
1961	65	591	857	909	911	912	896	1961	65	591	857	909	911	912	896
1962	68	595	861	913	915	915	902	1962	68	595	861	913	915	915	902
1963	67	589	863	917	919	917	908	1963	67	589	863	917	919	917	908

Table C25. Married women per 1,000 total female population in each age-group and ratio of proportion to that of 1911 taken as 100, selected years 1911 to 1963, England and Wales

Year	Age-group							Aggregates	
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	20-39	15-49
Married women per 1,000 total female population									
1911	12	242	558	711	752	755	729	552	502
1931	18	257	587	733	755	749	733	572	529
1938	23	328	643	733	771	768	736	623	566
1946	35	436	696	800	797	784	762	686	626
1951	42	475	769	828	832	812	780	731	666
1956	55	537	812	866	857	845	804	775	697
1959	61	567	829	886	871	862	821	794	707
1960	61	577	843	892	874	868	827	800	710
1961	65	589	849	897	886	868	832	808	711
1962	68	592	853	899	891	872	837	810	706
1963	67	586	854	902	896	875	841	809	702
Ratio of proportion to that of 1911 taken as 100 (calculated before rounding off the proportions)									
1911	100	100	100	100	100	100	100	100	100
1931	151	106	105	103	100	99	101	104	105
1938	192	136	115	103	103	102	101	113	113
1946	294	180	125	113	106	104	105	124	125
1951	354	197	138	116	111	108	107	132	133
1956	459	222	145	122	114	112	110	140	139
1959	513	235	150	125	116	114	113	144	141
1960	513	239	151	126	116	115	113	145	141
1961	547	244	152	126	118	115	114	146	142
1962	566	245	153	126	119	116	115	147	141
1963	563	243	153	127	119	116	115	147	140

Table C26. Quarterly incidence of marriage 1841 to 1963, England and Wales

Period	Proportion per 1,000 marriages in quarter ended			
	March	June	September	December
1841-1850	205	255	239	301
1851-1860	206	252	242	300
1861-1870	205	252	246	297
1871-1880	204	253	245	298
1881-1890	197	257	250	296
1891-1900	184	265	266	285
1901-1910	182	265	280	273
1911-1920	186	263	280	271
1921-1930	170	266	303	261
1931-1935	162	260	317	261
1936-1940	166	253	321	260
1941-1945	212	268	276	244
1946-1950	218	250	303	229
1951-1955	289	206	303	202
1956-1960	296	196	300	208
1959	298	186	302	214
1960	259	212	301	228
1961	243	220	324	213
1962	290	181	310	219
1963	277	181	316	226

Table C27. Monthly incidence of marriage, 1947 to 1963, England and Wales

Period	January	February	March	April	May	June	July	August	September	October	November	December	Total for period
Numbers of marriages													
1947-50	79,800	86,917	172,641	137,984	88,828	151,447	162,258	146,750	162,808	105,026	82,372	154,801	1,531,632
1951-55	77,794	106,484	322,146	127,251	85,085	149,785	173,716	172,504	185,313	114,109	81,472	158,920	1,754,579
1956-60	71,511	100,764	337,942	111,513	75,702	149,797	147,023	174,825	196,561	136,132	84,203	137,527	1,723,500
1956	13,651	19,898	73,573*	21,113	15,529	32,179*	30,144	34,503	42,276*	21,158	15,947	32,973*	352,944
1957	13,894	19,954	76,244*	19,034	12,150	34,620*	28,458	38,192*	36,967	21,817	18,199*	27,374	346,903
1958	12,940	20,777	68,912*	21,229	17,434*	27,548	27,900	37,115*	36,683	24,005	19,048*	26,322	339,913
1959	15,430*	18,972	67,028	20,121	17,142*	26,018	27,390	35,601*	39,600	32,649*	15,548	24,627	340,126
1960	15,596*	21,163	52,185	30,016*	13,447	29,432	33,131*	29,414	41,035	36,503*	15,461	26,231*	343,614
1961	12,310	18,020	54,118	32,733*	16,623	26,813	31,282*	30,822	50,263*	31,897	15,899	25,898*	346,678
1962	12,345	18,568	70,012*	16,540	13,722	32,810*	26,148	29,722	51,807*	34,999	15,761	25,298*	347,732
1963	12,113	19,687	65,509*	16,604	13,943	33,017*	26,775	36,874*	47,336	38,125	19,293*	22,053	351,329

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Ratio of daily average for the month to daily average for the year taken as 1,000

1947-50	614	734	1,328	1,097	683	1,204	1,248	1,129	1,294	808	655	1,191	1,000
1951-55	522	786	2,163	883	571	1,039	1,166	1,158	1,286	766	565	1,067	1,000
1956-60	489	753	2,310	789	518	1,058	1,005	1,196	1,389	933	595	940	1,000
1956	456	712	2,462*	730	520	1,113*	1,008	1,155	1,462*	709	552	1,104*	1,000
1957	472	750	2,588*	668	412	1,214*	966	1,296*	1,297	741	638*	929	1,000
1958	448	797	2,387*	760	604*	986	966	1,286*	1,313	832	682*	912	1,000
1959	534*	727	2,320	720	593*	931	948	1,232*	1,416	1,130*	556	852	1,000
1960	536*	777	1,793	1,066*	462	1,045	1,138*	1,011	1,457	1,254*	549	901*	1,000
1961	418	678	1,838	1,149*	565	941	1,062*	1,047	1,764*	1,083	558	880*	1,000
1962	418	696	2,371*	579	465	1,148*	885	1,006	1,813*	1,185	551	857*	1,000
1963	406	730	2,193*	574	467	1,142*	897	1,235*	1,638	1,277	668*	738	1,000

* These months contained five Saturdays.

D I V O R C E S

The divorce statistics were discussed in Part III of the *Registrar General's Statistical Review* of England and Wales for the year 1961. The following tables advance by two years the figures given in Tables XXV to XXX on pages 45 to 53 of that volume and by one year Tables XXI to XXVI on pages 26 to 31 in the corresponding 1962 volume; Table C29 contains the additional information of separate figures for different age-groups introduced in 1962. Further comment will be deferred until a later year.

The number of marriages which would, at certain durations, have been dissolved out of a thousand marriages contracted if the age rates in Table P4 (*Statistical Review*, Part II, 1963) were to be maintained indefinitely, ignoring the effect of mortality, were:

Age of wife at marriage	Duration in years			
	5	10	15	20
Under 20	18	74	109	136
20-24	9	36	54	70
25-29	6	25	39	50
30-34	7	26	40	-
35-39	8	27	-	-

The rates in Table C32 are based on the original number of marriages and are therefore lower than the rates based on the true population (i.e., the number of men or women still married). For previously single wives married at ages stated since 1935 the percentage excess of the original marriages (Table G) over the 1963 populations (Table NN), and hence the percentage deficiencies of the rates, were:

Calendar year of marriage	Age at marriage			
	Under 20	20-24	25-29	30-34
1955-59	-1.6	-0.1	-0.1	0.7
1950-54	3.7	4.3	4.1	6.0
1945-49	15.5	10.2	9.6	*
1940-44	28.4	24.5	*	*
1935-39	30.1	*	*	*

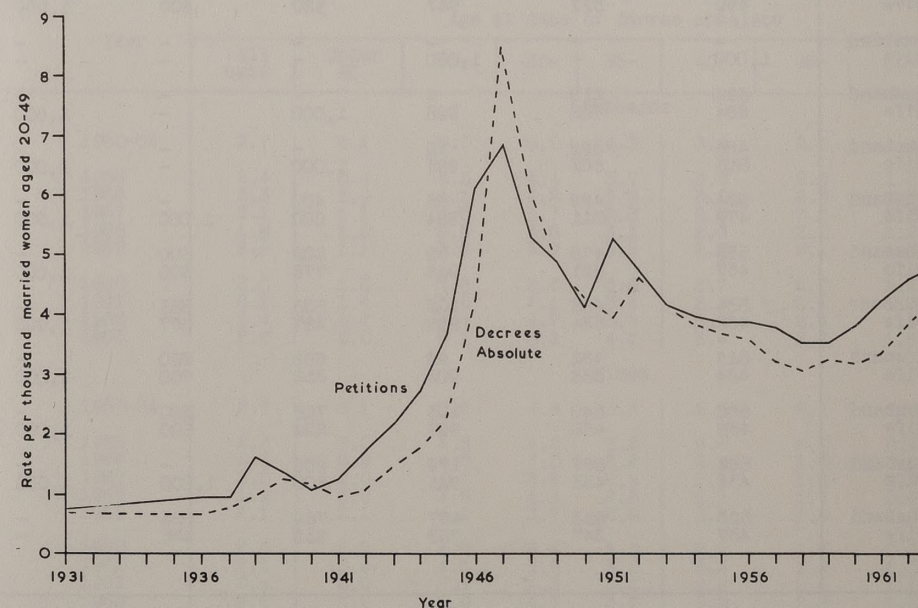
*Not available

Table C28. Dissolutions and annulments of marriage: new petitions filed and decrees made absolute, 1931 to 1963, England and Wales

Year	Petitions filed		Decrees absolute granted	
	Number	Per 1,000 married women aged 20-49	Number	Per 1,000 married women aged 20-49
1931-35*	4,784	0.80	4,011	0.67
1936	5,749	0.92	4,057	0.65
1937	5,903	0.93	4,886	0.77
1938	10,233	1.59	6,250	0.97
1939	8,703	1.33	7,955	1.22
1940	7,086	1.05	7,755	1.15
1941	8,305	1.21	6,368	0.93
1942	12,003	1.72	7,618	1.09
1943	15,385	2.19	10,012	1.43
1944	18,969	2.70	12,312	1.75
1945	25,711	3.65	15,634	2.22
1946	43,163	6.09	29,829	4.21
1947	48,501	6.81	60,254	8.47
1948	37,919	5.28	43,698	6.08
1949	35,191	4.87	34,856	4.82
1950	29,729	4.09	30,870	4.24
1951	36,362	5.23	28,767	3.92
1952	34,567	4.69	33,922	4.60
1953	30,542	4.14	30,326	4.11
1954	29,036	3.93	28,027	3.79
1955	28,314	3.83	26,816	3.62
1956	28,426	3.83	26,265	3.54
1957	27,858	3.74	23,785	3.19
1958	28,239	3.52	22,854	3.04
1959	26,327	3.52	24,286	3.25
1960	28,542	3.80	23,868	3.18
1961	31,905	4.25	25,394	3.38
1962	34,625	4.59	28,935	3.84
1963	36,385	4.83	32,052	4.26

*Annual average.

Diagram 2



Dissolutions and annulments of marriage: new petitions filed and decrees made absolute per 1,000 married women aged 20-49, 1931 to 1963, England and Wales

Table C29. Grounds on which decrees absolute of dissolution were granted by party and age, 1963, England and Wales

Age at date of decree absolute	Party to whom granted	Ground						Total
		Adultery	Desertion	Cruelty	Unsound Mind	Presumed dead	Others	
(1) Numbers								
All ages	{ Husband Wife	8,901 8,561	4,922 5,365	286 5,095	57 35	18 27	- 39	14,184 19,122
Under 20	{ Husband Wife	- 4	- -	- 11	- -	- -	- -	- 15
20-24	{ Husband Wife	332 720	64 229	3 714	- 1	- -	- 7	399 1,871
25-29	{ Husband Wife	1,741 1,849	591 894	20 1,275	- 1	- -	- 7	2,352 4,026
30-34	{ Husband Wife	1,926 1,750	871 909	33 890	2 3	- 1	- 5	2,832 3,558
35-39	{ Husband Wife	1,636 1,433	808 878	47 757	2 7	1 1	- 7	2,494 3,083
40-44	{ Husband Wife	1,352 1,179	740 849	72 634	8 7	2 4	- 7	2,174 2,680
45-49	{ Husband Wife	859 805	579 675	45 416	11 5	2 6	- 4	1,496 1,911
50-54	{ Husband Wife	601 468	524 446	30 262	12 5	2 2	- 1	1,169 1,184
55-59	{ Husband Wife	294 229	382 292	20 92	12 3	- 3	- 1	708 620
60 and over	{ Husband Wife	160 124	363 193	16 44	10 3	11 10	- -	560 374

(11) Distribution per 1,000 of each ground, by party

All ages	{ Husband Wife	510 490	478 522	53 947	620 380	400 600	- 1,000	426 574
Under 20	{ Husband Wife	- 1,000	- -	- 1,000	- -	- -	- -	- 1,000
20-24	{ Husband Wife	316 884	218 782	4 996	- 1,000	- -	- 1,000	193 807
25-29	{ Husband Wife	485 515	398 602	15 985	- 1,000	- -	- 1,000	369 631
30-34	{ Husband Wife	524 476	489 511	36 984	400 600	- 1,000	- 1,000	443 557
35-39	{ Husband Wife	533 467	479 521	58 942	222 778	500 500	- 1,000	447 553
40-44	{ Husband Wife	534 466	466 534	102 898	533 467	333 667	- 1,000	448 552
45-49	{ Husband Wife	516 484	462 538	98 902	688 312	250 750	- 1,000	439 561
50-54	{ Husband Wife	562 438	540 460	103 897	708 294	500 500	- 1,000	497 503
55-59	{ Husband Wife	562 438	567 433	179 821	800 200	- 1,000	- 1,000	533 467
60 and over	{ Husband Wife	563 437	653 347	267 733	769 231	524 476	- -	600 400

Table C29 - continued

Age at date of decree absolute	Party to whom granted	Ground						Total
		Adultery	Desertion	Cruelty	Unsound Mind	Presumed dead	Others	
(111) Distribution per 1,000 total grounds for each party, by ground								
All ages	{ Husband Wife	628 448	347 281	20 266	4 2	1 1	- 2	1,000 1,000
Under 20	{ Husband Wife	- 267	- -	- 733	- -	- -	- -	- 1,000
20-24	{ Husband Wife	832 431	160 137	8 427	- 1	- -	- 4	1,000 1,000
25-29	{ Husband Wife	740 459	251 222	9 317	- 0	- -	- 2	1,000 1,000
30-34	{ Husband Wife	680 492	307 256	12 250	1 1	- 0	- 1	1,000 1,000
35-39	{ Husband Wife	656 465	324 285	19 246	1 2	0 0	- 2	1,000 1,000
40-44	{ Husband Wife	622 439	340 317	33 237	4 3	1 1	- 3	1,000 1,000
45-49	{ Husband Wife	575 421	387 353	30 218	7 3	1 3	- 2	1,000 1,000
50-54	{ Husband Wife	514 395	448 377	26 221	10 4	2 2	- 1	1,000 1,000
55-59	{ Husband Wife	415 369	540 471	28 148	17 5	- 5	- 2	1,000 1,000
60 and over	{ Husband Wife	285 331	648 516	29 118	18 8	20 27	- -	1,000 1,000

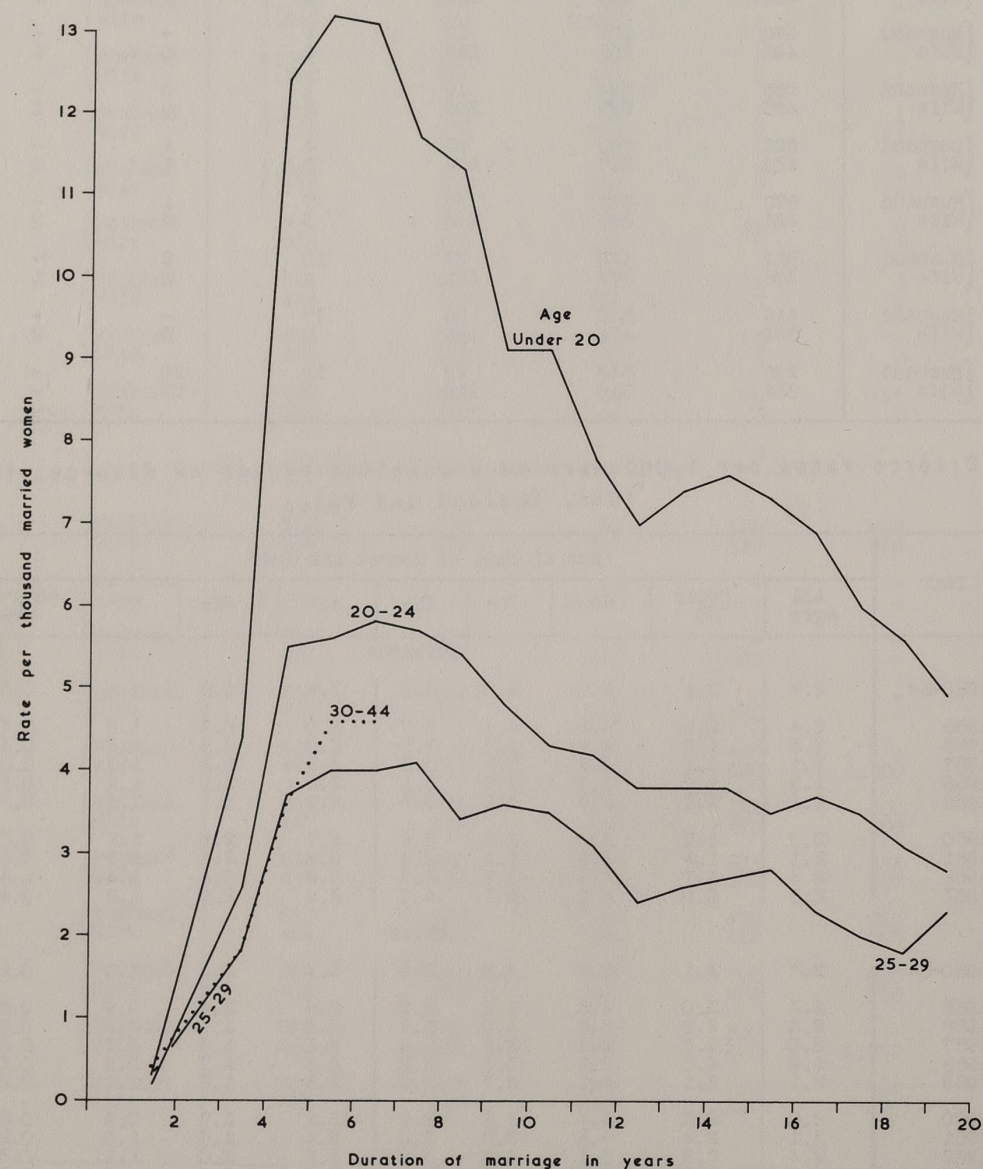
Table C30. Divorce rates per 1,000 married population by age at divorce, 1950 to 1963, England and Wales

Year	Age at date of decree absolute									
	All ages	Under 25	25-	30-	35-	40-	45-	50-	60 and over	
Husbands										
1950-54	2.7	2.1	5.0	5.0	4.3	3.4	2.5	1.4	0.3	
1955	2.4	2.0	4.2	4.4	3.7	3.0	2.3	1.3	0.3	
1956	2.3	1.9	4.1	4.2	3.5	3.0	2.3	1.3	0.3	
1957	2.1	1.1	3.6	3.7	3.3	2.6	2.2	1.3	0.3	
1958	1.9	1.0	3.3	3.5	3.1	2.6	2.0	1.2	0.3	
1959	2.1	1.1	3.6	3.9	3.2	2.9	2.1	1.3	0.3	
1960	2.0	1.0	3.6	3.8	3.2	2.7	2.0	1.2	0.3	
1961	2.1	1.4	3.9	4.1	3.4	2.8	2.1	1.3	0.3	
1962	2.4	1.7	4.4	4.7	3.7	3.2	2.4	1.4	0.4	
1963	2.6	2.0	5.1	5.1	4.1	3.4	2.6	1.5	0.4	
Wives										
1950-54	2.7	3.1	5.8	4.8	3.8	2.9	2.1	1.0	0.2	
1955	2.3	3.0	4.6	4.2	3.2	2.6	2.0	0.9	0.2	
1956	2.3	2.9	4.6	4.0	3.2	2.6	1.9	0.9	0.2	
1957	2.0	2.0	4.1	3.6	2.9	2.3	1.8	0.9	0.2	
1958	1.9	2.0	3.8	3.3	2.8	2.3	1.7	0.9	0.2	
1959	2.1	2.1	4.1	3.7	2.9	2.5	1.8	1.0	0.2	
1960	2.0	2.2	4.2	3.5	2.9	2.2	1.7	0.9	0.2	
1961	2.1	2.4	4.5	3.8	3.0	2.4	1.8	1.0	0.2	
1962	2.4	2.8	5.1	4.2	3.4	2.8	2.0	1.1	0.3	
1963	2.6	3.2	5.9	4.7	3.7	2.9	2.3	1.2	0.3	

Table C31. Dissolutions and annulments of marriage made absolute, by duration of marriage and marriage age of wife. Rates per 1,000 married women, 1963, England and Wales

Age of wife at marriage	Duration of marriage (completed years)															
	0-2	3	4	5	6	7	8	9	10	11	12	13	14	15-19	20-24	25-29
Under 20	0.3	4.4	12.4	13.2	13.1	11.7	11.3	9.1	9.1	7.8	7.0	7.4	7.6	6.2	4.2	3.5
20-	0.2	2.6	5.5	5.6	5.8	5.7	5.4	4.8	4.3	4.2	3.8	3.8	3.8	3.4	2.4	
25-	0.3	1.8	3.7	4.0	4.0	4.1	3.4	3.6	3.5	3.1	2.4	2.6	2.7	2.2		
30-	0.4	2.1	3.6	5.0	4.5	3.5	3.4	3.5	3.3	2.3	3.4	2.6	2.3			
35-	0.5	1.9	4.2	4.0	4.5	4.2	3.4	3.6	3.0	2.2						
40-44	0.4	0.8	2.8	4.6	5.1											

Diagram 3



Rates of dissolution and annulment of marriage by duration of marriage and marriage age of wife, 1963, England and Wales

Table C32. Divorce rates per 1,000 related marriages by calendar year of marriage and the ages at marriage of both parties in combination, 1963, England and Wales

Age of wife at marriage	Age of husband at marriage					
	All ages	Under 20	20-	25-	30-	35 and over
Persons married in the years 1955-59						
All ages	6.1	16.5	7.3	4.7	4.5	3.2
Under 20	11.9	17.7	11.2	9.3	9.5	12.8
20-	5.4	12.8	5.6	4.4	5.3	6.7
25-	3.8	12.2	4.8	3.1	3.6	4.3
30-	3.8	-	8.7	3.9	3.6	3.3
35 and over	2.9	41.7	11.0	5.9	4.6	2.6
Persons married in the years 1950-54						
All ages	4.2	10.6	5.3	3.7	3.2	2.1
Under 20	8.1	11.2	7.9	7.1	8.4	9.8
20-	4.1	9.1	4.3	3.6	3.7	5.5
25-	3.0	8.8	4.2	2.6	2.5	3.0
30-	3.0	36.4	5.0	3.6	2.7	2.7
35 and over	1.6	-	8.1	4.8	3.3	1.3
Persons married in the years 1945-49						
All ages	3.0	7.2	3.9	2.9	2.3	1.2
Under 20	5.9	6.9	5.8	5.5	7.0	5.9
20-	3.2	8.1	3.4	2.8	2.7	3.4
25-	2.2	2.3	2.6	2.1	2.0	2.1
30-	2.0	25.0	3.8	2.7	1.9	1.6
35 and over	0.8	33.3	1.7	3.6	1.6	0.6
Persons married in the years 1940-44						
All ages	1.9	3.7	2.5	1.7	1.4	0.6
Under 20	3.4	3.9	3.3	3.3	2.9	4.4
20-	2.1	3.5	2.3	1.7	2.0	1.9
25-	1.3	1.6	1.9	1.2	0.9	1.2
30-	1.1	7.9	3.5	1.5	1.2	0.6
35 and over	0.3	-	5.4	1.2	1.0	0.2
Persons married in the years 1935-39						
All ages	1.3	3.1	2.0	1.2	0.7	0.3
Under 20	3.0	2.7	2.7	3.6	4.3	2.5
20-	1.6	3.7	1.9	1.3	1.3	1.8
25-	0.8	2.9	1.4	0.8	0.5	0.5
30-	0.5	-	1.2	0.8	0.3	0.4
35 and over	0.1	-	0.8	0.8	0.3	0.1

Table C33. Divorce rates per 1,000 related marriages by husband's or wife's age at and marital condition before the marriage and calendar year of marriage, 1963, England and Wales

Calendar year of marriage	Previous marital condition	Age at marriage					
		All ages	Under 20	20→	25→	30→	35 and over
Husbands							
1955-59	Single	6.3	16.5	7.3	4.5	3.8	3.1
	Widowed	2.3	-	19.6	10.0	5.8	2.0
	Divorced	7.0	-	17.0	11.6	9.6	5.3
1950-54	Single	4.3	10.6	5.3	3.5	2.7	2.0
	Widowed	1.3	-	2.5	6.4	3.5	1.1
	Divorced	4.8	-	11.1	8.0	6.5	3.6
1945-49	Single	3.1	7.2	3.9	2.8	2.1	1.3
	Widowed	0.8	-	3.6	4.3	2.4	0.6
	Divorced	3.2	-	5.9	5.6	4.0	2.3
1940-44	Single	2.0	3.7	2.5	1.7	1.3	0.6
	Widowed	0.5	-	4.0	2.1	2.0	0.3
	Divorced	1.5	-	-	1.5	2.4	1.2
1935-39	Single	1.4	3.1	2.0	1.2	0.7	0.5
	Widowed	0.3	-	2.9	1.8	0.9	0.1
	Divorced	1.1	-	-	2.5	1.4	0.9
Before 1935	Single	0.7	2.0	1.1	0.5	0.3	0.1
	Widowed	0.1	-	1.4	0.5	0.3	0.0
	Divorced	0.5	-	-	1.0	0.8	0.4
Wives							
1955-59	Single	6.2	11.8	5.3	3.2	2.6	1.7
	Widowed	3.1	31.2	8.9	6.6	3.3	2.9
	Divorced	7.3	44.4	17.3	10.1	7.8	5.0
1950-54	Single	4.3	8.1	4.1	2.6	2.3	1.0
	Widowed	1.7	-	5.2	3.1	2.8	1.4
	Divorced	4.8	-	10.5	6.2	5.4	3.2
1945-49	Single	3.0	5.9	3.2	1.9	1.5	0.6
	Widowed	1.4	-	4.4	2.5	2.4	0.6
	Divorced	3.7	-	6.4	5.1	4.1	2.0
1940-44	Single	1.9	3.4	2.1	1.2	0.9	0.3
	Widowed	0.8	-	2.9	3.0	2.3	0.2
	Divorced	2.7	-	8.3	4.0	4.2	1.3
1935-39	Single	1.3	3.0	1.6	0.8	0.5	0.1
	Widowed	0.3	-	0.7	1.2	0.2	0.2
	Divorced	1.5	-	2.0	3.9	1.9	0.4
Before 1935	Single	0.7	1.8	0.8	0.4	0.2	0.0
	Widowed	0.1	-	1.2	0.7	0.3	0.0
	Divorced	0.4	-	4.7	0.2	0.5	0.2

WIDOWHOOD

The widowhood statistics were discussed in Part III of the Registrar General's Statistical Review of England and Wales for the year 1961. The following tables advance by one year the figures given in Tables XXVII and XXVIII on page 32 of the 1962 volume. Further comment will be deferred until a later year.

Table C34. Percentage of deaths with marital condition not stated, 1961 to 1963, England and Wales

Men			Age at death	Women		
1961	1962	1963		1961	1962	1963
1.2	1.0	0.97	15 and over	0.11	0.12	0.12
5.5	3.3	4.4	15-	0.48	0.33	0.37
7.1	4.7	3.0	20-	1.2	0.28	0.46
5.4	2.9	3.2	25-	0.25	-	0.23
3.4	3.2	2.7	30-	0.15	0.15	0.31
2.7	2.2	2.0	35-	-	0.18	0.14
2.3	2.0	1.3	40-	0.088	0.029	0.14
1.8	1.3	1.1	45-	0.19	0.13	0.13
1.4	1.1	0.94	50-	0.19	0.15	0.11
1.0	1.0	0.88	55-	0.14	0.078	0.092
1.2	0.93	0.93	60-	0.14	0.18	0.21
1.1	0.75	0.85	65-	0.16	0.12	0.14
1.1	1.0	0.82	70-	0.14	0.16	0.14
1.1	1.0	0.91	75 and over	0.086	0.10	0.10

Table C35. Widowhood rates, 1959 to 1963, England and Wales

1959	1960	1961	1962	1963	Age of surviving spouse	1959	1960	1961	1962	1963	
Deaths of wives per 1,000 married men					Age of surviving spouse	Deaths of husbands per 1,000 married women					
6.7	6.2	6.8	6.7	6.8		15 and over	14.0	12.9	14.2	14.4	14.7
0.4	0.3	0.4	0.4	0.4		15-	0.8	0.6	0.7	0.7	0.8
0.6	0.5	0.5	0.5	0.4		25-	1.0	0.8	1.0	0.9	0.9
0.7	0.6	0.6	0.7	0.6		30-	1.5	1.3	1.4	1.4	1.4
1.1	1.2	1.1	1.1	1.0		35-	2.6	2.4	2.5	2.5	2.5
1.7	1.7	1.7	1.8	1.7		40-	4.5	4.2	4.3	4.4	4.5
2.7	2.7	2.8	2.7	2.8		45-	7.7	7.2	7.6	7.6	7.8
4.3	4.3	4.3	4.3	4.3		50-	13.0	12.3	12.7	12.9	13.1
7.2	6.8	7.0	6.7	6.8		55-	21.4	19.8	20.7	20.8	21.1
11.2	11.2	11.3	11.4	11.5		60-	32.3	31.4	33.1	33.6	34.1
18.2	17.6	18.0	17.3	17.5	65-	49.0	47.7	50.1	49.0	49.4	
28.7	28.1	28.7	27.9	28.8	70-	70.9	66.7	69.7	71.9	72.7	
56.5	56.4	60.0	58.4	59.5	75 and over	109.0	106.1	111.9	113.2	115.3	

B I R T H S

Births were fully discussed in the Births Chapter of the 1961 Commentary volume of the Registrar General's Statistical Review (see pages 57-100). The Births Chapter of the 1962 Commentary volume of the Registrar General's Statistical Review (see pages 33-70) contained, in addition to some regular tables, a discussion of the increase in births since 1955 and also a note on the shift from nine months to eight months marriage duration as the conventional limit for pre-marital conceptions. Tables C36 to C49 extend for a further year some of the tables which have appeared in the chapters mentioned above.

Table C36. Live births and birth rates by legitimacy, 1851 to 1963, England and Wales

Year	Total live births	Live birth rate per 1,000 population	All live births per 1,000 women aged 15-44	Legitimate live births	Legitimate live births per 1,000 married women aged 15-44	Illegitimate live births	Illegitimate live births per 1,000 unmarried women aged 15-44
1851-1860	6,471,650	34.1	144.9	6,048,479	281.0	423,171	18.3
1861-1870	7,500,096	35.2	151.0	7,043,090	287.3	457,006	18.2
1871-1880	8,588,782	35.4	153.6	8,161,584	295.5	427,198	15.1
1881-1890	8,890,238	32.4	138.7	8,471,116	274.6	419,122	12.6
1891-1900	9,155,153	29.9	122.7	8,773,351	250.3	381,802	9.6
1901-1910	9,298,209	27.2	109.0	8,927,791	221.6	370,418	8.2
1911-1920	8,096,222	21.8	87.7	7,706,457	173.5	389,765	8.1
1921-1930	7,129,070	18.3	73.9	6,818,295	143.6	310,775	6.3
1931-1935	3,022,864	15.0	61.7	2,891,469	115.2	131,395	5.5
1936-1940	3,041,652	14.7	60.9	2,913,834	107.3	127,818	5.6
1941-1945	3,346,343	15.9	69.3	3,116,516	105.4	229,827	11.4
1946-1950	3,904,666	18.0	80.9	3,690,413	122.5	214,253	11.7
1951-1955	3,377,098	15.2	72.5	3,216,521	105.0	160,577	10.1
1956	700,335	15.6	77.0	666,801	108.2	33,534	11.4
1957	723,381	16.1	80.0	688,819	111.3	34,562	12.1
1958	740,715	16.4	82.1	704,541	113.6	36,174	12.8
1959	748,501	16.4	83.0	710,340	114.5	38,161	13.5
1960	785,005	17.1	86.7	742,298	119.2	42,707	15.1
1961	811,281	17.5	89.5	762,791	122.1	48,490	17.2
1962	838,736	17.9	90.8	783,360	124.1	55,376	18.9
1963	854,055	18.1	91.1	794,951	124.9	59,104	19.6

Table C37. Change in number of live births, 1951 to 1964, England and Wales

Year	Live births	Per cent change since previous year	Ratio to 1955 (1955 = 1,000)
1951	677,529	- 2.8	1,015
1952	673,735	- 0.6	1,009
1953	684,372	+ 1.6	1,025
1954	673,651	- 1.6	1,009
1955	667,811	- 0.9	1,000
1956	700,335	+ 4.9	1,049
1957	723,381	+ 3.3	1,083
1958	740,715	+ 2.4	1,109
1959	748,501	+ 1.1	1,121
1960	785,005	+ 4.9	1,175
1961	811,281	+ 3.3	1,215
1962	838,736	+ 3.4	1,256
1963	854,055	+ 1.8	1,279
1964	875,972	+ 2.6	1,312

Table C38. Illegitimate maternities and pre-maritally conceived legitimate maternities, 1938 to 1963, England and Wales

Year	Illegitimate maternities	Pre-maritally conceived legitimate maternities*†	Total maternities conceived extra-maritally*		Percentage of extra-maritally conceived maternities legitimated by marriage of parents before birth of child
			Numbers	Percentage of all maternities	
1938	27,440	64,530	91,970	14.4	70.2
1939	26,569	60,346	86,915	13.8	69.4
1940-1944‡	39,542	43,146	82,688	12.4	52.2
1945-1949‡	49,466	52,557	102,023	13.0	51.5
1950	35,816	54,188	90,004	12.8	60.2
1951	33,444	50,477	83,921	12.3	60.1
1952	33,088	44,239	77,327	11.4	57.2
1953	33,083	43,988	77,071	11.2	57.1
1954	32,128	44,319	76,447	11.2	58.0
1955	31,649	43,601	75,250	11.1	57.9
1956	34,113	47,377	81,490	11.5	58.1
1957	35,098	48,611	83,709	11.5	58.1
1958	36,787	49,775	86,562	11.6	57.5
1959	38,792	50,871	89,663	11.9	56.7
1960	43,281	54,576	97,857	12.4	55.8
1961 §	48,490	59,115	107,605	13.3	54.9
1962 §	55,376	62,455	117,831	14.0	53.0
1963 §	59,104	64,427	123,531	14.5	52.2

*From 1952 onwards the figures relate to women married once only.

†Marriage durations under 8½ months up to 1951, under 8 months thereafter.

‡Annual averages.

§The figures relate to live births, i.e. they include multiple births but exclude stillbirths.

Table C39. Legitimate maternity rates for women married once only by age and marriage duration, 1955, 1956 and 1959 to 1963, England and Wales*

Age of mother at birth	Year	Marriage duration (completed years)										
		All durations	0	1	2	3	4	5-9	10-14	15-19	20-24	25 and over
All ages under 50	1955	.088	.279	.257	.219	.203	.186	.115	.047	.019	.006	.001
	1956	.092	.292	.267	.230	.215	.192	.122	.051	.020	.006	.001
	1959	.097	.312	.281	.252	.229	.207	.132	.054	.021	.006	.001
	1960	.101	.327	.288	.258	.243	.217	.138	.057	.022	.006	.001
	1961/	.103	.336	.293	.269	.250	.218	.140	.059	.023	.006	.001
	1962/	.105	.348	.292	.278	.259	.231	.143	.059	.024	.006	.001
	1963/	.107	.348	.297	.280	.269	.235	.146	.060	.024	.006	.001
Under 20	1955	.391	.433	.305	.310	.350	-	-	-	-	-	-
	1956	.406	.454	.314	.315	.333	-	-	-	-	-	-
	1959	.416	.468	.330	.331	.342	-	-	-	-	-	-
	1960	.436	.497	.333	.338	.370	-	-	-	-	-	-
	1961/	.443	.510	.335	.321	.276	-	-	-	-	-	-
	1962/	.444	.515	.334	.345	.324	-	-	-	-	-	-
	1963/	.439	.514	.333	.341	.324	-	-	-	-	-	-
20-24	1955	.249	.269	.273	.238	.233	.221	.207	-	-	-	-
	1956	.259	.277	.283	.250	.245	.229	.217	-	-	-	-
	1959	.267	.288	.292	.269	.251	.232	.213	-	-	-	-
	1960	.272	.296	.297	.270	.262	.240	.214	-	-	-	-
	1961/	.276	.299	.301	.281	.267	.238	.214	-	-	-	-
	1962/	.281	.306	.301	.292	.275	.252	.212	-	-	-	-
	1963/	.284	.305	.305	.293	.287	.252	.215	-	-	-	-
25-29	1955	.171	.243	.244	.217	.203	.194	.143	.102	-	-	-
	1956	.180	.247	.255	.226	.216	.199	.152	.113	-	-	-
	1959	.188	.270	.268	.248	.230	.217	.159	.121	-	-	-
	1960	.196	.287	.276	.258	.246	.227	.164	.130	-	-	-
	1961/	.198	.292	.288	.267	.256	.229	.166	.132	-	-	-
	1962/	.201	.304	.282	.273	.264	.240	.168	.129	-	-	-
	1963/	.203	.303	.290	.277	.273	.247	.169	.130	-	-	-
30-34	1955	.096	.234	.243	.197	.179	.167	.104	.063	.062	-	-
	1956	.100	.247	.245	.210	.190	.173	.110	.066	.063	-	-
	1959	.105	.256	.268	.228	.209	.189	.119	.072	.061	-	-
	1960	.110	.276	.279	.240	.225	.198	.126	.076	.061	-	-
	1961/	.110	.273	.275	.251	.229	.199	.127	.078	.064	-	-
	1962/	.111	.296	.273	.257	.238	.212	.129	.077	.067	-	-
	1963/	.112	.293	.283	.261	.245	.216	.130	.078	.069	-	-
35-39	1955	.049	.166	.190	.150	.135	.128	.080	.042	.035	.035	-
	1956	.050	.175	.195	.152	.144	.132	.082	.045	.035	.035	-
	1959	.049	.188	.207	.170	.150	.135	.084	.046	.033	.033	-
	1960	.050	.198	.210	.178	.151	.138	.087	.048	.033	.035	-
	1961/	.051	.190	.203	.185	.158	.142	.090	.050	.034	.034	-
	1962/	.051	.210	.203	.182	.167	.145	.091	.049	.035	.033	-
	1963/	.051	.212	.213	.182	.173	.153	.094	.049	.035	.031	-
40-44	1955	.014	.055	.066	.052	.050	.046	.030	.016	.012	.011	.008
	1956	.014	.054	.075	.059	.049	.042	.030	.017	.012	.010	.008
	1959	.013	.067	.074	.059	.057	.046	.031	.017	.011	.009	.007
	1960	.015	.076	.081	.069	.057	.056	.035	.020	.013	.011	.007
	1961/	.015	.076	.083	.064	.062	.054	.034	.021	.013	.010	.007
	1962/	.015	.076	.085	.068	.060	.057	.035	.020	.014	.010	.007
	1963/	.014	.070	.086	.063	.068	.054	.035	.019	.013	.009	.006
45-49	1955	.001	.002	.002	.004	.004	.003	.003	.002	.001	.001	.001
	1956	.001	.003	.004	.005	.003	.002	.002	.001	.001	.001	.001
	1959	.001	.004	.005	.006	.005	.004	.003	.002	.001	.001	.001
	1960	.001	.002	.004	.001	.004	.004	.002	.002	.001	.001	.001
	1961/	.001	.003	.006	.007	.004	.004	.003	.002	.001	.001	.000
	1962/	.001	.005	.007	.006	.004	.002	.003	.002	.001	.001	.001
	1963/	.001	.008	.006	.004	.003	.005	.002	.002	.001	.001	.000

*In calculating these rates the few maternities to women whose stated age and marriage duration implied an age at marriage below the legal minimum of 16 have been excluded.
/Legitimate live birth rates.

Table C40. Gross and net reproduction rates, 1841 to 1963, England and Wales

Year	G.R.R.	N.R.R.	Year	G.R.R.	N.R.R.
3-year averages			Individual years or annual averages		
1841	2.237	1.349	1938	0.897	0.805
1851	2.264	1.381	1939-49	1.031	0.945
1861	2.277	1.427	1950-54	1.061	1.015
1871	2.356	1.511	1955	1.077	1.038
1881	2.252	1.511	1956	1.146	1.107
1891	1.973	1.369	1957	1.190	1.149
1901	1.702	1.238	1958	1.221	1.182
1911	1.428	1.121	1959	1.230	1.190
1923	1.153	0.966	1960	1.292	1.252
1933	0.862	0.756	1961	1.346	1.303
			1962	1.378	1.338
			1963	1.389	1.347

Table C41. Fertility rates by age at marriage for selected durations. Women married once only, for selected periods, 1947-48 to 1962-63, England and Wales

Age at marriage	Period of maternity	Duration of marriage (completed years)									
		0	1	2	3	4	5	15	20	25	
All ages under 45	1947-48	.301	.330	.258	.222	.203	.186	.045	.015	.001	
	1952-53	.273	.266	.224	.201	.178	.153	.026	.009	.001	
	1958-59	.310	.279	.251	.226	.208	.180	.030	.008	.001	
	1959-60	.314	.285	.252	.234	.207	.184	.030	.009	.000	
	1960-61	.328	.289	.265	.249	.219	.191	.030	.009	.001	
	1961-62	.344	.296	.272	.253	.224	.194	.031	.009	.001	
	1962-63	.348	.296	.280	.263	.234	.199	.032	.010	.001	
Under 20	1947-48	.429	.386	.305	.269	.246	.237	.107	.051	.016	
	1952-53	.437	.318	.281	.258	.221	.193	.069	.038	.009	
	1958-59	.433	.327	.295	.265	.250	.222	.055	.032	.006	
	1959-60	.439	.331	.297	.267	.235	.221	.057	.032	.005	
	1960-61	.468	.330	.303	.282	.249	.219	.060	.031	.006	
	1961-62	.480	.338	.311	.283	.251	.221	.062	.029	.007	
	1962-63	.500	.350	.340	.308	.275	.237	.067	.030	.007	
20-24	1947-48	.311	.348	.269	.234	.217	.199	.054	.018	.001	
	1952-53	.253	.267	.224	.206	.185	.162	.032	.011	.001	
	1958-59	.275	.272	.248	.229	.214	.189	.034	.008	.000	
	1959-60	.278	.276	.246	.237	.216	.192	.033	.008	.000	
	1960-61	.283	.281	.261	.251	.228	.201	.033	.009	.000	
	1961-62	.293	.286	.267	.257	.232	.204	.036	.009	.000	
	1962-63	.290	.282	.269	.262	.239	.204	.036	.009	.000	
25-29	1947-48	.272	.317	.245	.205	.187	.164	.025	.004	-	
	1952-53	.227	.257	.216	.185	.173	.155	.012	.001	-	
	1958-59	.275	.272	.247	.222	.200	.165	.012	.001	-	
	1959-60	.277	.280	.251	.231	.196	.172	.012	.001	-	
	1960-61	.292	.289	.264	.248	.208	.179	.013	.001	-	
	1961-62	.304	.293	.274	.249	.215	.184	.014	.001	-	
	1962-63	.285	.282	.261	.246	.210	.179	.013	.000	-	
30-34	1947-48	.191	.277	.205	.170	.143	.121	.006	.000	-	
	1952-53	.217	.240	.190	.160	.130	.101	.002	.000	-	
	1958-59	.247	.250	.212	.162	.142	.107	.001	-	-	
	1959-60	.264	.257	.206	.177	.138	.112	.001	-	-	
	1960-61	.265	.261	.218	.183	.150	.119	.001	-	-	
	1961-62	.275	.270	.223	.191	.152	.121	.001	-	-	
	1962-63	.270	.257	.227	.191	.150	.119	.001	-	-	
35-39	1947-48	.125	.183	.122	.086	.062	.043	.000	-	-	
	1952-53	.132	.155	.110	.079	.050	.034	.000	-	-	
	1958-59	.175	.165	.120	.083	.052	.036	-	-	-	
	1959-60	.181	.179	.128	.081	.060	.036	-	-	-	
	1960-61	.182	.171	.124	.093	.060	.040	-	-	-	
	1961-62	.191	.166	.126	.088	.064	.038	-	-	-	
	1962-63	.181	.176	.119	.084	.060	.038	-	-	-	
40-44	1947-48	.038	.051	.030	.016	.008	.005	-	-	-	
	1952-53	.039	.033	.025	.007	.006	.003	-	-	-	

Table C43 - continued

(f) Age at marriage 35-39

Duration of marriage (exact years)	Number of liveborn children	Calendar year of marriage												
		1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
0	0	935	935	935	935	935	935	935	935	935	935	935	935	935
	1	57	57	57	57	57	57	57	57	57	57	57	57	57
	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	4 and over	4	4	4	4	4	4	4	4	4	4	4	4	4
1	0	810	808	796	796	782	776	774	767	761	768	765	774	-
	1	179	180	193	193	207	212	214	221	227	219	217	209	-
	2	3	4	4	4	4	5	4	4	4	6	10	10	-
	3	2	2	2	2	2	2	2	2	2	2	0	0	-
	4 and over	5	5	5	5	5	6	5	5	6	6	8	7	-
2	0	680	681	658	660	648	637	636	617	622	633	627	-	-
	1	289	288	309	307	323	325	330	348	340	330	330	-	-
	2	22	22	24	23	19	29	24	26	26	25	30	-	-
	3	3	3	3	3	4	3	3	5	4	4	6	-	-
	4 and over	6	6	6	6	6	6	7	6	7	8	8	-	-
3	0	626	630	606	600	590	575	572	561	560	578	-	-	-
	1	302	300	322	324	338	338	342	346	353	333	-	-	-
	2	58	56	58	62	59	70	67	73	68	70	-	-	-
	3	7	7	7	7	6	10	9	12	8	8	-	-	-
	4 and over	7	7	7	7	7	7	9	8	11	10	-	-	-
4	0	598	603	575	573	558	546	540	536	533	-	-	-	-
	1	295	294	316	313	333	329	332	326	342	-	-	-	-
	2	84	81	86	92	85	97	96	106	94	-	-	-	-
	3	14	13	14	13	14	18	20	20	16	-	-	-	-
	4 and over	9	9	8	9	10	9	12	11	14	-	-	-	-
5	0	582	587	560	558	542	530	523	519	-	-	-	-	-
	1	289	289	311	305	325	320	324	320	-	-	-	-	-
	2	98	95	98	105	94	111	106	116	-	-	-	-	-
	3	20	18	20	20	26	27	30	31	-	-	-	-	-
	4 and over	11	11	11	12	13	13	17	14	-	-	-	-	-
6	0	574	578	551	549	535	523	514	-	-	-	-	-	-
	1	285	285	305	301	316	312	318	-	-	-	-	-	-
	2	101	100	104	110	100	115	111	-	-	-	-	-	-
	3	25	23	26	26	34	33	38	-	-	-	-	-	-
	4 and over	14	14	14	15	15	17	19	-	-	-	-	-	-
7	0	570	573	548	545	530	518	-	-	-	-	-	-	-
	1	282	282	300	296	311	309	-	-	-	-	-	-	-
	2	105	102	107	112	103	116	-	-	-	-	-	-	-
	3	28	26	28	29	38	36	-	-	-	-	-	-	-
	4 and over	15	16	16	18	18	20	-	-	-	-	-	-	-
8	0	568	571	546	542	529	-	-	-	-	-	-	-	-
	1	281	281	299	295	310	-	-	-	-	-	-	-	-
	2	105	104	107	113	102	-	-	-	-	-	-	-	-
	3	30	26	30	30	39	-	-	-	-	-	-	-	-
	4 and over	17	18	19	20	21	-	-	-	-	-	-	-	-
9	0	567	570	545	542	-	-	-	-	-	-	-	-	-
	1	281	280	299	293	-	-	-	-	-	-	-	-	-
	2	104	104	106	114	-	-	-	-	-	-	-	-	-
	3	30	26	30	29	-	-	-	-	-	-	-	-	-
	4 and over	18	20	20	21	-	-	-	-	-	-	-	-	-
10	0	566	570	545	542	-	-	-	-	-	-	-	-	-
	1	280	279	299	293	-	-	-	-	-	-	-	-	-
	2	104	104	107	114	-	-	-	-	-	-	-	-	-
	3	31	26	29	-	-	-	-	-	-	-	-	-	-
	4 and over	18	21	20	-	-	-	-	-	-	-	-	-	-
11	0	566	570	-	-	-	-	-	-	-	-	-	-	-
	1	281	279	-	-	-	-	-	-	-	-	-	-	-
	2	104	103	-	-	-	-	-	-	-	-	-	-	-
	3	31	26	-	-	-	-	-	-	-	-	-	-	-
	4 and over	18	21	-	-	-	-	-	-	-	-	-	-	-

Table C44. Mean ultimate family size of marriage cohorts since 1920, by age at marriage, England and Wales

Mean ultimate family sizes that include a projected element of 20 per cent or more are shown below the dotted lines

Year of marriage	Age at marriage													
	Under 45		Under 20		20-24		25-29		30-34		35-39		40-44	
	Projected element: fertility rates of													
	1951-55	1962-63	1951-55	1962-63	1951-55	1962-63	1951-55	1962-63	1951-55	1962-63	1951-55	1962-63	1951-55	1962-63
1920	2.47		3.83		2.81		2.04		1.57		0.92		0.41	
1921	2.38		3.75		2.72		1.91		1.45		0.87		0.48	
1922	2.28		3.62		2.62		1.83		1.44		0.85		0.36	
1923	2.23		3.52		2.54		1.83		1.38		0.81		0.32	
1924	2.21		3.60		2.54		1.76		1.35		0.78		0.45	
1925	2.17		3.50		2.51		1.70		1.34		0.81		0.40	
1926	2.14		3.46		2.48		1.67		1.19		0.74		0.37	
1927	2.09		3.42		2.39		1.63		1.27		0.68		0.42	
1928	2.08		3.48		2.36		1.64		1.15		0.67		0.22	
1929	2.08		3.42		2.37		1.65		1.16		0.66		0.24	
1930	2.09		3.40		2.35		1.69		1.17		0.68		0.27	
1931	2.08		3.37		2.35		1.65		1.15		0.69		0.26	
1932	2.08		3.40		2.34		1.64		1.24		0.66		0.25	
1933	2.06		3.36		2.32		1.65		1.23		0.61		0.27	
1934	2.03		3.40		2.30		1.65		1.14		0.66		0.36	
1935	2.04		3.30		2.32		1.68		1.19		0.54		0.27	
1936	2.01		3.31	3.30	2.26		1.67		1.18		0.67		0.20	
1937	2.02		3.31	3.31	2.25		1.71		1.20		0.61		0.18	
1938	2.06		3.23	3.22	2.26		1.74		1.25		0.67		0.21	
1939	2.05		3.08	3.07	2.21		1.73		1.23		0.60		0.16	
1940	1.99		2.87	2.86	2.13		1.69		1.20		0.61		0.24	
1941	2.03		2.88	2.87	2.16		1.69		1.22		0.66		0.24	
1942	2.08	2.07	2.86	2.84	2.20	2.19	1.72		1.23		0.63		0.24	
1943	2.14	2.13	2.87	2.84	2.25	2.24	1.81		1.31		0.67		0.22	
1944	2.18	2.17	2.94	2.91	2.28	2.27	1.86		1.37		0.70		0.23	
1945	2.17	2.16	3.01	2.98	2.26	2.25	1.89		1.37		0.73		0.25	
1946	2.19	2.18	3.13	3.09	2.34	2.33	1.91		1.37		0.74		0.25	
1947	2.21	2.20	3.18	3.14	2.32	2.32	1.94		1.34		0.71		0.24	
1948	2.22	2.22	3.24	3.20	2.30	2.30	1.91		1.32		0.69		0.23	
1949	2.23	2.23	3.27	3.24	2.29	2.29	1.85		1.34		0.68		0.22	
*1950	2.24	2.24	3.27	3.25	2.28	2.29	1.86		1.35		0.68		0.22	
1951	2.25	2.25	3.27	3.27	2.27	2.28	1.88		1.37		0.67		0.22	
1952	2.29	2.30	3.30	3.31	2.32	2.33	1.90	1.91	1.42		0.67		0.22	
1953	2.33	2.36	3.29	3.33	2.33	2.37	1.94	1.95	1.40		0.70		0.22	
1954	2.34	2.39	3.25	3.32	2.33	2.38	1.97	2.00	1.41	1.42	0.72		0.23	
1955	2.36	2.43	3.20	3.31	2.34	2.42	1.99	2.03	1.43	1.44	0.74		0.23	
1956	2.41	2.51	3.23	3.37	2.37	2.47	2.03	2.09	1.50	1.52	0.77		0.25	
1957	2.42	2.55	3.23	3.40	2.35	2.49	2.03	2.12	1.48	1.51	0.79		0.22	
1958	2.44	2.61	3.24	3.45	2.35	2.53	2.03	2.15	1.49	1.54	0.79	0.80	0.25	
1959	2.43	2.64	3.22	3.49	2.32	2.55	2.01	2.16	1.50	1.57	0.78	0.80	0.25	
1960	2.41	2.68	3.24	3.55	2.28	2.56	1.96	2.17	1.48	1.58	0.76	0.79	0.27	
1961	2.40	2.72	3.20	3.58	2.23	2.56	1.91	2.17	1.43	1.58	0.77	0.81	0.27	
1962	2.39	2.74	3.18	3.60	2.22	2.56	1.87	2.15	1.42	1.57	0.74	0.80	0.23	
1963	2.35	2.75	3.12	3.60	2.18	2.56	1.81	2.15	1.36	1.57	0.70	0.80	0.22	

*Family sizes for 1950 have been arbitrarily estimated.

Table C45. Quarterly incidence of live births in relation to the average for the calendar year: ratio of quarterly daily average to that of the calendar year taken as 100, 1841 to 1963, England and Wales

Period	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
1841-1850	105	103	96	96
1851-1860	105	104	96	95
1861-1870	104	103	97	96
1871-1880	103	102	98	97
1881-1890	103	102	98	97
1891-1900	102	102	99	97
1901-1910	102	103	100	95
1911-1920	103	102	99	96
1921-1930	102	105	100	93
1931-1935	101	106	101	92
1936-1940	100	106	102	92
1941-1945	100	104	99	97
1946-1950	103	104	99	94
1951-1955	103	105	99	93
1956-1960	102	103	99	96
1959	105	104	98	93
1960	101	103	100	96
1961	102	103	100	96
1962	103	104	99	94
1963	104	104	99	94

Table C46. Quarterly incidence of live births in relation to the average for the calendar year: ratio of quarterly daily average to that of the calendar year taken as 100, by legitimacy, 1939, 1951-55, 1960 to 1963, England and Wales

	1939	1951-55 average	1960	1961	1962	1963
All live births						
1st Quarter	101	103	101	102	103	104
2nd Quarter	107	105	103	103	104	104
3rd Quarter	100	99	100	100	99	99
4th Quarter	92	93	96	96	94	94
Legitimate live births						
1st Quarter	101	103	101	102	104	104
2nd Quarter	106	105	103	103	104	104
3rd Quarter	100	99	100	100	99	99
4th Quarter	93	93	96	96	94	94
Illegitimate live births						
1st Quarter	106	104	97	97	99	103
2nd Quarter	108	107	103	101	104	104
3rd Quarter	99	98	101	101	98	99
4th Quarter	87	91	99	101	98	95

Table C47. Monthly birth incidence in relation to the average for the calendar year, 1939, 1951-55, 1956-60, 1962 and 1963, England and Wales

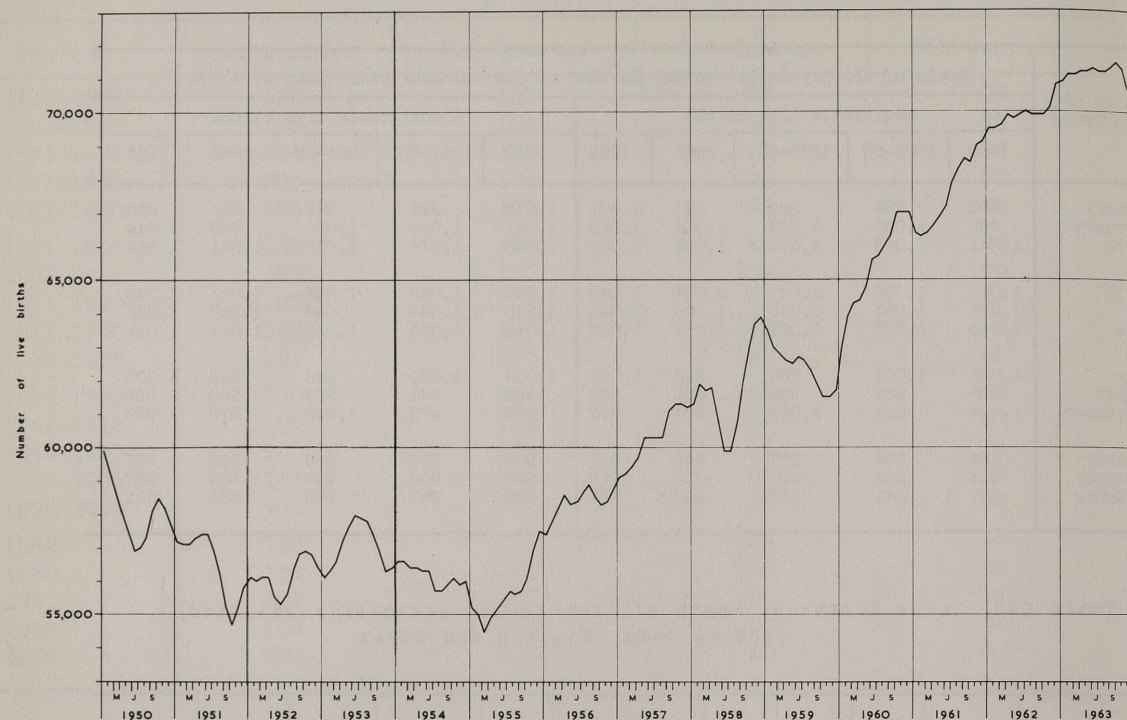
Month of occurrence	Ratio of monthly daily average to that of the calendar year taken as 1,000									
	Legitimate live births					Illegitimate live births				
	1939	1951-55	1956-60	1962	1963	1939	1951-55	1956-60	1962	1963
January	980	994	986	984	1,001	1,076	998	975	953	988
February	995	1,030	1,033	1,035	1,028	1,041	1,049	1,026	983	1,019
March	1,041	1,063	1,071	1,088	1,090	1,080	1,074	1,036	1,041	1,068
April	1,073	1,056	1,047	1,036	1,042	1,046	1,078	1,036	1,013	1,049
May	1,078	1,065	1,046	1,056	1,049	1,138	1,084	1,044	1,067	1,062
June	1,043	1,035	1,009	1,017	1,022	1,044	1,056	1,026	1,054	1,019
July	1,025	1,009	985	992	1,001	1,038	1,020	988	989	1,000
August	985	968	963	987	966	960	941	968	980	969
September	1,004	991	1,005	989	991	969	970	1,009	972	988
October	939	936	967	940	962	959	890	966	962	907
November	914	913	934	934	923	853	900	949	1,004	957
December	927	941	956	945	926	889	950	985	983	981

Table C48. Live births by month of occurrence, seasonally adjusted, 1950 to 1963, England and Wales

Year	January	February	March	April	May	June	July	August	September	October	November	December
1950	59,900	59,300	58,700	58,100	57,500	56,900	57,000	57,300	58,100	58,500	58,200	57,700
1951	57,200	57,100	57,100	57,300	57,400	57,400	56,900	56,200	55,200	54,700	55,200	55,800
1952	56,100	56,000	56,100	56,100	55,500	55,300	55,600	56,300	56,800	56,900	56,800	56,400
1953	56,100	56,300	56,600	57,200	57,600	58,000	57,900	57,800	57,400	56,900	56,300	56,400
1954	56,600	56,800	56,400	56,400	56,300	56,300	55,700	55,700	55,900	56,100	55,900	56,000
1955	55,200	55,000	54,500	54,900	55,100	55,400	55,700	55,600	55,700	56,100	56,900	57,500
1956	57,400	57,800	58,200	58,600	58,300	58,400	58,700	58,900	58,500	58,300	58,400	58,700
1957	59,100	59,200	59,400	59,700	60,300	60,300	60,300	60,300	61,100	61,300	61,300	61,200
1958	61,300	61,900	61,700	61,800	60,800	59,900	59,900	60,700	62,000	63,000	63,700	63,900
1959	63,500	63,000	62,800	62,600	62,500	62,700	62,600	62,300	61,900	61,500	61,500	61,700
1960	63,000	63,900	64,300	64,400	64,800	65,600	65,700	66,000	66,300	67,000	67,000	67,000
1961	66,400	66,300	66,400	66,600	66,900	67,200	67,900	68,300	68,600	68,500	69,000	69,100
1962	69,500	69,500	69,600	69,900	69,800	69,900	70,000	69,900	69,900	69,900	70,100	70,800
1963	70,900	71,100	71,100	71,200	71,200	71,300	71,200	71,200	71,300	71,500	71,300	70,700

Note. The original figures for occurrences have been adjusted by removing the estimated regular seasonal fluctuations so that the trend and any random variations are left.

Diagram 4



Live births by month of occurrence, seasonally adjusted, 1950 to 1963, England and Wales

Table C49. Male births per 1,000 female births, by legitimacy and whether live or still, 1928 to 1963, England and Wales

Year	Legitimate births			Illegitimate births		
	Live	Still	Live and still	Live	Still	Live and still
1928-30....	1,044	1,231	1,051	1,037	1,280	1,049
1931-35....	1,051	1,207	1,057	1,044	1,153	1,049
1936-40....	1,054	1,183	1,059	1,050	1,117	1,054
1941-45....	1,061	1,158	1,064	1,074	1,173	1,078
1946-50....	1,061	1,169	1,063	1,056	1,238	1,061
1951-55....	1,059	1,126	1,060	1,061	1,229	1,066
1956-60....	1,060	1,078	1,061	1,055	1,084	1,056
1959.....	1,063	1,071	1,063	1,069	1,144	1,071
1960.....	1,061	1,048	1,063	1,048	1,064	1,049
1961.....	1,062	1,047	1,061	1,063	1,164	1,066
1962.....	1,060	1,056	1,060	1,058	1,103	1,059
1963.....	1,056	1,116	1,057	1,046	1,036	1,046

GENERAL MORTALITY

In 1963 the crude death rates per thousand living were 12.8 and 11.6 for males and females respectively, the highest since 1951. The Standardised Mortality Ratios which take into account the "ageing" of the population were also high compared to those for several previous years. Table C52 shows that this increase was confined to the first quarter of 1963 when the cold was unusually severe.

The effect of the 1962-63 cold winter is discussed elsewhere in this Review but it may be mentioned here that the number of deaths assigned to respiratory disease increased from 72,794 in 1962 to 80,065 in 1963 (Table 7, Part I) and that pneumonia accounted for most of this increase.

Mortality figures for peptic ulcer in males and appendicitis in both males and females have been declining in recent years, and in 1963 were lower than in any previous year of the decade. Similarly the number of deaths due to nephritis and nephrosis has continued to fall, the S.M.R. in 1963 being 50 for males and 41 for females (Table 9, Part I).

Notifiable diseases

In 1963 the 247 cases of typhoid fever notified was the highest number for over 10 years. Sixty-eight of these cases had been infected while on holiday in Zermatt, Switzerland. Contaminated water supply was held to be responsible. Among the commoner notifiable diseases, whooping cough notifications increased from 8,348 in 1962, the lowest figure yet recorded, to 34,737. Measles, which has a peak incidence every second year, was notified in 601,255 cases in 1963, this number being quite usual for the year with the higher incidence.

There were only 39 cases of paralytic poliomyelitis in 1963 compared with 212 in 1962 and an average of over 2 thousand annually in 1951-55. Puerperal fever and pyrexia notifications have continued to decrease steadily since 1957, when they totalled 11,834, to 6,486 in 1963. The death rate from tuberculosis also continues to fall steadily so that in 1963 just less than 3 thousand deaths were recorded as due to this disease, almost a third of which were in males over 65 years of age with respiratory tuberculosis. For males over 75 there is as yet no sign of any diminution in mortality from respiratory tuberculosis.

Cancer

The death rate for cancer of the lung continues to increase, 24,434 deaths being caused by this disease in 1963. Although only 3,677 of these deaths were of female patients the proportional increase in the death rate of this condition is at present higher in females, their S.M.R. having increased from 146 in 1962 to 152 in 1963 as against an increase of 161 to 164 in males.

Table C89 shows a slight increase in the death rate from acute leukaemia since it was first tabulated separately in 1958. However there is as yet no evidence of an increase in children and young adults.

Diseases of the circulatory system

Deaths due to diseases of the circulatory system increased in 1963, especially in males, for whom the 108,513 deaths from this cause was just over 3,000 more than in 1962. A large part of this trend in males could be explained by an equal rise in mortality from coronary artery disease of the heart. The following statement shows that the severe winter of early 1963 was responsible for much of the increase in deaths due to this condition.

	January-March		April-June		July-September		October-December	
	M	F	M	F	M	F	M	F
Average deaths 1961-62	17,246	11,297	14,283	8,906	12,730	7,950	16,282	10,432
Deaths 1963	20,538	13,584	15,175	9,440	13,927	8,528	16,200	10,464

Table C90 shows the continued decline in mortality from acute rheumatic fever and chronic rheumatic heart disease. The death rate ascribed to phlebitis and embolism including pulmonary embolism, however, is increasing steadily, especially among females, their crude rate for all ages having increased by 37 per cent between 1960 and 1963. The rates per million in different age-groups are given below. Upward trends in mortality are seen to be most marked in those above 45 years of age. As most fatal embolic illness is either a complication of other diseases or terminal as in carcinoma, this may be due to changes in methods of certification as well as a greater awareness of the condition.

Table C50. Thrombophlebitis and embolism (ICD Nos. 463-466) death rates per million population, by sex and age, 1960 to 1963, England and Wales

Age	1960		1961		1962		1963	
	M	F	M	F	M	F	M	F
All ages	57.7	77.4	63.3	89.5	64.1	91.5	73.9	106.1
0-24	1.08	0.62	0.70	1.09	0.46	0.96	0.68	1.42
25-44	7.67	11.2	6.25	6.94	10.0	12.2	9.30	11.6
45-64	70.2	66.3	72.0	75.5	76.7	77.4	88.6	86.1
65 and over	391.8	402.7	457.1	475.2	448.8	475.5	528.3	559.9

Infant mortality and stillbirths

The infant mortality rate (deaths under 1 year per 1,000 live births) was 21.1 in 1963, the lowest recorded until then. On the other hand, as at the other extreme of life, many more infant deaths from respiratory disease occurred in 1963 than in 1962. An exception to this was pneumonia of the newborn (under the age of 4 weeks) which caused 679 deaths in 1963 as against 763 in 1962, and appeared to be unaffected by the cold winter of 1963.

Deaths due to spina bifida and meningocele and congenital hydrocephalus taken together decreased from 1,020 in 1962 to 852, this decrease being statistically significant ($P < .01$).

The mortality from postnatal asphyxia and atelectasis as well as that from immaturity, to which categories about a third of infant deaths were ascribed in 1963, has been falling over the last few years. Part of this may be due to more precise diagnosis.

The stillbirth rate (per 1,000 live and still births) at 17 was also less than in any previous year. Significant decreases in stillbirths caused by maternal toxæmia and eclampsia and difficulties in labour were shown in 1963, and in both the decline has been steady since 1961 when stillbirths were first analysed by cause.

Maternal mortality

Maternal mortality has been decreasing in the last decade and the figure of 243 maternal deaths (complications of pregnancy, childbirth and the puerperium) in 1963 was significantly less than in 1962 when it was 299. Deaths from antepartum and postpartum haemorrhage, toxæmia, prolonged labour and puerperal thrombosis and embolism have decreased in the last decade and, to a lesser extent, those due to puerperal sepsis and all forms of abortion. The most striking decline in mortality was in that ascribed to toxæmia and eclampsia for which the annual number of deaths always exceeded 100 before 1954 but fell to 46 in 1963.

Table C51. Crude annual death rates per 1,000 living, and Standardised Mortality Ratios, 1841 to 1963, England and Wales

Period	Crude death rate per 1,000 living		Standardised Mortality Ratio* (1950-52 = 100)	
	Males	Females	Males	Females
	1841-1850	23.1	21.6	320
1851-1860	23.1	21.4	313	384
1861-1870	23.7	21.4	319	383
1871-1880	22.7	20.1	308	362
1881-1890	20.3	18.1	281	327
1891-1900	19.3	17.1	268	307
1901-1910	16.4	14.4	221	248
1911-1920	15.1	13.0	187	207
1921-1930	12.9	11.4	142	159
1931-1940	13.0	11.5	125	136
1941-1950	12.5	10.9	104	107
1951-1960	12.3	10.9	96	92
1941	14.0	11.8	124	127
1942	12.5	10.5	109	111
1943	12.7	11.1	109	114
1944	12.6	10.7	106	108
1945	12.3	10.7	103	106
1946	12.2	10.9	101	106
1947	12.9	11.2	106	108
1948	11.5	10.1	93	95
1949	12.3	11.1	99	103
1950	12.3	11.0	98	101
1951	13.4	11.8	106	106
1952	12.2	10.5	96	93
1953	12.2	10.7	96	94
1954	12.2	10.5	95	91
1955	12.5	10.9	97	93
1956	12.5	10.9	96	92
1957	12.3	10.7	94	88
1958	12.4	11.0	95	90
1959	12.3	11.0	94	89
1960	12.2	10.9	92	87
1961	12.6	11.4	96	90
1962	12.6	11.3	96	89
1963	12.8	11.6	98	91

*Civilians only, 1914-1918 and 1939-1949.

Table C52. Abridged life table, 1961-63, England and Wales

Males		Age x	Females	
l_x	e_x		l_x	e_x
10,000	67.9	0	10,000	73.9
9,760	68.6	1	9,814	74.3
9,744	67.7	2	9,801	73.4
9,735	66.8	3	9,793	72.4
9,728	65.8	4	9,788	71.5
9,722	64.9	5	9,783	70.5
9,699	60.0	10	9,767	65.6
9,679	55.1	15	9,755	60.7
9,635	50.4	20	9,738	55.8
9,582	45.6	25	9,714	50.9
9,535	40.9	30	9,685	46.1
9,477	36.1	35	9,642	41.3
9,391	31.4	40	9,575	36.5
9,251	26.8	45	9,473	31.9
9,007	22.5	50	9,308	27.4
8,594	18.5	55	9,062	23.1
7,895	14.9	60	8,696	19.0
6,841	11.8	65	8,117	15.1
5,456	9.1	70	7,238	11.7
3,842	6.9	75	5,920	8.7
2,221	5.1	80	4,167	6.3
933	3.8	85	2,259	4.6

This abridged life table is constructed from the estimated home population in 1961, 1962 and 1963, and the total deaths registered in those years.

The column headed l_x shows, for each sex, the numbers who would survive to exact age x out of 10,000 born who were subject throughout their lives to the recorded age death rates of the period.

Column e_x is the "expectation of life", that is, the average future life-time which would be lived by persons aged exactly x , if likewise subject to those death rates.

Table C53. Expectation of life at birth and at age 1 year, 1838 to 1963
England and Wales

From English Life Table	Year	Expectation of life at			
		Birth		Age 1 year	
		Males	Females	Males	Females
No. 1	1841	40.2	42.2	46.7	47.6
2	1838-44	40.4	42.0	47.0	47.4
3	1838-54	39.9	41.9	46.7	47.3
4	1871-80	41.4	44.6	48.1	50.1
5	1881-90	43.7	47.2	51.0	53.2
6	1891-1900	44.1	47.8	52.2	54.5
7	1901-10	48.5	52.4	55.7	58.3
8	1910-12	51.5	55.4	57.5	60.3
9	1920-22	55.6	59.6	60.1	63.0
10	1930-32	58.7	62.9	62.3	65.5
11	1950-52	66.4	71.5	67.7	72.4
From annual Abridged Life Tables	1943	61.6	67.3	64.1	69.3
	1944	62.2	68.3	64.4	70.1
	1945	62.6	68.8	65.0	70.6
	1946	64.5	69.4	66.8	71.0
	1947	64.5	69.3	66.6	70.9
	1948	66.4	71.2	68.0	72.3
	1949	66.0	70.6	67.5	71.7
	1950	66.5	71.2	67.8	72.1
	1951	65.8	70.9	67.1	71.7
	1952	67.1	72.5	68.2	73.2
	1953	67.3	72.5	68.4	73.3
	1954	67.6	73.1	68.6	73.7
	1955	67.5	73.0	68.5	73.6
	1956	67.8	73.3	68.6	73.8
	1957	67.9	73.6	68.7	74.1
	1958	68.0	73.7	68.7	74.2
	1959	68.1	73.8	68.8	74.3
	1960	68.3	74.1	69.0	74.6
	1961	68.0	73.8	68.7	74.2
	1962	68.0	73.9	68.7	74.3
1963	67.8	73.8	68.5	74.2	

Table C54. Annual death rates per 1,000 living, by quarters, in each year
1953 to 1963, with ratios to each yearly rate taken as 100,
England and Wales

	Death rate per 1,000 living				Ratio to yearly rate taken as 100			
	March	June	September	December	March	June	September	December
1953	15.8	10.4	8.9	10.7	139	91	78	94
1954	14.0	10.6	9.3	11.4	124	94	82	101
1955	15.4	11.2	9.1	11.1	132	96	78	95
1956	15.3	10.8	9.3	11.3	131	92	79	97
1957	12.2	10.6	9.7	13.4	106	92	84	117
1958	14.7	11.0	9.3	11.7	126	94	79	100
1959	15.8	10.6	9.0	11.1	136	91	78	96
1960	13.1	10.9	9.8	12.2	114	95	85	106
1961	15.5	10.9	9.5	11.9	130	92	80	100
1962	15.5	11.1	9.4	11.9	130	93	79	100
1963	17.0	11.0	9.6	11.2	139	90	79	92

Table C55. Average annual death rates per 1,000 living, by sex and age, 1841 to 1963, England and Wales

	Males									Females								
	All ages	0-*	1-	5-	15-	25-	45-	65-	85 and over	All ages	0-*	1-	5-	15-	25-	45-	65-	85 and over
1841-1850	23.1	167		7.24	8.23	11.2	23.6	89.6	312.3	21.6	137		7.27	8.50	11.6	21.1	82.4	293.3
1851-1860	23.1	168		6.79	7.71	10.9	23.2	86.8	308.2	21.4	139		6.84	7.98	10.9	20.1	80.0	288.9
1861-1870	23.7	168		6.43	7.26	11.5	24.8	87.7	315.0	21.4	139		6.25	7.30	10.7	20.6	79.8	285.1
1871-1880	22.7	163		5.29	6.24	11.3	26.1	90.2	327.4	20.1	134		5.05	6.12	9.92	21.0	80.9	296.4
1881-1890	20.3	155		4.20	4.97	9.79	25.5	89.4	305.8	18.1	128		4.23	4.97	8.76	20.6	78.9	270.8
1891-1900	19.3	168		3.40	4.38	8.82	25.2	89.4	286.8	17.1	138		3.49	4.06	7.58	20.3	79.5	261.4
1901-1910	16.4	140		2.80	3.61	7.16	22.3	82.7	279.2	14.4	114		2.91	3.20	5.60	17.5	71.6	250.3
1911-1920	15.1	112		2.93	4.16	7.05	20.2	81.4	274.5	13.0	89		2.97	3.53	5.54	15.2	67.6	243.6
1921-1925	12.9	86		2.10	3.06	5.24	16.9	76.2	272.7	11.4	66		2.05	2.83	4.26	12.8	64.0	241.2
1926-1930	12.9	77		2.06	2.93	4.84	17.0	76.3	298.1	11.4	59		1.90	2.67	3.97	12.4	62.5	254.4
1931-1935	12.7	70	6.88	1.84	2.81	4.23	16.6	75.1	278.9	11.4	54	6.23	1.71	2.51	3.67	11.9	61.0	245.0
1936-1940	13.3	62	5.00	1.60	2.64	3.95	17.3	76.2	286.3	11.6	48	4.40	1.40	2.17	3.22	11.5	60.1	252.7
1941-1945	12.8	56	3.72	1.44	2.99	3.72	15.7	69.0	226.1	10.9	44	3.26	1.13	1.98	2.84	9.86	52.6	206.6
1946-1950	12.2	41	1.90	0.79	1.42	2.58	14.5	69.9	241.6	10.9	32	1.62	0.59	1.29	2.17	8.79	52.1	208.9
1951-1955	12.5	30	1.23	0.52	1.05	2.05	13.9	75.5	265.9	10.9	23	1.04	0.37	0.60	1.60	8.02	51.9	222.0
1956-1960	12.3	25	0.99	0.44	1.00	1.82	13.5	74.1	239.2	10.9	20	0.82	0.30	0.45	1.34	7.43	49.4	212.5
1956	12.5	27	0.98	0.43	0.93	1.85	13.5	75.8	256.2	10.9	20	0.83	0.30	0.45	1.40	7.55	51.0	222.7
1957	12.3	26	1.04	0.46	1.03	1.86	13.7	73.5	226.8	10.7	20	0.90	0.32	0.49	1.41	7.59	48.7	199.2
1958	12.4	25	0.99	0.44	0.95	1.81	13.5	75.1	242.6	11.0	20	0.77	0.27	0.45	1.32	7.45	49.9	215.6
1959	12.3	25	1.00	0.43	1.03	1.79	13.5	73.9	240.0	11.0	20	0.81	0.31	0.44	1.30	7.34	49.3	215.4
1960	12.2	25	0.95	0.45	1.03	1.79	13.4	72.4	232.1	10.9	19	0.78	0.30	0.40	1.25	7.23	48.1	210.4
1961	12.6	24	1.04	0.43	1.01	1.80	13.8	75.3	256.9	11.4	19	0.81	0.28	0.45	1.27	7.42	50.2	214.1
1962	12.6	24	0.94	0.43	1.00	1.75	14.0	75.7	261.1	11.3	19	0.77	0.28	0.41	1.29	7.45	49.5	213.8
1963	12.8	24	0.98	0.44	0.99	1.80	14.4	77.3	272.8	11.6	19	0.83	0.28	0.39	1.29	7.58	50.4	220.2

* Per thousand live births; related live births from 1931 to 1956.

Table C56. Deaths, death rates per million living, and Standardised Mortality Ratios (1950-52 = 100), from selected causes, by sex, 1954 to 1963, England and Wales

		1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
All causes											
Deaths	M	259,797	266,976	267,904	266,407	270,639	269,878	269,172	280,782	285,154	292,410
	F	242,099	251,888	253,427	248,463	256,204	257,773	257,096	270,970	272,482	280,458
Rate	M	12,204	12,482	12,451	12,306	12,447	12,332	12,196	12,561	12,584	12,806
	F	10,532	10,927	10,947	10,882	10,965	10,969	10,855	11,361	11,330	11,592
S.M.R.	M	95	97	96	94	95	94	92	96	96	98
	F	91	93	92	88	90	89	87	90	89	91
Tuberculosis, all forms (001-019)											
Deaths	M	5,392	4,533	3,804	3,414	3,207	2,810	2,502	2,406	2,282	2,191
	F	2,505	1,959	1,571	1,370	1,273	1,044	933	928	806	769
Rate	M	253	212	177	158	147	128	113	108	101	96
	F	109	85	68	59	54	44	39	39	34	32
S.M.R.	M	62	52	43	38	36	31	27	26	24	23
	F	52	41	33	28	26	21	19	19	16	15
All malignant neoplasms (140-205)											
Deaths	M	47,313	48,160	48,935	50,056	50,735	51,783	52,779	53,441	54,735	55,192
	F	42,782	43,180	43,775	43,961	45,069	45,334	46,009	46,474	46,873	47,224
Rate	M	2,223	2,252	2,274	2,312	2,333	2,366	2,391	2,391	2,416	2,417
	F	1,861	1,873	1,891	1,890	1,929	1,929	1,943	1,948	1,949	1,952
S.M.R.	M	103	104	105	106	106	107	108	108	110	111
	F	98	98	97	96	97	97	97	96	96	96
Malignant neoplasm of stomach (151)											
Deaths	M	7,818	7,942	7,712	7,951	7,934	7,930	7,846	7,784	7,722	7,744
	F	6,232	6,146	6,163	5,966	6,178	6,146	6,107	6,004	5,874	5,937
Rate	M	367	371	358	367	365	362	356	348	341	339
	F	271	267	266	257	264	262	258	252	244	245
S.M.R.	M	95	95	91	93	92	91	88	87	86	86
	F	92	90	89	84	85	83	81	79	76	76
Malignant neoplasm of trachea, bronchus and lung (162, 163)											
Deaths	M	13,941	14,761	15,544	16,358	17,040	18,181	18,882	19,460	20,278	20,757
	F	2,323	2,438	2,553	2,670	2,780	2,882	3,118	3,350	3,501	3,677
Rate	M	655	690	722	756	784	831	856	871	895	909
	F	101	106	110	115	119	123	132	140	146	152
S.M.R.	M	122	128	133	138	142	149	153	156	161	164
	F	107	111	115	118	121	124	132	141	146	152
Malignant neoplasm of breast (170)											
Deaths	M	80	77	69	70	73	62	63	81	79	70
	F	8,315	8,449	8,522	8,552	8,949	8,708	9,059	9,286	9,351	9,442
Rate	M	4	4	3	3	3	3	3	4	3	3
	F	362	367	368	368	383	371	382	389	389	390
S.M.R.	M	125	119	105	105	109	92	92	118	114	101
	F	100	100	100	99	101	97	100	102	102	102
Malignant neoplasm of uterus (171-174)											
Deaths	F	3,827	3,844	3,921	3,912	4,115	4,003	4,088	3,981	4,015	3,969
Rate	F	166	167	169	168	176	170	173	167	167	164
S.M.R.	F	91	90	91	89	93	89	90	87	87	85

Table C56. continued

		1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Leukaemia and aleukaemia (204)											
Deaths	M	1,142	1,223	1,229	1,301	1,301	1,315	1,476	1,408	1,392	1,511
	F	1,018	1,001	1,086	1,093	1,085	1,219	1,218	1,237	1,315	1,319
Rate	M	54	57	57	60	60	60	67	63	61	66
	F	44	43	47	47	46	52	51	52	55	55
S.M.R.	M	110	117	116	122	121	121	134	127	124	133
	F	110	107	115	115	113	125	124	125	131	131
Diabetes mellitus (260)											
Deaths	M	1,048	1,084	1,108	1,013	1,152	1,100	1,193	1,331	1,330	1,371
	F	1,980	2,207	2,134	2,124	2,163	2,093	2,366	2,538	2,481	2,433
Rate	M	49	51	51	47	53	50	54	60	59	60
	F	86	96	92	91	93	89	100	106	103	101
S.M.R.	M	87	89	90	81	92	87	93	103	103	105
	F	78	86	82	80	80	77	85	90	87	84
Vascular lesions affecting central nervous system (330-334)											
Deaths	M	30,516	31,098	31,034	30,537	31,298	30,897	31,006	31,160	31,673	32,264
	F	41,626	43,054	43,453	43,132	44,879	44,253	45,216	45,863	46,624	48,076
Rate	M	1,433	1,454	1,442	1,411	1,439	1,412	1,405	1,394	1,398	1,413
	F	1,811	1,868	1,877	1,854	1,921	1,883	1,909	1,923	1,939	1,987
S.M.R.	M	104	105	104	100	102	100	99	99	100	102
	F	100	101	100	97	99	96	96	96	97	99
Diseases of the circulatory system (400-468)											
Deaths	M	94,637	96,704	98,065	95,784	99,907	98,306	100,244	102,364	105,466	108,513
	F	91,331	95,222	95,470	92,566	97,738	95,526	98,319	102,394	102,857	105,106
Rate	M	4,446	4,521	4,558	4,425	4,595	4,401	4,542	4,579	4,654	4,752
	F	3,973	4,131	4,124	3,980	4,163	4,065	4,151	4,293	4,277	4,344
S.M.R.	M	97	98	99	95	98	94	96	98	100	103
	F	90	92	91	86	89	85	86	88	87	88
Arteriosclerotic heart disease (420)											
Deaths	M	42,919	44,857	47,476	48,266	52,085	52,193	56,514	58,396	62,686	65,840
	F	24,925	26,813	28,300	28,910	31,956	32,729	35,447	37,379	39,792	42,016
Rate	M	2,016	2,097	2,206	2,230	2,395	2,385	2,561	2,612	2,766	2,883
	F	1,084	1,163	1,222	1,243	1,368	1,393	1,497	1,567	1,655	1,737
S.M.R.	M	112	116	121	122	129	128	137	141	150	156
	F	108	115	119	119	129	130	138	144	151	158
Diseases of the respiratory system (470-527)											
Deaths	M	31,090	35,381	36,080	37,939	37,024	40,756	34,833	43,372	42,923	46,870
	F	20,056	23,345	24,428	24,066	23,784	27,796	22,122	29,732	29,871	33,195
Rate	M	1,460	1,654	1,677	1,753	1,703	1,862	1,578	1,940	1,894	2,053
	F	873	1,013	1,055	1,035	1,018	1,183	934	1,247	1,242	1,372
S.M.R.	M	83	94	95	98	96	104	88	109	107	116
	F	71	81	83	80	79	91	71	94	93	102
Influenza (480-483)											
Deaths	M	878	1,460	1,272	3,553	1,216	3,898	553	3,487	1,511	1,442
	F	933	1,523	1,354	3,163	1,185	3,964	545	3,615	1,797	1,772
Rate	M	41	68	59	164	56	178	25	156	67	63
	F	41	66	58	136	51	169	23	152	75	73
S.M.R.	M	25	42	36	99	34	107	15	94	40	38
	F	23	37	33	74	27	90	12	79	39	38

Table C56. continued

		1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Pneumonia (490-493, 763)											
Deaths	M	9,750	11,101	11,871	12,074	12,311	13,648	12,269	14,513	14,942	17,346
	F	9,126	10,715	11,549	11,488	12,264	13,692	12,806	15,466	16,730	19,396
Rate	M	458	519	542	558	566	624	556	649	659	760
	F	397	465	499	494	525	583	541	648	696	802
S.M.R.	M	90	102	107	109	110	121	107	125	127	147
	F	90	104	110	107	112	123	113	134	143	163
Bronchitis (500-502)											
Deaths	M	17,163	19,318	19,890	18,956	20,326	20,193	18,997	22,203	23,351	24,832
	F	8,625	9,675	10,019	8,141	9,070	8,858	7,488	9,160	9,942	10,500
Rate	M	806	903	924	876	935	923	861	993	1,031	1,088
	F	375	420	433	350	388	377	316	384	413	434
S.M.R.	M	86	96	98	92	98	96	89	104	108	114
	F	68	76	77	61	68	65	54	65	69	72
Ulcer of stomach and duodenum (540, 541)											
Deaths	M	4,011	3,975	3,778	3,568	3,425	3,090	3,165	2,950	3,095	2,799
	F	1,467	1,542	1,564	1,461	1,473	1,473	1,540	1,455	1,597	1,542
Rate	M	188	186	176	165	158	141	143	132	137	123
	F	64	67	68	63	63	63	65	61	66	64
S.M.R.	M	96	94	89	83	79	70	71	66	68	62
	F	107	111	111	101	101	99	102	95	103	99
Appendicitis (550-553)											
Deaths	M	547	485	522	497	462	430	367	361	347	299
	F	422	360	331	302	328	271	271	284	259	257
Rate	M	26	23	24	23	21	20	17	16	15	13
	F	18	16	14	13	14	12	11	12	11	11
S.M.R.	M	80	70	75	71	65	60	51	49	47	40
	F	82	69	63	57	61	50	49	51	46	45
Nephritis and nephrosis (590-594)											
Deaths	M	2,645	2,448	2,554	2,250	2,158	1,923	2,005	1,866	1,769	1,695
	F	2,453	2,294	2,125	1,945	1,920	1,762	1,709	1,632	1,654	1,484
Rate	M	124	114	119	104	99	88	91	83	78	74
	F	107	100	92	84	82	75	72	68	69	61
S.M.R.	M	83	76	79	69	66	58	60	55	52	50
	F	76	70	64	58	57	51	49	46	46	41
Accidents, poisonings and violence (E800-E999)											
Deaths	M	12,630	12,932	12,992	12,858	13,343	13,456	13,503	13,654	13,812	14,074
	F	8,239	8,537	8,878	8,703	9,113	9,379	9,619	9,660	10,085	10,549
Rate	M	593	605	604	594	614	615	612	611	610	616
	F	358	370	383	374	390	399	406	405	419	436
S.M.R.	M	103	105	105	103	106	106	105	105	105	106
	F	112	115	118	113	117	119	120	119	122	127
Motor vehicle traffic accidents (E810-E825)											
Deaths	M	3,289	3,552	3,655	3,608	3,966	4,345	4,676	4,669	4,451	4,522
	F	1,158	1,256	1,284	1,219	1,400	1,607	1,881	1,875	1,779	1,754
Rate	M	155	166	170	167	182	199	212	209	196	198
	F	50	54	55	52	60	68	79	79	74	72
S.M.R.	M	104	112	115	112	123	133	142	140	131	132
	F	109	118	119	111	127	144	166	164	154	150

Table C56. continued

		1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Accidents in the home and residential institutions (E870.0 and 7-E936.0 and .7)											
Deaths	M	2,452	2,424	2,516	2,419	2,559	2,519	2,478	2,481	2,818	2,978
	F	4,165	4,227	4,392	4,248	4,442	4,491	4,552	4,401	4,809	5,046
Rate	M	115	113	117	112	118	115	112	111	124	130
	F	181	183	190	183	190	191	192	185	200	209
S.M.R.	M	127	125	129	122	128	125	121	120	135	141
	F	118	118	120	113	116	115	114	108	117	121
Suicide and self-inflicted injury (E970-E979)											
Deaths	M	3,178	3,080	3,198	3,170	3,175	3,116	3,058	3,025	3,264	3,307
	F	1,865	1,940	2,084	2,145	2,123	2,091	2,054	2,175	2,324	2,407
Rate	M	149	143	149	146	146	142	139	135	144	145
	F	81	84	90	92	91	89	87	91	97	99
S.M.R.	M	110	105	109	107	106	104	101	99	105	106
	F	115	119	126	129	127	124	121	127	135	140

Table C57. Death rates per 1,000 living, by sex and age, and Standardised Mortality Ratios (all ages) in standard regions, conurbations and urban and rural aggregates within regional groups, and hospital regions, 1963, England and Wales

	Males							Females						
	All ages	0-	5-	15-	45-	65 and over	S.M.R.	All ages	0-	5-	15-	45-	65 and over	S.M.R.
ENGLAND AND WALES	12.8	5.97	0.44	1.52	14.4	86.0	100	11.6	4.67	0.28	0.97	7.58	61.6	100
Urban and rural aggregates: Conurbations	12.7	6.59	0.41	1.56	15.3	88.3	105	11.5	5.05	0.28	1.01	7.64	62.2	101
<i>Areas outside conurbations:</i>														
Urban areas with populations of 100,000 and over	13.2	6.46	0.46	1.49	15.4	89.7	106	11.8	4.86	0.27	1.01	7.94	61.9	102
Urban areas with populations of 50,000 and under 100,000	12.7	5.80	0.43	1.47	14.6	86.4	100	11.5	4.26	0.25	0.93	7.57	59.7	96
Urban areas with populations under 50,000	13.5	5.44	0.44	1.51	14.3	87.0	99	12.2	4.62	0.29	0.94	7.57	61.8	100
Rural districts	12.0	5.22	0.48	1.48	12.4	79.3	90	11.1	4.16	0.30	0.93	7.24	61.2	98
NORTH OF ENGLAND	13.5	6.69	0.46	1.66	16.3	89.4	108	11.8	5.19	0.28	1.05	8.27	63.4	107
Standard regions:														
Northern	13.0	6.02	0.47	1.62	16.3	88.0	106	11.1	4.80	0.25	1.06	8.32	63.6	107
East and West Ridings	13.3	6.66	0.50	1.63	15.3	88.2	105	11.7	5.43	0.27	0.97	8.03	62.5	104
North Western	13.8	7.05	0.43	1.69	16.8	90.9	111	12.2	5.24	0.31	1.09	8.39	63.9	108
Conurbations:														
Tyneside	13.6	7.09	0.44	1.66	17.2	91.8	113	12.1	5.42	0.27	1.05	8.37	64.7	109
West Yorkshire	13.5	6.13	0.38	1.60	17.7	92.2	112	11.1	4.47	0.20	1.15	8.47	63.4	108
West Yorkshire	14.1	7.02	0.55	1.68	16.8	91.1	111	13.0	5.62	0.28	0.98	8.56	65.6	110
South East Lancashire	13.6	7.50	0.48	1.72	17.0	91.0	113	12.3	5.54	0.32	1.10	8.48	65.0	110
Merseyside	12.8	7.07	0.29	1.58	17.8	93.7	115	11.0	5.55	0.28	1.00	7.85	63.5	105
<i>Areas outside conurbations:</i>														
Urban areas with populations of 100,000 and over	13.7	7.12	0.48	1.59	16.4	91.0	110	11.7	5.21	0.31	1.09	8.28	61.1	104
Urban areas with populations of 50,000 and under 100,000	13.4	6.72	0.37	1.70	16.3	90.4	109	11.5	5.11	0.23	1.06	8.36	61.7	105
Urban areas with populations under 50,000	14.0	6.08	0.51	1.69	15.6	89.2	106	12.0	5.03	0.32	1.01	8.13	62.8	105
Rural districts	12.3	5.82	0.51	1.62	14.0	81.2	96	11.1	4.67	0.29	1.03	8.03	63.5	105
WALES AND MIDLANDS	12.3	5.98	0.45	1.55	14.7	85.9	101	10.7	4.82	0.27	0.96	7.56	61.3	101
Standard regions:														
Wales	14.3	6.67	0.47	1.70	16.4	89.4	108	11.9	5.37	0.27	0.98	8.11	63.5	106
North Midland	11.9	5.69	0.39	1.49	13.3	82.6	94	10.6	4.35	0.29	0.89	7.27	60.1	97
Midland	11.6	5.84	0.48	1.53	14.8	86.3	102	10.2	4.89	0.24	0.99	7.45	61.0	100
Conurbation:														
West Midlands	11.6	6.29	0.44	1.56	15.6	88.1	107	10.1	5.19	0.25	1.08	7.48	61.1	102
<i>Areas outside conurbations:</i>														
Urban areas with populations of 100,000 and over	12.8	6.64	0.49	1.54	16.0	89.8	109	11.3	5.18	0.29	0.99	8.03	62.9	105
Urban areas with populations of 50,000 and under 100,000	12.4	6.50	0.32	1.48	15.1	88.3	104	10.2	4.15	0.27	0.89	7.37	60.1	98
Urban areas with populations under 50,000	13.1	5.63	0.41	1.54	14.7	88.0	101	11.5	4.94	0.27	0.93	7.67	62.6	102
Rural districts	11.8	5.48	0.51	1.59	12.8	79.4	92	10.2	4.36	0.26	0.87	7.21	59.4	96
SOUTH AND EAST OF ENGLAND (excluding Greater London)	12.7	5.03	0.45	1.36	12.7	83.1	92	12.2	3.98	0.29	0.92	7.16	60.7	95
Standard regions:														
London and South Eastern (excluding Greater London)	14.3	5.09	0.49	1.42	12.7	82.2	91	13.9	4.09	0.34	0.91	7.25	60.1	94
Southern	11.8	5.34	0.43	1.27	12.9	82.3	92	11.4	4.35	0.30	0.94	7.05	59.9	94
South Western	13.6	5.28	0.38	1.44	13.4	84.7	95	12.9	4.12	0.26	0.96	7.48	62.3	99
Eastern	11.5	4.56	0.48	1.31	12.0	82.8	90	10.8	3.53	0.27	0.88	6.85	60.3	94
Urban areas with populations of 100,000 and over	13.2	5.82	0.43	1.39	14.3	88.8	101	12.4	4.34	0.23	0.96	7.64	61.6	99
Urban areas with populations of 50,000 and under 100,000	12.4	5.01	0.51	1.35	13.3	83.6	94	12.0	3.83	0.27	0.88	7.21	58.6	92
Urban areas with populations under 50,000	13.5	4.83	0.42	1.36	13.0	84.8	94	12.8	4.07	0.28	0.90	7.09	60.7	95
Rural districts	12.0	4.81	0.45	1.34	11.4	78.6	86	11.6	3.82	0.34	0.93	6.93	61.3	96
GREATER LONDON	12.5	6.22	0.38	1.49	13.8	85.7	99	11.4	4.67	0.25	0.96	7.13	60.5	96
HOSPITAL REGIONS:														
Newcastle	12.9	6.06	0.46	1.65	16.5	86.4	105	10.9	4.89	0.25	1.09	8.33	62.1	106
Leeds	13.5	6.55	0.51	1.56	15.6	90.2	107	12.5	5.12	0.26	0.95	8.32	68.0	112
Sheffield	12.1	5.91	0.40	1.55	13.9	81.8	95	10.5	4.84	0.31	0.93	7.52	58.4	97
East Anglia	12.6	4.32	0.46	1.28	12.5	93.6	99	11.9	3.48	0.28	0.77	7.07	68.1	104
North West Metropolitan	11.4	5.75	0.43	1.49	12.8	70.7	85	10.3	4.53	0.27	0.97	6.59	49.9	82
North East Metropolitan	12.3	6.08	0.44	1.43	12.8	79.7	92	10.5	4.58	0.32	0.93	6.67	51.6	84
South East Metropolitan	13.9	5.76	0.47	1.40	13.1	95.3	103	13.1	4.50	0.31	0.95	7.30	67.2	105
South West Metropolitan	12.9	5.80	0.42	1.51	13.0	84.9	96	12.8	4.14	0.25	0.94	7.10	65.3	102
Wessex	13.1	5.07	0.39	1.23	13.9	93.6	103	12.9	4.24	0.27	0.97	8.06	68.8	108
Oxford	11.2	5.46	0.43	1.28	12.3	77.1	87	10.4	4.04	0.23	0.89	6.57	54.8	87
South Western	13.7	5.12	0.37	1.46	13.7	85.4	96	13.2	3.98	0.27	0.96	7.66	64.2	102
Welsh	14.3	6.67	0.47	1.70	16.4	89.4	108	11.9	5.37	0.27	0.98	8.11	63.5	106
Birmingham	11.6	5.84	0.48	1.53	14.8	86.3	102	10.2	4.89	0.24	0.99	7.45	61.0	101
Manchester	14.3	6.89	0.46	1.73	17.0	91.6	112	12.9	5.10	0.32	1.10	8.67	66.4	112
Liverpool	12.8	6.81	0.37	1.59	17.3	95.0	115	11.0	5.11	0.27	1.06	8.26	63.1	106

Table C58. (a) Deaths from selected causes by sex and age, (b) deaths in which autopsy or operation was known to have been performed and (c) the percentage to all deaths, 1963, England and Wales

ICD No.	Cause of death		Males					Females					Persons
			All ages	0-	15-	45-	65 and over	All ages	0-	15-	45-	65 and over	
	All causes	{ number of deaths (a) autopsy or operation (b) percentage (c)	292,410 90,396 31	13,477 7,964 59	14,544 8,909 61	81,641 32,269 40	182,748 41,254 23	280,458 65,467 23	9,782 5,488 56	9,153 4,511 49	46,406 15,623 34	215,117 39,845 19	572,868 155,863 27
001-008	Tuberculosis, respiratory	(a) (b) (c)	2,022 727 36	3 2 67	196 69 35	931 351 38	892 305 34	587 205 35	2 2 100	143 50 35	233 88 38	209 65 31	2,609 932 36
010-019	Tuberculosis, other	(a) (b) (c)	169 94 56	14 5 36	44 24 55	66 38 58	45 27 60	182 99 54	17 9 53	36 19 53	52 31 60	77 40 52	351 193 55
020-029	Syphilitic Disease	(a) (b) (c)	485 249 51	2 1 50	20 11 55	157 93 59	306 144 47	335 207 62	1 3 100	6 3 50	62 36 58	266 167 63	820 456 56
056	Whooping cough	(a) (b) (c)	15 7 47	15 7 47	- - -	- - -	- - -	21 9 43	21 9 43	- - -	- - -	- - -	36 16 44
057	Meningococcal infections	(a) (b) (c)	88 69 78	73 57 78	3 2 67	7 6 86	5 4 80	58 45 78	43 32 74	7 5 71	4 4 100	4 4 100	146 114 78
080	Acute poliomyelitis	(a) (b) (c)	2 2 100	1 1 100	1 1 100	- - -	- - -	1 - -	- - -	1 - -	- - -	- - -	3 2 67
085	Measles	(a) (b) (c)	62 24 39	55 22 40	4 1 25	- - -	3 1 33	65 21 32	57 21 37	6 - -	1 - -	1 - -	127 45 35
Rem. 001-138	Other diseases classified as infective or parasitic	(a) (b) (c)	485 239 49	114 77 68	81 48 59	155 76 49	135 38 28	449 187 42	60 39 65	75 38 51	137 58 42	177 52 29	934 428 46
151	Malignant neoplasm: Stomach	(a) (b) (c)	7,744 1,598 21	- - -	245 53 22	2,965 632 21	4,534 913 20	5,937 819 14	- - -	127 26 20	1,357 241 18	4,453 552 12	13,681 2,417 18
162, 163	Trachea, bronchus, and lung	(a) (b) (c)	20,757 4,434 21	3 1 33	544 113 21	10,415 2,221 21	9,795 2,099 21	3,677 862 23	2 1 50	165 35 21	1,625 341 21	1,885 485 26	24,434 5,296 22
170	Breast	(a) (b) (c)	70 20 29	- - -	3 - -	29 9 31	38 11 29	9,442 1,613 17	- - -	783 151 19	4,271 797 19	4,388 665 15	9,512 1,633 17
171-174	Uterus	(a) (b) (c)	- - -	- - -	- - -	- - -	- - -	3,969 585 14	- - -	411 61 15	1,733 260 15	1,825 244 13	3,969 585 14
204	Leukaemia and aleukemia	(a) (b) (c)	1,511 407 27	204 49 24	270 83 31	449 140 31	588 135 23	1,319 313 24	160 35 22	189 35 19	396 114 29	574 129 22	2,830 720 25
Rem. 140-205	Other malignant and lymphatic neoplasms	(a) (b) (c)	25,110 5,860 23	278 94 34	1,436 377 26	8,089 2,129 26	15,307 3,260 21	22,880 5,130 22	173 53 31	1,279 314 25	7,171 1,674 23	14,257 3,089 22	47,990 10,990 23
260	Diabetes mellitus	(a) (b) (c)	1,371 318 23	23 16 70	74 34 46	354 112 32	920 156 17	2,433 499 21	9 5 56	52 25 48	422 135 32	1,950 334 17	3,804 817 21
330-334	Vascular lesions affecting central nervous system	(a) (b) (c)	32,264 4,250 13	38 28 74	552 365 66	6,046 1,778 29	25,628 2,079 8	48,076 5,596 12	24 19 79	509 312 61	5,660 1,719 30	41,883 3,546 8	80,340 9,846 12
420	Arteriosclerotic heart disease, including coronary disease	(a) (b) (c)	65,840 26,496 40	- - -	2,007 1,411 70	24,496 12,018 49	39,337 13,067 33	42,016 12,708 30	2 1 50	288 186 65	6,422 2,492 39	35,304 10,029 28	107,856 39,204 36
440-443	Hypertension with heart disease	(a) (b) (c)	4,082 918 22	- - -	46 29 63	924 339 37	3,112 550 18	6,201 927 15	- - -	18 9 50	656 187 29	5,527 731 13	10,283 1,845 18
410-416, 421-434	Other heart disease	(a) (b) (c)	26,703 3,616 14	49 36 73	791 452 57	3,699 1,302 35	22,164 1,826 8	42,181 4,339 10	28 22 65	717 387 54	3,643 1,095 30	37,795 2,835 8	68,884 7,955 12
444-468	Other circulatory disease	(a) (b) (c)	11,836 4,342 37	5 5 100	346 209 60	2,402 1,344 56	9,083 2,784 31	14,663 4,777 33	8 4 50	250 141 56	1,530 886 58	12,876 3,746 29	26,499 9,119 34
480-483	Influenza	(a) (b) (c)	1,442 167 12	36 18 50	62 34 55	322 68 21	1,022 47 5	1,772 123 7	29 14 48	49 18 37	192 40 21	1,502 51 3	3,214 290 9
490-493, 763	Pneumonia	(a) (b) (c)	17,346 5,306 31	2,000 1,452 73	346 200 58	2,477 1,123 45	12,523 2,531 20	19,396 4,230 22	1,474 1,011 69	296 161 54	1,559 599 38	16,065 2,459 15	36,742 9,536 26
500-502	Bronchitis	(a) (b) (c)	24,832 4,765 19	349 280 80	241 91 38	6,976 1,702 24	17,266 2,692 16	10,500 1,900 18	284 237 83	147 69 47	1,561 402 26	8,508 1,192 14	35,332 6,665 19
470-475, 510-527	Other diseases of respiratory system	(a) (b) (c)	3,651 1,808 50	136 106 78	159 89 56	1,196 669 56	2,160 944 44	1,805 579 32	108 84 78	118 50 42	354 147 42	1,225 298 24	5,456 2,367 44
540, 541	Ulcer of stomach and duodenum	(a) (b) (c)	2,799 1,790 64	3 2 67	104 83 80	841 637 76	1,851 1,068 58	1,542 884 57	3 3 100	44 33 75	264 181 69	1,231 667 54	4,341 2,674 62
543, 571, 572, 764	Gastritis, enteritis, and diarrhoea	(a) (b) (c)	1,073 615 57	304 186 61	60 44 73	212 136 64	497 249 50	1,589 819 52	212 133 63	83 54 65	242 151 62	1,052 481 46	2,662 1,434 54
590-594	Nephritis and nephrosis	(a) (b) (c)	1,695 510 30	41 18 44	317 120 38	559 199 36	778 173 22	1,484 403 27	34 16 47	189 62 33	394 129 33	967 196 23	3,179 913 29
610	Hyperplasia of prostate	(a) (b) (c)	2,479 1,059 43	- - -	1 1 100	155 108 70	2,323 950 41	- - -	- - -	- - -	- - -	- - -	2,479 1,059 43
640-689	Pregnancy, childbirth, abortion	(a) (b) (c)	- - -	- - -	- - -	- - -	- - -	243 209 86	- - -	239 206 86	4 3 75	- - -	243 209 86
750-759	Congenital malformations	(a) (b) (c)	2,783 1,690 61	2,228 1,359 61	254 182 64	203 108 53	96 61 62	2,466 1,328 54	1,937 1,040 54	166 102 61	223 99 44	140 87 62	5,249 3,018 57
Rem. 210-759	Other defined and ill-defined diseases	(a) (b) (c)	19,620 7,979 41	6,173 3,082 50	1,328 758 57	3,571 1,740 49	8,548 2,401 28	24,620 8,318 34	4,358 2,081 48	1,278 722 56	3,998 1,885 47	14,986 3,630 24	44,240 16,297 37
E810-E835	Motor vehicle accidents	(a) (b) (c)	4,589 3,814 83	464 361 78	2,300 1,904 83	1,016 662 65	809 687 85	1,762 1,496 84	215 172 80	380 306 81	451 378 84	716 630 88	6,351 5,300 83
E800-E802, E840-E862	All other accidents	(a) (b) (c)	5,990 4,455 74	828 665 81	1,527 1,186 78	1,455 1,157 80	2,182 1,447 66	6,253 4,174 67	483 407 84	355 288 81	708 585 83	4,707 2,894 61	12,243 8,629 70
E963, E970-E979	Suicide and self-inflicted injury	(a) (b) (c)	3,308 2,612 79	4 2 50	1,108 889 80	1,443 1,146 79	753 575 76	2,407 1,975 82	2 2 100	686 588 86	1,059 848 80	660 539 82	5,715 4,587 80
E964, E965, E980-E999	Homicide and operations of war	(a) (b) (c)	187 156 83	36 32 89	74 68 92	31 26 84	46 30 65	127 118 93	38 35 92	59 55 93	22 20 91	8 9 100	314 274 87

Table C59. Notification rates per 100,000 living for certain infectious diseases, by sex and age, 1963, England and Wales

	Scarlet fever		Whooping cough		Acute poliomyelitis				Measles (excluding rubella)		Diphtheria		Dysentery		Meningococcal infection	
					Paralytic		Non-paralytic									
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 1 year	11	14	472	519	0.23	-	-	-	2,452	2,616	-	-	165	159	24	16
1	48	48	528	581	0.96	0.51	-	0.51	7,645	7,545	-	-	284	253	13	7.8
2	130	128	543	605	0.75	0.26	0.25	0.26	10,132	10,314	0.25	0.26	321	280	8.5	4.0
3	215	219	514	626	0.78	-	-	0.28	10,742	11,001	0.78	-	276	251	6.5	3.9
4	276	277	493	565	0.27	-	-	0.56	11,233	11,349	0.27	-	273	239	4.3	2.5
5	278	287	297	361	0.35	0.18	0.12	-	7,418	7,418	0.41	0.37	263	254	2.4	1.8
10	52	61	46	54	0.12	0.06	-	0.06	472	496	0.58	0.18	95	80	1.7	0.85
15	10	8.7	3.1	6.1	0.06	0.06	-	-	65	73	-	-	27	46	0.98	0.70
25 and over	0.68	0.82	1.0	1.5	0.05	0.01	0.01	-	6.7	7.8	-	0.01	21	28	0.24	0.24
All ages	38	36	72	76	0.13	0.04	0.02	0.03	1,343	1,217	0.10	0.05	68	67	1.6	0.98

	Acute pneumonia (primary or influenzal)		Acute encephalitis				Enteric or typhoid fever		Paratyphoid fevers		Erysipelas		Food poisoning	
			Infective		Post-infectious									
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 5 years	66	56	0.90	0.68	1.2	1.3	0.30	0.53	1.3	1.2	0.75	0.63	27	25
5	22	19	0.90	0.52	1.6	1.0	0.40	0.58	1.5	1.2	0.75	0.52	25	15
15	15	13	0.20	0.18	0.18	0.06	0.75	0.82	0.70	0.68	1.7	2.0	12	12
45	40	25	0.07	0.03	0.02	0.03	0.34	0.31	0.41	0.33	6.7	7.4	5.7	6.1
65 and over	83	57	-	0.03	-	-	0.05	0.09	0.14	0.40	8.0	8.3	4.8	5.7
All ages	33	27	0.32	0.21	0.43	0.28	0.49	0.53	0.77	0.68	3.3	4.0	14	11

	Tuberculosis					
	Respiratory		Meninges and C.N.S.		Other	
	M	F	M	F	M	F
Under 5 years	18	15	1.1	0.74	2.0	1.7
5	13	15	0.38	0.49	2.4	2.6
15	39	38	0.36	0.39	6.4	7.6
25	53	34	0.29	0.26	8.4	8.8
45	68	18	0.14	0.16	3.7	4.2
65 and over	63	12	0.05	-	2.4	4.4
All ages	47	24	0.33	0.29	4.9	5.5

Table C60. Infant mortality rates per 1,000 live births in the neonatal, post-neonatal and other age periods and stillbirth rates per 1,000 total births, 1906 to 1963, England and Wales

Period	Total infant mortality (under 1 year)	Infant mortality per 1,000 live births* at various ages									Stillbirths and infant deaths - rates per 1,000 total births†				
		Neonatal mortality (under 4 weeks)	Early neonatal mortality (under 1 week)	Late neonatal mortality (1 week and under 4 weeks)	Post-neonatal mortality (4 weeks and under 1 year)	Early neonatal period		Post-neonatal period			Stillbirths plus infant deaths under 1 year "birth wastage"	Stillbirths (late foetal deaths, at or over 28 weeks' gestation)	Stillbirths plus infant deaths under 1 week "perinatal mortality"	Infant deaths at 1 week and over	Stillbirths plus infant deaths under 4 weeks
						Under 1 day	1 day and under 1 week	4 weeks and under 3 months	3 months and under 6 months	6 months and under 1 year					
1906-1910	117.1	40.2	24.5	15.7	76.9	11.5	13.0	22.8	22.0	32.1	-	-	-	-	-
1911-1915	108.7	39.0	24.1	14.9	69.8	11.4	12.7	20.2	19.6	30.0	-	-	-	-	-
1916-1920	90.9	37.0	23.4	13.7	53.9	11.0	12.4	18.5	14.6	22.8	-	-	-	-	-
1921-1925	74.9	33.4	21.7	11.7	41.6	10.4	11.3	12.8	11.3	17.5	-	-	-	-	-
1926-1930	67.6	31.8	21.8	9.9	35.7	10.3	11.5	10.8	9.5	15.4	-	-	-	-	-
1931-1935	61.9	31.4	22.4	9.0	30.5	10.7	11.7	9.9	8.5	12.1	100.6	41.0	62.5	38.1	71.1
1936-1940	55.3	29.2	21.5	7.7	26.0	10.4	11.2	8.8	7.8	9.4	91.7	38.5	59.2	32.5	66.6
1941-1945	49.8	26.0	18.7	7.2	23.8	9.3	9.5	8.9	7.7	7.2	78.5	30.5	48.6	29.9	55.6
1946-1950	36.3	21.1	16.2	4.9	15.2	7.9	8.4	5.8	5.0	4.4	59.5	24.0	39.8	19.6	44.6
1951-1955	26.9	18.0	15.0	3.0	8.9	7.5	7.5	3.4	3.0	2.5	49.2	23.0	37.6	11.6	40.5
1956-1960	22.6	16.2	13.8	2.4	6.5	7.5	6.3	2.6	2.1	1.8	43.6	21.4	34.9	8.7	37.2
1928	65.3	31.1	21.6	9.5	34.2	10.4	11.2	10.7	9.3	14.2	102.6	40.1	60.8	41.7	69.9
1929	73.9	32.8	22.2	10.5	41.1	10.4	11.9	11.5	10.6	19.0	111.4	40.0	61.4	50.0	71.6
1930	80.2	30.9	22.0	8.9	29.3	10.4	11.6	9.7	7.9	11.7	98.3	40.8	61.9	38.4	70.4
1931	65.7	31.5	22.1	9.5	34.2	10.4	11.7	10.8	9.2	14.2	104.5	40.9	62.1	42.4	71.2
1932	64.5	31.5	22.4	9.2	33.0	10.6	11.8	10.8	9.0	13.2	103.7	41.3	62.8	40.8	71.6
1933	62.7	32.1	22.9	9.3	30.6	11.0	11.8	9.8	8.6	12.2	102.5	41.4	63.4	39.1	72.3
1934	59.3	31.4	22.7	8.7	27.9	10.9	11.8	8.9	7.7	11.3	96.7	40.5	62.2	34.5	70.5
1935	57.0	30.4	22.0	8.4	26.6	10.7	11.3	9.1	7.7	9.8	95.4	40.7	61.9	33.5	69.9

* Rates based on related live births from 1926 to 1956.

† The births upon which these rates are based for successive calendar years are numbers registered up to 1938 inclusive, and numbers of occurrences from 1939.

Table C60 - continued

Period	Total infant mortality (under 1 year)	Infant mortality per 1,000 live births* at various ages									Stillbirths and infant deaths - rates per 1,000 total births†				
		Neonatal mortality (under 4 weeks)	Early neonatal mortality (under 1 week)	Late neonatal mortality (1 week and under 4 weeks)	Post-neonatal mortality (4 weeks and under 1 year)	Early neonatal period		Post-neonatal period			Stillbirths plus infant deaths under 1 year "birth wastage"	Stillbirths (late foetal deaths, at or over 28 weeks' gestation)	Stillbirths plus infant deaths under 1 week "perinatal mortality"	Infant deaths at 1 week and over	Stillbirths plus infant deaths under 4 weeks
						Under 1 day	1 day and under 1 week	4 weeks and under 3 months	3 months and under 6 months	6 months and under 1 year					
1936	58.7	30.2	21.9	8.2	28.5	10.7	11.3	9.3	8.3	10.9	95.9	39.7	60.8	35.2	68.7
1937	57.7	29.7	22.0	7.8	28.0	10.8	11.2	9.4	8.3	10.3	94.4	39.0	60.2	34.2	67.6
1938	52.8	28.3	21.1	7.1	24.5	10.3	10.8	8.2	7.3	9.0	88.9	38.3	58.6	30.4	65.5
1939	50.6	28.3	21.2	7.1	22.2	10.3	10.9	7.9	7.0	7.3	86.9	38.1	58.5	28.4	65.3
1940	56.8	29.6	21.3	8.3	27.2	9.8	11.5	9.3	8.2	9.7	92.5	37.2	57.7	34.7	65.7
1941	60.0	29.0	20.7	8.3	31.1	10.1	10.6	11.3	9.7	10.1	92.4	34.8	54.7	37.7	62.7
1942	50.6	27.2	19.6	7.7	23.4	9.6	10.0	8.7	7.5	7.2	81.1	33.2	52.1	29.0	59.4
1943	49.1	25.2	18.3	6.9	23.9	9.1	9.2	8.8	7.8	7.3	77.5	30.1	47.9	29.6	54.6
1944	45.4	24.4	17.5	6.9	21.1	8.8	8.8	8.0	7.0	6.1	70.9	27.6	44.5	26.3	51.1
1945	46.0	24.8	18.0	6.8	21.3	9.0	9.0	8.2	7.0	6.1	73.4	27.6	45.2	28.1	51.8
1946	42.9	24.5	17.8	6.7	18.4	8.7	9.1	7.1	6.1	5.2	66.9	27.2	44.3	22.6	50.7
1947	41.4	22.7	16.5	6.2	18.6	7.8	8.7	6.9	6.0	5.7	65.0	24.1	40.3	24.6	46.4
1948	33.9	19.7	15.6	4.1	14.2	7.8	7.9	5.5	4.8	3.9	56.8	23.2	36.5	18.4	42.5
1949	32.4	19.3	15.6	3.7	13.0	7.6	8.0	4.8	4.4	3.8	54.6	22.7	36.0	16.7	41.5
1950	29.6	18.5	15.2	3.3	11.1	7.2	8.0	4.3	3.7	3.1	51.7	22.6	37.4	14.3	40.7
1951	29.7	18.8	15.5	3.3	10.9	7.5	8.0	4.1	3.6	3.2	52.2	23.0	38.2	14.0	41.5
1952	27.6	18.3	15.2	3.2	9.3	7.6	7.6	3.7	3.0	2.6	49.6	22.7	37.5	12.1	40.6
1953	26.8	17.7	14.8	2.9	9.1	7.4	7.4	3.4	3.0	2.7	48.6	22.4	36.9	11.7	39.7
1954	25.4	17.7	14.9	2.8	7.7	7.6	7.4	3.0	2.6	2.1	48.4	23.5	38.1	10.3	40.8
1955	24.9	17.3	14.6	2.6	7.6	7.6	7.0	2.9	2.6	2.1	47.5	23.2	37.4	10.0	40.0
1956	23.7	16.8	14.2	2.6	6.9	7.4	6.8	2.7	2.3	1.8	46.0	22.9	36.7	9.2	39.3
1957	23.1	16.5	14.1	2.4	6.7	7.6	6.5	2.6	2.1	1.9	45.1	22.5	36.2	8.8	38.5
1958	22.5	16.2	13.8	2.4	6.4	7.5	6.3	2.6	2.1	1.7	43.6	21.5	35.0	8.6	37.3
1959	22.2	15.9	13.6	2.3	6.3	7.6	6.0	2.4	2.1	1.8	42.6	20.8	34.1	8.5	36.3
1960	21.8	15.5	13.3	2.2	6.3	7.5	5.8	2.5	2.1	1.6	41.1	19.8	32.8	8.3	35.0
1961	21.4	15.3	13.3	2.1	6.1	7.6	5.7	2.4	2.0	1.7	40.0	19.0	32.0	8.0	34.1
1962	21.7	15.1	13.0	2.1	6.6	7.4	5.6	2.5	2.3	1.8	39.4	18.1	30.8	8.5	32.9
1963	21.1	14.3	12.3	2.0	6.9	7.2	5.1	2.7	2.4	1.8	38.0	17.2	29.3	8.7	31.3

* Rates based on related live births from 1926 to 1956.

† The births upon which these rates are based for successive calendar years are numbers registered up to 1938 inclusive, and numbers of occurrences from 1939.

Table C61. Stillbirth rates per 1,000 total births, and infant mortality per 1,000 live births* in the early neonatal, late neonatal and post-neonatal periods, distinguishing illegitimacy, 1936 to 1963, England and Wales

		1936	1940	1945	1950	1955	1958	1959	1960	1961	1962	1963	
		to 1939	to 1944	to 1949	to 1954	to 1959							
All infants	Stillbirths (late foetal deaths at or over 28 weeks' gestation)	Annual rate per cent of 1936-39	38.8 100	32.3 83	24.9 64	22.8 59	22.1 57	21.5 55	20.8 54	19.8 51	19.0 49	18.1 47	17.2 44
	Early neonatal deaths (Under 1 week)	Annual rate per cent of 1936-39	21.6 100	19.3 89	16.7 77	15.1 70	14.0 65	13.8 64	13.6 63	13.3 62	13.3 62	13.0 60	12.3 57
	Late neonatal deaths (1 week and under 4 weeks)	Annual rate per cent of 1936-39	7.6 100	7.5 99	5.5 72	3.1 41	2.5 33	2.4 32	2.3 30	2.2 29	2.1 28	2.1 28	2.0 26
	Post-neonatal deaths (4 weeks and under 1 year)	Annual rate per cent of 1936-39	25.8 100	25.1 97	17.1 66	9.6 37	6.7 26	6.4 25	6.3 24	6.3 24	6.1 24	6.6 26	6.9 27
Illegitimate infants	Stillbirths (late foetal deaths at or over 28 weeks' gestation)	Annual rate per cent of 1936-39	49.6 100	39.9 80	31.4 63	29.9 60	28.4 57	28.4 57	27.4 55	24.9 50	24.2 49	22.7 46	20.5 41
	Early neonatal deaths (under 1 week)	Annual rate per cent of 1936-39	34.4 100	28.1 82	23.7 69	20.7 60	19.1 56	18.3 53	18.2 53	17.0 49	17.5 51	18.0 52	17.0 49
	Late neonatal deaths (1 week and under 4 weeks)	Annual rate per cent of 1936-39	10.9 100	10.7 98	8.3 76	3.9 36	2.7 25	2.3 21	2.5 23	2.6 24	2.0 18	2.4 22	2.2 20
	Post-neonatal deaths (4 weeks and under 1 year)	Annual rate per cent of 1936-39	41.6 100	35.8 86	23.5 56	11.1 27	7.2 17	7.2 17	6.7 16	6.9 17	5.8 14	6.8 16	6.8 16

* Rates prior to 1957 per 1,000 related live births.

Table C62. Principal causes of death under 1 year, age-group distribution per cent of all deaths assigned to each cause, cause distribution per 1,000 total deaths in each age-group, 1963, England and Wales

Aetiological group	Cause of death (and ICD No.)	Number of Infant deaths (under 1 year)	Age distribution per cent of total infant deaths assigned to each cause					Cause distribution per 1,000 total infant deaths in each age group				
			Infant mortality (under 1 year)	Neonatal mortality			Post-neonatal mortality (4 weeks and under 1 year)	Infant mortality (under 1 year)	Neonatal mortality			Post-neonatal mortality (4 weeks and under 1 year)
				Under 4 weeks	Early (under 1 week)	Late (1 week and under 4 weeks)			Under 4 weeks	Early (under 1 week)	Late (1 week and under 4 weeks)	
	All causes	18,042	100	67	58	9	33	1,000	1,000	1,000	1,000	1,000
Prenatal and natal group (including congenital malformations)	Congenital malformations (750-759)	3,583	100	85	44	21	35	199	191	150	448	214
	Total causes mainly of prenatal and natal origin other than congenital malformations	8,573	100	99	96	3	1	475	698	781	177	13
	Intracranial and spinal injury at birth (760)	1,403	100	100	94	6	-	78	115	126	51	-
	Other birth injury (including maternal antepartum haemorrhage) (761)	540	100	100	99	1	-	30	44	51	2	-
	Postnatal asphyxia and atelectasis (762)	2,513	100	99	97	2	1	139	204	232	32	4
	Attributed to maternal toxæmia (769)	191	100	98	94	4	2	11	15	17	4	1
	Erythroblastosis (770)	342	100	99	93	6	1	19	28	30	13	1
	Haemorrhagic disease of newborn (771)	218	100	99	89	10	1	12	18	18	13	1
	Ill-defined diseases of early infancy (773)	517	100	97	94	3	3	29	41	46	11	3
	Immaturity alone, or primary to diseases other than of early infancy (774, 776)	2,849	100	99	96	3	1	158	232	261	53	4
Postnatal group	Total causes mainly of postnatal origin	4,878	100	21	10	11	79	270	85	48	315	658
	Causes classified as infective (001-138) and others mainly infective in origin (340, 391-393, 470-483, 518, 519, 690-698, 765-768)	555	100	26	10	16	74	31	12	5	53	70
	Septicaemia, skin and subcutaneous tissue infections and sepsis of newborn (053, 690-698, 765-768)	107	100	76	32	44	24	6	7	3	28	4
	Whooping cough and measles (056, 085)	53	100	2	-	2	98	3	-	-	1	9
	Meningococcal infections and non-meningococcal meningitis (057, 340)	200	100	23	10	13	78	11	4	2	16	28
	Causes classified as infective not specified above (rem. 001-138)	57	100	14	4	11	86	3	1	-	4	8
	Otitis media and mastoiditis, empyema and pleurisy (391-393, 518, 519)	67	100	7	1	6	93	4	-	-	2	11
	Acute upper respiratory infections and influenza (470-475, 480-483)	71	100	7	1	6	93	4	-	-	2	11
	Pneumonia and bronchitis (490-493, 763, 500-502)	3,321	100	21	11	10	79	184	57	34	207	447
	Gastro-enteritis (including diarrhoea of newborn) (571, 764)	397	100	16	1	15	84	22	5	-	36	57
Unclassified	Accidental mechanical suffocation from vomit, food, foreign body, or in cot (E921-E925)	396	100	7	2	5	93	22	2	1	13	63
	Lack of care, neglect (including foundlings), infanticide (E926, E980-E985)	89	100	81	80	1	19	5	6	7	1	3
	Other violent causes (rem. E800-E999)	120	100	17	9	8	83	7	2	1	6	7
	Total causes remaining	1,008	100	32	22	10	68	56	26	21	60	117
Immaturity, or with mention of immaturity (774, 776, 780.5-773.5)	Neoplasms (140-239)	92	100	23	12	11	77	5	2	1	6	12
	Other remaining causes	916	100	33	23	10	67	51	25	20	54	105
All other causes	Immaturity alone, or primary to diseases other than of early infancy (774, 776)	2,849	100	99	96	3	1	158	232	261	53	4
	Immaturity associated with diseases of early infancy (780.5-773.5)	3,397	100	100	96	4	-	188	278	309	87	1
	Total	11,796	100	50	38	12	50	654	489	430	880	995

Table C63. Principal causes of death under 1 year in the neonatal, post-natal and other age periods, by sex, per 1,000 live births, 1963, England and Wales

Aetiological group	Cause of death (and ICD No.)	Infant mortality per 1,000 live births									
		Total infant mortality (under 1 year)	Neonatal mortality (under 4 weeks)	Early neonatal mortality (under 1 week)	Late neonatal mortality (1 week and under 4 weeks)	Post-neonatal mortality (4 weeks and under 1 year)	Early neo-natal period		Post-neonatal period		
							Under 1 day	1 day and under 1 week	4 weeks and under 3 months	3 months and under 6 months	6 months and under 1 year
	All causes	{ M 23.72 F 18.39	16.19 12.20	14.06 10.42	2.13 1.78	7.53 6.18	8.01 6.39	6.05 4.03	3.04 2.31	2.62 2.18	1.86 1.69
100 Prenatal and natal group (including congenital malformations)	Congenital malformations (750-759)	{ M 4.33 F 4.05	2.85 2.59	1.97 1.72	0.88 0.87	1.48 1.46	0.90 0.85	1.07 0.87	0.71 0.70	0.46 0.42	0.31 0.35
	Total causes mainly of prenatal and natal origin other than congenital malformations	{ M 11.63 F 8.36	11.52 8.29	11.14 7.98	0.39 0.31	0.10 0.07	6.76 5.20	4.37 2.78	0.08 0.05	0.02 0.01	0.01 0.01
	Intracranial and spinal injury at birth (760)	{ M 1.94 F 1.33	1.94 1.33	1.82 1.25	0.12 0.08	- -	0.93 0.70	0.89 0.55	- -	- -	- -
	Other birth injury (including maternal antepartum haemorrhage) (761)	{ M 0.73 F 0.53	0.73 0.53	0.73 0.52	0.00 0.00	0.00 -	0.55 0.40	0.18 0.12	0.00 -	- -	- -
	Postnatal asphyxia and atelectasis (762)	{ M 3.49 F 2.37	3.46 2.34	3.38 2.30	0.08 0.04	0.03 0.03	1.97 1.45	1.41 0.84	0.02 0.02	0.01 0.00	0.00 0.00
	Attributed to maternal toxæmia (769)	{ M 0.28 F 0.19	0.25 0.19	0.24 0.18	0.01 0.01	0.01 0.00	0.15 0.12	0.10 0.08	- 0.00	0.01 -	- -
	Erythroblastosis (770)	{ M 0.44 F 0.36	0.44 0.35	0.40 0.34	0.03 0.01	0.01 0.00	0.28 0.27	0.14 0.07	0.00 -	0.00 -	0.00 0.00
	Haemorrhagic disease of newborn (771)	{ M 0.29 F 0.22	0.28 0.22	0.28 0.19	0.02 0.03	0.01 -	0.05 0.07	0.21 0.12	0.00 -	0.00 -	- -
	Ill-defined diseases of early infancy (773)	{ M 0.77 F 0.43	0.75 0.42	0.73 0.40	0.03 0.02	0.02 0.01	0.37 0.20	0.36 0.19	0.02 0.01	0.00 0.01	- -
	Immaturity alone, or primary to diseases other than of early infancy (774, 776)	{ M 3.70 F 2.95	3.67 2.93	3.58 2.81	0.09 0.12	0.03 0.02	2.49 1.99	1.10 0.82	0.03 0.02	- -	- -
101 Postnatal group	Total causes mainly of postnatal origin	{ M 6.43 F 4.95	1.39 1.01	0.68 0.49	0.71 0.52	5.04 3.95	0.20 0.18	0.48 0.31	1.91 1.34	1.85 1.53	1.28 1.08
	Causes classified as infective (001-138) and others mainly infective in origin (340, 391-393, 470-483, 518, 519, 690-698, 765-768)	{ M 0.70 F 0.59	0.19 0.15	0.08 0.06	0.11 0.10	0.52 0.44	0.01 0.01	0.07 0.05	0.17 0.13	0.16 0.16	0.18 0.14
	Pneumonia and bronchitis (490-493, 763, 500-502)	{ M 4.40 F 3.35	0.95 0.68	0.49 0.32	0.45 0.35	3.45 2.67	0.10 0.09	0.40 0.24	1.35 0.96	1.33 1.03	0.78 0.69
	Gastro-enteritis (including diarrhoea of newborn) (571, 764)	{ M 0.55 F 0.38	0.09 0.06	0.00 0.00	0.09 0.05	0.45 0.32	- -	0.00 0.00	0.16 0.11	0.13 0.13	0.16 0.08
	Accidental mechanical suffocation from vomit, food, foreign body, or in cot (E921-E925)	{ M 0.52 F 0.40	0.04 0.02	0.01 0.01	0.03 0.01	0.48 0.34	0.00 -	0.00 0.01	0.20 0.11	0.20 0.15	0.08 0.11
	Lack of care, neglect (including foundlings), infanticide (E926, E980-E985)	{ M 0.11 F 0.10	0.09 0.08	0.09 0.08	0.00 -	0.02 0.02	0.08 0.07	0.01 0.00	0.01 0.00	0.00 0.01	0.00 0.01
	Other violent causes (rem. E800-E999)	{ M 0.15 F 0.13	0.03 0.02	0.01 0.02	0.02 0.00	0.12 0.11	0.01 0.01	- 0.00	0.02 0.02	0.02 0.04	0.08 0.05
	Total causes remaining	{ M 1.33 F 1.02	0.43 0.32	0.28 0.24	0.15 0.08	0.90 0.71	0.15 0.16	0.13 0.07	0.35 0.22	0.29 0.23	0.26 0.26
101 Unclassified	Neoplasms (140-239)	{ M 0.12 F 0.10	0.03 0.02	0.02 0.01	0.02 0.01	0.09 0.08	0.01 0.00	0.01 0.00	0.03 0.02	0.02 0.01	0.04 0.04
	Other remaining causes	{ M 1.21 F 0.93	0.40 0.30	0.26 0.23	0.14 0.07	0.81 0.63	0.14 0.16	0.12 0.07	0.32 0.20	0.27 0.21	0.22 0.21
	Immaturity, or with mention of immaturity (774, 776, 760.5-773.5)	{ M 8.38 F 6.19	8.34 6.16	8.05 5.90	0.29 0.26	0.04 0.03	5.05 3.81	3.01 2.08	0.04 0.03	0.00 -	0.00 -
	Immaturity alone, or primary to diseases other than of early infancy (774, 776)	{ M 3.70 F 2.95	3.67 2.93	3.58 2.81	0.09 0.12	0.03 0.02	2.49 1.99	1.10 0.82	0.03 0.02	- -	- -
	Immaturity associated with diseases of early infancy (760.5-773.5)	{ M 4.68 F 3.24	4.66 3.24	4.47 3.09	0.19 0.15	0.01 0.00	2.56 1.83	1.91 1.26	0.01 0.00	0.00 -	0.00 -
	All other causes	{ M 15.34 F 12.20	7.86 6.04	6.01 4.52	1.85 1.52	7.49 6.16	2.97 2.58	3.04 1.95	3.01 2.28	2.62 2.18	1.86 1.69

Table C64. Infant mortality rates per 1,000 live births for principal causes and at certain ages, and stillbirth rates per 1,000 total births, by quarters and quarterly percentages of the annual rates, 1963, England and Wales

Aetiological group	Cause of death (and ICD No.)	Annual rates (per 1,000 live births)	Quarterly rates				Quarterly rates per cent of annual rates			
			Jan. to March	April to June	July to Sept.	Oct. to Dec.	Jan. to March	April to June	July to Sept.	Oct. to Dec.
Stillbirths (late foetal deaths at or over 28 weeks' gestation)		17.25	18.12	16.76	16.41	17.71	105	97	95	103
Early neonatal deaths (infant deaths at ages under 1 week)		12.29	12.58	12.16	12.04	12.39	102	99	98	101
Late neonatal deaths (infant deaths at ages 1 week and under 4 weeks)		1.96	2.32	1.86	1.67	1.99	118	95	85	102
Post-neonatal deaths (infant deaths at 4 weeks and under 1 year)		6.87	9.46	5.37	4.88	7.80	138	78	71	114
Infant deaths (total under 1 year)		21.13	24.36	19.40	18.59	22.18	115	92	88	105
Prenatal and natal group (including congenital malformations)	Congenital malformations (750-759)	4.20	4.38	4.04	4.04	4.33	104	96	96	103
	Total causes mainly of prenatal and natal origin, other than congenital malformations	10.04	10.36	9.98	9.63	10.18	103	99	96	101
	Intracranial and spinal injury at birth (760)	1.64	1.78	1.67	1.47	1.65	109	102	90	101
	Other birth injury (including maternal antepartum haemorrhage) (761)	0.63	0.64	0.62	0.65	0.62	102	98	103	98
	Postnatal asphyxia and atelectasis (762)	2.94	3.01	2.92	2.86	2.99	102	99	97	102
	Attributed to maternal toxæmia (769)	0.22	0.24	0.23	0.19	0.23	109	105	86	105
	Erythroblastosis (770)	0.40	0.48	0.35	0.37	0.40	120	88	93	100
	Haemorrhagic disease of newborn (771)	0.26	0.33	0.24	0.20	0.24	127	92	77	92
	Ill-defined diseases of early infancy (773)	0.61	0.68	0.57	0.56	0.62	111	93	92	102
	Immaturity alone, or primary to diseases other than of early infancy (774, 776)	3.34	3.21	3.39	3.33	3.42	96	101	100	102
Total causes mainly of postnatal origin		5.71	8.33	4.35	3.83	6.34	146	76	67	111
Postnatal group	Causes classified as infective (001-138); others mainly infective in origin (340, 391-393, 470-483, 518, 519, 690-698, 765-768)	0.65	0.95	0.47	0.50	0.67	146	72	77	103
	Pneumonia and bronchitis (490-493, 763, 500-502)	3.89	5.81	2.94	2.35	4.46	149	76	60	115
	Gastro-enteritis and diarrhoea of the newborn (571, 764)	0.46	0.69	0.31	0.40	0.46	150	67	87	100
	Accidental mechanical suffocation from vomit, food, foreign body, or in cot (E921-E925)	0.46	0.61	0.36	0.40	0.49	133	78	87	107
	Lack of care, neglect (including foundlings), infanticide (E926, E980-E985)	0.10	0.08	0.15	0.08	0.10	80	50	80	100
	Other violent causes (rem. E800-E999)	0.14	0.18	0.11	0.11	0.16	129	79	79	114
	Total causes remaining	1.18	1.29	1.03	1.09	1.33	109	87	92	113
Unclassified	Neoplasms (140-239)	0.11	0.10	0.13	0.10	0.10	91	118	91	91
	Other remaining causes	1.18	1.29	1.03	1.09	1.33	109	87	92	113
Immaturity, or with mention of immaturity (774, 776, 760.5-773.5)		7.31	7.25	7.20	7.15	7.68	99	98	98	105
Immaturity alone, or primary to diseases other than of early infancy (774, 776)		3.34	3.21	3.39	3.33	3.42	96	101	100	102
Immaturity associated with diseases of early infancy (760.5-773.5)		3.98	4.04	3.81	3.82	4.25	102	96	96	107
All other causes		13.81	17.11	12.20	11.44	14.50	124	88	83	105

Table C65. Infant mortality rates at various ages, and combined stillbirth and infant mortality rates in standard regions, conurbations, urban and rural aggregates within regional groups and hospital regions, 1963, England and Wales

	Infant mortality per 1,000 live births										Stillbirths and infant deaths. Rates per 1,000 total births				
	Total infant mortality (under 1 year)	Neonatal mortality (under 4 weeks)	Early neonatal mortality (under 1 week)	Late neonatal mortality (1 week and under 4 weeks)	Post-neonatal mortality (4 weeks and under 1 year)	Early neo-natal period		Post-neonatal period			Stillbirths plus infant deaths under 1 year	Stillbirths (late foetal deaths at or over 28 weeks' gestation)	Stillbirths plus infant deaths under 1 week	Infant deaths at 1 week and over	Stillbirths plus infant deaths under 4 weeks
						Under 1 day	1 day and under 1 week	4 weeks and under 3 months	3 months and under 6 months	6 months and under 1 year					
ENGLAND AND WALES	21.13	14.25	12.29	1.96	6.87	7.22	5.07	2.68	2.41	1.78	38.01	17.25	29.33	8.68	31.26
Urban and rural aggregates	22.26	14.74	12.70	2.04	7.52	7.74	4.97	2.98	2.59	1.94	39.01	17.12	29.61	9.40	31.61
Conurbations	22.19	14.92	12.84	2.08	7.27	7.82	5.02	2.87	2.69	1.71	39.68	17.89	30.50	9.19	32.54
Areas outside conurbations:															
Urban areas with populations of 100,000 and over	20.88	13.98	11.98	2.00	6.90	6.94	5.04	2.80	2.48	1.63	37.83	17.30	29.08	8.75	31.04
Urban areas with populations of 50,000 and under 100,000	20.38	13.99	11.90	2.09	6.39	6.68	5.21	2.34	2.28	1.77	37.91	17.90	29.59	8.33	31.64
Urban areas with populations under 50,000	19.20	13.31	11.72	1.59	5.89	6.57	5.15	2.31	1.97	1.61	35.25	16.37	27.89	7.36	29.46
Rural districts	24.26	15.99	13.85	2.13	8.27	8.23	5.63	3.17	3.05	2.05	42.57	18.76	32.36	10.21	34.45
NORTH OF ENGLAND															
Standard regions:															
Northern	22.73	15.84	13.87	1.97	6.89	8.51	5.36	2.52	2.74	1.63	41.46	19.17	32.77	8.69	34.71
East and West Ridings	24.25	15.63	13.21	2.42	8.62	7.79	5.42	3.32	3.15	2.15	41.43	17.61	30.59	10.84	32.96
North Western	25.01	16.27	14.24	2.04	8.73	8.35	5.88	3.39	3.15	2.20	43.80	19.28	33.24	10.56	35.24
Conurbations:															
Tyneside	25.14	16.28	14.11	2.17	8.86	8.57	5.55	3.46	3.13	2.27	43.46	18.79	32.64	10.82	34.77
West Yorkshire	21.74	14.82	12.83	1.99	6.93	7.31	5.52	2.63	2.31	1.99	41.30	19.99	32.56	8.74	34.51
South East Lancashire	25.40	16.78	14.20	2.58	8.62	8.71	5.49	3.29	3.16	2.17	42.18	17.22	31.17	11.01	33.71
Merseyside	25.40	16.28	14.30	1.98	9.12	8.71	5.59	3.70	3.03	2.39	43.72	18.80	32.83	10.89	34.78
Areas outside conurbations:															
Urban areas with populations of 100,000 and over	28.29	16.53	14.41	2.12	9.76	8.85	5.56	3.72	3.68	2.36	45.61	19.84	33.97	11.64	36.04
Urban areas with populations of 50,000 and under 100,000	25.42	16.66	14.24	2.42	8.75	8.24	6.01	3.71	3.13	1.91	43.82	18.88	32.86	10.96	35.23
Urban areas with populations under 50,000	25.60	16.79	14.71	2.08	8.82	8.28	6.42	3.54	3.37	1.90	43.86	18.74	33.17	10.69	35.21
Rural districts	22.69	15.47	13.20	2.27	7.22	7.81	5.39	2.41	2.96	1.85	41.33	19.07	32.02	9.30	34.25
Wales and Midlands	21.54	14.58	12.98	1.80	6.96	7.59	5.39	2.51	2.65	1.80	39.28	18.13	30.87	8.40	32.44
WALES AND MIDLANDS	21.36	14.29	12.25	2.04	7.07	6.96	5.29	2.66	2.52	1.89	39.38	18.41	30.44	8.94	32.44
Standard regions:															
Wales	24.58	16.82	14.16	2.66	7.76	6.99	7.16	3.10	2.81	1.85	43.97	19.88	33.76	10.21	36.36
North Midland	19.81	12.88	11.40	1.48	6.93	6.83	4.57	2.39	2.55	2.00	36.70	17.23	28.44	8.26	29.89
Midland	20.89	14.06	11.91	2.15	6.83	7.04	4.87	2.63	2.35	1.84	39.05	18.55	30.24	8.81	32.35
Conurbation:															
West Midlands	21.79	13.96	11.76	2.20	7.83	6.92	4.83	3.15	2.57	2.11	40.44	19.07	30.60	9.84	32.76
Areas outside conurbation:															
Urban areas with populations of 100,000 and over	22.54	15.08	13.09	1.99	7.46	8.21	4.88	2.79	2.97	1.70	40.94	18.83	31.67	9.27	33.62
Urban areas with populations of 50,000 and under 100,000	21.64	14.87	12.77	2.10	6.77	6.89	5.87	2.70	2.34	1.74	40.62	19.40	31.92	8.70	33.96
Urban areas with populations under 50,000	21.21	14.23	12.13	2.10	6.98	6.28	5.85	2.57	2.49	1.92	39.56	18.75	30.65	8.91	32.72
Rural districts	20.19	13.88	12.02	1.86	6.31	6.80	5.22	2.22	2.24	1.86	36.75	16.90	28.71	8.03	30.54

Table C65. - continued

	Infant mortality per 1,000 live births										Stillbirths and infant deaths. Rates per 1,000 total births				
	Total infant mortality (under 1 year)	Neonatal mortality (under 4 weeks)	Early neonatal mortality (under 1 week)	Late neonatal mortality (1 week and under 4 weeks)	Post-neonatal mortality (4 weeks and under 1 year)	Early neonatal period		Post-neonatal period			Stillbirths plus infant deaths under 1 year	Stillbirths (late foetal deaths at or over 28 weeks' gestation)	Stillbirths plus infant deaths under 1 week	Infant deaths at 1 week and over	Stillbirths plus infant deaths under 4 weeks
						Under 1 day	1 day and under 1 week	4 weeks and under 3 months	3 months and under 6 months	6 months and under 1 year					
SOUTH AND EAST OF ENGLAND (excluding Greater London)	18.15	12.65	10.90	1.75	5.50	6.31	4.59	2.27	1.75	1.48	33.73	15.86	26.59	7.14	28.31
Standard regions:															
London and South Eastern (excluding Greater London)	18.54	12.80	11.05	1.75	5.74	6.57	4.48	2.34	1.85	1.55	33.96	15.71	26.58	7.37	28.31
Southern	19.15	13.06	11.43	1.64	6.09	6.94	4.49	2.74	1.73	1.62	34.16	15.30	26.55	7.61	28.16
South Western	18.64	13.03	11.07	1.96	5.61	6.70	4.36	2.29	1.81	1.51	34.55	16.21	27.10	7.44	28.03
Eastern	16.70	11.90	10.24	1.66	4.80	5.29	4.95	1.83	1.65	1.31	32.54	16.11	26.19	6.36	27.82
Urban areas with populations of 100,000 and over	19.63	13.55	11.63	1.92	6.08	7.18	4.45	2.35	2.15	1.58	35.68	16.37	27.82	7.66	29.70
Urban areas with populations of 50,000 and under 100,000	17.96	12.06	10.15	1.92	5.90	6.22	3.93	2.43	2.04	1.42	33.32	15.65	25.63	7.69	27.52
Urban areas with populations under 50,000	18.02	12.71	10.76	1.95	5.31	6.18	4.58	2.11	1.61	1.60	34.08	16.36	26.94	7.14	28.85
Rural districts	17.58	12.41	10.99	1.42	5.17	5.99	5.00	2.28	1.52	1.37	32.60	15.29	26.12	6.49	27.52
GREATER LONDON	20.01	13.71	11.83	1.88	6.31	7.30	4.53	2.54	2.16	1.61	34.82	15.11	26.76	8.06	28.61
HOSPITAL RECTIONS:															
Newcastle	22.92	16.02	14.02	2.01	6.90	8.64	5.38	2.52	2.77	1.61	41.86	19.38	33.13	8.73	35.10
Leeds	24.31	16.09	13.52	2.57	8.21	8.14	5.73	3.07	3.00	2.15	40.91	17.02	30.31	10.60	32.84
Sheffield	21.19	13.38	11.76	1.62	7.81	6.93	4.83	2.88	2.88	2.05	38.71	17.91	29.45	9.26	31.05
East Anglia	17.78	12.54	10.86	1.67	5.25	5.88	4.99	1.86	1.82	1.56	34.17	16.68	27.36	6.80	29.01
North West Metropolitan	18.13	12.81	11.23	1.58	5.32	6.60	4.63	2.27	1.67	1.38	33.24	15.39	26.45	6.79	28.01
North East Metropolitan	19.57	13.48	11.48	2.00	6.09	6.78	4.70	2.28	2.25	1.56	35.51	16.26	27.55	7.95	29.52
South East Metropolitan	19.73	13.42	11.59	1.83	6.31	6.84	4.75	2.50	2.11	1.70	35.68	16.27	27.67	8.01	29.48
South West Metropolitan	18.99	13.03	11.18	1.85	5.96	6.82	4.35	2.51	1.96	1.50	31.83	13.09	24.12	7.71	25.95
Wessex	19.83	13.71	11.81	1.90	6.12	7.18	4.63	2.64	1.77	1.71	35.69	16.18	27.80	7.89	29.87
Oxford	17.74	12.26	10.81	1.45	5.48	6.25	4.56	2.22	1.54	1.72	32.82	15.34	25.99	6.83	27.42
South Western	18.50	12.76	10.81	1.95	5.75	6.73	4.08	2.41	1.91	1.43	34.26	16.05	26.69	7.57	28.61
Welsh	24.58	16.82	14.16	2.66	7.76	6.99	7.16	3.10	2.81	1.85	43.97	19.88	33.76	10.21	36.36
Birmingham	20.89	14.06	11.91	2.15	6.83	7.04	4.87	2.63	2.35	1.84	39.05	18.55	30.24	8.81	32.35
Manchester	24.64	15.93	13.81	2.12	8.71	8.11	5.70	3.32	3.06	2.33	43.25	19.08	32.62	10.63	34.70
Liverpool	25.47	16.76	14.87	1.90	8.71	8.69	6.18	3.47	3.32	1.92	44.59	19.62	34.20	10.40	36.05

Table C66. Infant deaths per 1,000 live births in regional groups from the principal causes of infant mortality; regional group rates as percentages of corresponding national rates, 1963, England and Wales

Aetiological group	Cause of death (and ICD No.)	Rates per 1,000 live births					Regional group rates per cent of England and Wales rate			
		England and Wales	North of England	Wales and Midlands	South and East of England (excluding Greater London)	Greater London	North of England	Wales and Midlands	South and East of England (excluding Greater London)	Greater London
	All causes	21.13	24.26	21.36	18.15	20.01	115	101	86	95
	Congenital malformations (750-759)	4.20	4.54	3.95	4.15	4.00	108	94	99	95
	Total causes mainly of prenatal and natal origin other than congenital malformations	10.04	11.29	10.06	8.74	9.87	112	100	87	98
	Intracranial and spinal injury at birth (760)	1.64	1.88	1.85	1.32	1.47	115	113	80	90
Prenatal and natal group (including congenital malformations)	Other birth injury (including maternal antepartum haemorrhage) (761)	0.63	0.66	0.60	0.65	0.59	105	95	103	94
	Postnatal asphyxia and atelectasis (762)	2.94	3.50	2.66	2.53	3.01	119	90	86	102
	Attributed to maternal toxæmia (769)	0.22	0.17	0.20	0.30	0.23	77	91	136	105
	Erythroblastosis (770)	0.40	0.42	0.38	0.38	0.44	105	95	95	110
	Haemorrhagic disease of newborn (771)	0.26	0.30	0.21	0.24	0.27	115	81	92	104
	Ill-defined diseases of early infancy (773)	0.61	0.54	0.73	0.51	0.71	89	120	84	116
	Immaturity alone, or primary to diseases other than of early infancy (774, 776)	3.34	3.83	3.44	2.83	3.14	115	103	85	94
	Total causes mainly of postnatal origin	5.71	7.22	6.06	4.18	5.00	126	106	73	88
Postnatal group	Causes classified as infective (001-138) and others mainly infective in origin (340, 391-393, 470-483, 518, 519, 690-698, 765-768)	0.65	0.77	0.65	0.56	0.57	118	100	86	88
	Septicaemia, skin and subcutaneous tissue infections and sepsis of newborn (053, 690-698, 765-768)	0.13	0.15	0.11	0.13	0.10	115	85	100	77
	Whooping cough and measles (056, 085)	0.06	0.10	0.07	0.03	0.03	167	117	50	50
	Meningococcal infections and non-meningococcal meningitis (057, 340)	0.23	0.25	0.25	0.20	0.23	109	109	87	100

Table C66 - continued

Aetiological group	Cause of death (and ICD No.)	Rates per 1,000 live births					Regional group rates per cent of England and Wales rate			
		England and Wales	North of England	Wales and Midlands	South and East of England (excluding Greater London)	Greater London	North of England	Wales and Midlands	South and East of England (excluding Greater London)	Greater London
Postnatal group-(contd.)	Causes classified as infective not specified above (rem. 001-138)	0.07	0.09	0.06	0.05	0.07	129	86	71	100
	Otitis media and mastoiditis, empyema and pleurisy (391-393, 518, 519)	0.08	0.08	0.07	0.09	0.05	100	88	112	62
	Acute upper respiratory infections, and influenza (470-475, 480-483)	0.08	0.10	0.09	0.06	0.09	125	112	75	112
	Pneumonia and bronchitis (490-493, 763, 500-502)	3.89	5.03	4.03	2.61	3.71	129	104	67	95
	Gastro-enteritis (including diarrhoea of newborn) (571, 764)	0.46	0.64	0.57	0.24	0.36	139	124	52	78
	Accidental mechanical suffocation from vomit, food, foreign body, or in cot (E921-E925)	0.46	0.53	0.53	0.53	0.15	115	115	115	33
	Lack of care, neglect (including foundlings), infanticide (E926, E980-E985)	0.10	0.11	0.11	0.10	0.10	110	110	100	100
Other violent causes (rem. E800-E999)	0.14	0.14	0.17	0.14	0.10	100	121	100	71	
	Total causes remaining	1.18	1.21	1.29	1.08	1.14	103	109	92	97
Unclassified	Neoplasms (140-239)	0.11	0.11	0.09	0.11	0.14	100	82	100	127
	Other remaining causes	1.07	1.10	1.20	0.97	1.00	103	112	91	93
	Immaturity, or with mention of immaturity (774, 776, 760.5-773.5)	7.31	8.37	7.24	6.23	7.29	114	99	85	100
	Immaturity alone, or primary to diseases other than of early infancy (774, 776)	3.34	3.83	3.44	2.83	3.14	115	103	85	94
	Immaturity associated with diseases of early infancy (760.5-773.5)	3.98	4.54	3.80	3.40	4.15	114	95	85	104
	All other causes	13.81	15.89	14.12	11.92	12.72	115	102	86	92

Table C67. Trend of stillbirths, per 1,000 total births, and of deaths in the neonatal, and post-neonatal periods per 1,000 live births, in standard regions, 1959 to 1963, England and Wales

		Rates in each year 1959 to 1963					Rates in 1960 to 1963 per cent of rate in 1959			
		1959	1960	1961	1962	1963	1960	1961	1962	1963
Stillbirths (at or over 28 weeks' gestation) per 1,000 total births	ENGLAND AND WALES	20.8	19.8	19.0	18.1	17.2	95	91	87	83
	NORTH OF ENGLAND	22.3	21.9	21.0	19.5	18.8	98	94	87	84
	Northern	22.4	22.3	21.7	19.6	19.2	100	97	88	86
	East and West Ridings	20.9	20.9	20.1	18.4	17.6	100	96	88	84
	North Western	23.2	22.3	21.2	19.9	19.3	96	91	86	83
	WALES AND MIDLANDS	23.1	21.4	20.4	19.8	18.4	93	88	86	80
	Wales	26.3	23.6	22.4	22.0	19.9	90	85	84	76
	North Midland	21.2	20.6	19.6	18.7	17.2	97	92	88	81
	Midland	22.9	20.9	19.9	19.5	18.5	91	87	85	81
	SOUTH AND EAST OF ENGLAND (excluding Greater London)	18.7	17.5	17.0	16.2	15.9	94	91	87	85
	London and South Eastern (excluding Greater London)	18.6	17.1	16.3	15.7	15.7	92	88	84	84
	Southern	18.1	16.2	16.2	15.5	15.3	90	90	86	85
	South Western	19.7	18.3	18.3	17.8	16.2	93	93	90	82
Eastern	18.5	17.9	17.1	15.7	16.1	97	92	85	87	
GREATER LONDON	17.9	17.1	16.6	16.3	15.1	96	93	91	84	
Neonatal mortality per 1,000 live births	ENGLAND AND WALES	15.9	15.5	15.3	15.1	14.3	97	96	95	90
	NORTH OF ENGLAND	17.5	17.1	16.9	16.8	16.0	98	97	96	91
	Northern	18.0	17.4	16.5	16.8	15.8	97	92	93	88
	East and West Ridings	16.7	16.0	16.4	15.9	15.6	96	98	95	93
	North Western	17.8	17.6	17.4	17.3	16.3	99	98	97	92
	WALES AND MIDLANDS	16.8	16.1	15.6	15.4	14.3	96	93	92	85
	Wales	19.6	18.7	17.5	16.9	16.8	95	89	86	86
	North Midland	15.2	14.8	14.4	14.6	12.9	97	95	96	85
	Midland	16.6	15.8	15.6	15.2	14.1	95	94	92	85
	SOUTH AND EAST OF ENGLAND (excluding Greater London)	13.6	13.6	13.5	13.4	12.7	100	99	99	93
	London and South Eastern (excluding Greater London)	13.7	13.2	13.8	12.8	12.8	96	101	93	93
	Southern	13.3	13.5	13.7	13.7	13.1	102	103	103	98
	South Western	13.6	14.4	13.2	14.0	13.0	106	97	103	96
Eastern	13.6	13.3	13.3	13.0	11.9	98	98	96	88	
GREATER LONDON	15.1	14.8	15.0	14.4	13.7	98	99	95	91	
Post-neonatal mortality per 1,000 live births	ENGLAND AND WALES	6.3	6.3	6.1	6.6	6.9	100	97	105	110
	NORTH OF ENGLAND	7.4	7.7	7.4	8.0	8.3	104	100	108	112
	Northern	7.2	7.2	6.7	7.5	6.9	100	93	104	96
	East and West Ridings	7.6	7.0	7.8	7.3	8.6	92	103	96	113
	North Western	7.4	8.3	7.5	8.6	8.7	112	101	116	118
	WALES AND MIDLANDS	6.7	6.6	6.2	7.2	7.1	98	93	107	106
	Wales	6.7	6.6	6.6	8.4	7.8	98	98	125	116
	North Midland	6.7	7.0	5.6	6.8	6.9	104	84	101	103
	Midland	6.8	6.2	6.5	6.9	6.8	91	96	101	100
	SOUTH AND EAST OF ENGLAND (excluding Greater London)	5.3	5.2	5.4	5.4	5.5	98	102	102	104
	London and South Eastern (excluding Greater London)	5.4	5.3	5.4	5.7	5.7	98	100	106	106
	Southern	5.6	5.3	5.8	5.9	6.1	95	104	105	109
	South Western	5.4	4.8	5.1	5.6	5.6	89	94	104	104
Eastern	5.0	5.2	4.9	4.6	4.8	104	98	92	96	
GREATER LONDON	5.4	5.1	4.9	5.2	6.3	94	91	96	117	

Table C68. Maternal deaths from principal causes, and

ICD No.	MATERNAL DEATHS (complications of pregnancy, childbirth and puerperium, including abortion)								Total maternal causes other than abortion
	Puerperal phlebitis, thrombosis and embolism	Puerperal sepsis	Ante-partum haemorrhage	Post-partum haemorrhage	Toxaemia	Pro-longed labour	Trauma, shock: other complication of delivery	Other causes	
	682, 684	640, 641, 681	643, 644, 670	671, 672	642, 685, 686	673-675	676-678	Rem. 640-648 660-689	640-648 660-689
1931	215	712	330		494		507		2,258
1932	226	628	334		511		514		2,213
1933	206	694	310		508		533		2,251
1934	188	800	304		538		537		2,387
1935	192	647	292		488		507		2,126
1936	183	561	302		510		455		2,011
1937	152	347	307		510		457		1,773
1938	178	277	312		472		503		1,742
1939	154	248	117	179	478		467		1,643
1940	134	195	106	180	398	125	111	124	1,373
1941	134	141	101	210	381	155	109	122	1,353
1942	128	151	87	198	410	158	94	133	1,359
1943	136	132	86	187	375	165	106	112	1,299
1944	107	105	84	179	328	176	87	113	1,179
1945	86	82	68	158	321	148	72	92	1,027
1946	102	53	85	162	359	117	83	91	1,052
1947	110	33	56	156	312	110	63	77	917
1948	67	33	46	115	249	66	55	55	686
1949	56	32	38	90	199	69	60	65	609
1950	62	26	44	38	185	42	54	66	517
1951	49	16	35	53	141	38	37	50	419
1952	52	10	19	39	122	32	43	56	373
1953	49	17	39	51	143	31	34	55	419
1954	51	13	32	44	104	32	41	53	370
1955	55	17	24	41	91	31	23	57	339
1956	32	13	33	24	93	34	15	58	302
1957	32	18	27	22	77	27	23	46	272
1958	40	13	25	33	66	21	20	47	265
1959	30	17	21	23	57	18	26	51	243
1960	27	8	25	19	63	26	36	44	248
1961	24	6	20	23	55	15	32	45	220
1962	34	12	23	20	53	20	23	57	242
1963	20	8	17	21	46	9	18	55	194

*Note. Excludes the following cases in which it was stated that death followed the maternal condition after an interval of more than 12 months: 1951-40, 1952-35, 1953-32, 1954-34, 1955-34, 1956-25, 1957-16, 1958-22, 1959-21, 1960-26, 1961-11, 1962-20, 1963-24.

associated maternal deaths, 1931 to 1963, England and Wales

ICD No.	Abortion (including abortion)				Abortion all forms	Total* maternal deaths	ASSOCIATED MATERNAL DEATHS			Total attributed to, or associated with, maternal causes
	Criminal		Other				Other than abortion	With abortion	Total	
	With sepsis	Without mention of sepsis	With sepsis	Without mention of sepsis						
	651.2	650.2 652.2	Rem. 651	Rem. 650, 652	650-652	640-689				
52	27	229	140	448	2,706	834	77	911	3,617	
46	23	262	139	470	2,683	623	90	713	3,396	
56	29	257	144	486	2,737	731	97	828	3,565	
67	33	295	118	513	2,880	683	64	747	3,627	
64	30	262	108	464	2,590	638	74	712	3,302	
49	24	242	105	420	2,431	541	70	611	3,042	
56	28	176	109	369	2,142	585	104	689	2,831	
54	26	173	101	354	2,096	449	81	530	2,626	
80	28	167	79	354	1,997	429	49	478	2,475	
43	33	116	76	268	1,641	368	56	424	2,065	
66	24	145	90	325	1,678	358	47	405	2,083	
64	12	175	62	313	1,672	363	49	412	2,084	
76	15	166	64	321	1,620	437	57	494	2,114	
75	7	168	63	313	1,492	383	52	435	1,927	
65	9	109	50	233	1,260	342	19	361	1,621	
41	5	69	42	157	1,209	353	37	390	1,599	
37	3	54	49	143	1,060	264	44	308	1,368	
34	4	55	32	125	811	231	16	247	1,058	
20	9	58	31	118	727	157	19	176	903	
25	21	39	18	103	620	180	21	201	821	
33	26	34	14	107	526	151	9	160	686	
19	28	28	15	90	463	153	8	161	624	
17	24	22	13	76	495	121	7	128	623	
10	25	22	19	76	446	116	5	121	567	
17	15	19	15	66	405	108	7	115	520	
20	16	20	16	72	374	119	6	125	499	
15	15	18	13	61	333	122	6	128	461	
8	12	27	16	63	328	94	4	98	426	
13	10	16	8	47	290	75	7	82	372	
12	18	21	11	62	310	70	5	75	385	
8	15	24	7	54	274	68	3	71	345	
11	18	17	11	57	299	75	2	77	376	
15	6	17	11	49	243	61	6	67	310	

Interval of more than 12 months: 1951-40, 1952-35, 1953-32, 1954-34, 1955-34, 1956-25, 1957-16, 1958-22,

Table C69- Maternal mortality rates, distinguishing principal causes, and associated

ICD No.	MATERNAL MORTALITY RATES (complications of pregnancy, childbirth and puerperium, including abortion)								
	Puerperal phlebitis, thrombosis and embolism	Puerperal sepsis	Ante-partum haemorrhage	Post-partum haemorrhage	Toxaemia	Pro-longed labour	Trauma, shock: other complication of delivery	Other causes	Total maternal causes other than abortion
	682, 684	640, 641, 681	643, 644, 670	671, 672	642, 685, 686	673-675	676-678	Rem. 640-648 660-689	640-648 660-689
1931	33	108	50	75	77				343
1932	35	98	52	80	80				346
1933	34	115	51	84	88				372
1934	30	128	49	86	86				380
1935	31	104	47	78	81				341
1936	29	89	48	81	72				319
1937	24	55	48	80	72				279
1938	28	43	48	73	78				270
1939	24	39	18	28	75		73		257
1940	22	32	17	29	65	20	18	20	224
1941	22	24	17	35	64	26	18	20	228
1942	19	22	13	29	61	23	14	20	202
1943	19	19	12	27	53	23	15	16	184
1944	14	14	11	23	42	23	11	15	153
1945	12	12	10	23	46	21	10	13	147
1946	12	6	10	19	43	14	10	11	125
1947	12	4	6	17	35	12	7	9	102
1948	8	4	6	14	31	8	7	7	86
1949	7	4	5	12	27	9	8	9	81
1950	9	4	6	5	26	6	8	9	72
1951	7	2	5	8	20	5	5	7	60
1952	8	1	3	6	18	5	6	8	54
1953	7	2	6	7	20	4	5	8	60
1954	7	2	5	6	15	5	6	8	54
1955	8	2	4	6	13	5	3	8	50
1956	4	2	5	3	13	5	2	8	42
1957	4	2	4	3	10	4	3	6	37
1958	5	2	3	4	9	3	3	6	35
1959	4	2	3	3	7	2	3	7	32
1960	3	1	3	2	8	3	4	5	31
1961	3	1	2	3	7	2	4	5	27
1962	4	1	3	2	6	2	3	7	28
1963	2	1	2	2	5	1	3	6	22

Note. Figures for 1931 to 1938 are based on live and still birth registrations, and from 1939 onwards on

maternal mortality rates per 100,000 total births, 1931 to 1963, England and Wales

ICD No.	Abortion				Abortion all forms	Total* maternal mortality rates	ASSOCIATED MATERNAL MORTALITY RATES			Total attributed to, or associated with, maternal causes
	Criminal		Other				Other than abortion	With abortion	Total	
	With sepsis	Without mention of sepsis	With sepsis	Without mention of sepsis						
651.2	650.2	652.2	Rem. 651	Rem. 650, 652	650-652	640-689				
8	4	35	21	68	411	127	12	138	549	
7	4	41	22	73	419	97	14	111	530	
9	5	42	24	80	452	121	16	137	589	
11	5	47	19	82	462	110	10	120	582	
10	5	42	17	74	415	102	12	114	529	
8	4	38	17	67	386	86	11	97	483	
9	4	28	17	58	337	92	16	108	446	
8	4	27	16	55	324	70	13	82	407	
13	4	26	12	55	313	67	8	75	387	
7	5	19	12	44	268	60	9	69	337	
11	4	24	15	54	280	60	8	68	347	
9	2	26	9	46	248	54	7	61	309	
11	2	24	9	45	230	62	8	70	300	
10	1	22	8	41	193	50	7	56	249	
9	1	16	9	33	180	49	3	52	232	
5	1	8	5	19	143	42	4	46	190	
4	0	6	5	16	117	29	5	34	152	
4	1	7	4	16	102	29	2	31	133	
3	1	8	4	16	97	21	3	24	121	
4	3	5	3	14	87	25	3	28	115	
5	4	5	2	15	76	22	1	23	99	
3	4	4	2	13	67	22	1	23	91	
2	3	3	2	11	71	17	1	18	89	
1	4	3	3	11	65	17	1	18	82	
2	2	3	2	10	59	16	1	17	76	
3	2	3	2	10	52	17	1	17	70	
2	2	2	2	8	45	16	1	17	62	
1	2	4	2	8	43	12	1	13	56	
2	1	2	1	6	38	10	1	11	49	
1	2	3	1	8	39	9	1	9	48	
1	2	3	1	7	33	8	0	9	42	
1	2	2	1	7	35	9	0	9	44	
2	1	2	1	6	28	7	1	8	36	

occurrences.

*See footnote to Table C68.

Table C70. Maternal deaths attributed to or associated with abortion, 1931 to 1963, England and Wales

	Spontaneous or induced for therapeutic reasons		Induced for non-therapeutic reasons		Total attributed to abortion (including criminal)	Others associated with abortion	Total attributed to, or associated with, abortion	Percentage of deaths due to abortion which had mention of sepsis
	With sepsis	Without sepsis	With sepsis	Without sepsis*				
1931	229	140	52	27	448	77	525	63
1932	262	139	46	23	470	90	560	66
1933	257	144	56	29	486	97	583	64
1934	295	118	67	33	513	64	577	71
1935	262	108	64	30	464	74	538	70
1936	242	105	49	24	420	70	490	69
1937	176	109	56	28	369	104	473	63
1938	173	101	54	26	354	81	435	64
1939	167	79	80	28	354	49	403	70
1940	116	76	43	33	268	56	324	59
1941	145	90	66	24	325	47	372	65
1942	175	62	64	12	313	49	362	76
1943	166	64	76	15	321	57	379	75
1944	168	63	75	7	313	52	367	78
1945	109	50	65	9	233	19	253	75
1946	69	42	41	5	157	37	194	70
1947	54	49	37	3	143	44	184	64
1948	55	32	34	4	125	16	139	71
1949	58	31	20	9	118	19	137	66
1950	39	18	25	21	103	21	124	62
1951	34	14	33	26	107	9	116	63
1952	28	15	19	28	90	8	98	52
1953	22	13	17	24	76	7	83	51
1954	22	19	10	25	76	5	81	42
1955	19	15	17	15	66	7	75	56
1956	20	16	20	16	72	6	78	56
1957	18	13	15	15	61	6	67	54
1958	27	16	8	12	63	4	67	56
1959	16	8	13	10	47	7	54	62
1960	21	11	12	18	62	5	67	53
1961	24	7	8	15	54	3	57	59
1962	17	11	11	18	57	2	59	49
1963	17	11	15	6	49	6	55	65

* Deaths due to attempted abortion, formerly classed to accidental causes, are included for years 1950 onwards.

Table C71. Deaths assigned to pregnancy or childbearing, by age and cause, 1963, England and Wales

ICD No.	Cause of death	All ages	15-	20-	25-	30-	35-	40-	45 and over
640-648	Complications of pregnancy	93	3	21	19	21	18	9	2
640	Pyelitis and pyelonephritis of pregnancy	3	1	1	-	-	1	-	-
641	Other infections of genito-urinary tract during pregnancy	-	-	-	-	-	-	-	-
642	Toxaemias of pregnancy	43	2	11	8	5	10	6	1
643	Placenta praevia	-	-	-	-	-	-	-	-
644	Other haemorrhage of pregnancy	6	-	-	2	1	3	-	-
645	Ectopic pregnancy	16	-	-	3	9	3	1	-
646	Anaemia of pregnancy	2	-	2	-	-	-	-	-
647	Pregnancy with malposition of foetus in uterus	-	-	-	-	-	-	-	-
648	Other complications arising from pregnancy	23	-	7	6	6	1	2	1
650-652	Abortion	49	4	10	7	16	10	2	-
650	Abortion without mention of sepsis or toxaemia	14	1	3	1	4	4	1	-
651	Abortion with sepsis	32	3	7	5	11	5	1	-
652	Abortion with toxaemia, without mention of sepsis	3	-	-	1	1	1	-	-
660	Delivery without mention of complication	6	-	-	2	1	2	1	-
670-678	Delivery with specified complication	59	1	6	9	15	18	8	2
670	Delivery complicated by placenta praevia or antepartum haemorrhage	11	-	1	1	5	1	3	-
671	Delivery complicated by retained placenta	6	-	-	1	1	3	1	-
672	Delivery complicated by other post-partum haemorrhage	15	-	2	4	2	5	1	1
673	Delivery complicated by abnormality of bony pelvis	-	-	-	-	-	-	-	-
674	Delivery complicated by disproportion or malposition of foetus	3	1	1	-	-	-	1	-
675	Delivery complicated by prolonged labour of other origin	6	-	1	-	2	-	2	1
676	Delivery with laceration of perineum, without mention of other laceration	-	-	-	-	-	-	-	-
677	Delivery with other trauma	7	-	-	1	-	6	-	-
678	Delivery with other complications of childbirth	11	-	1	2	5	3	-	-
680-689	Complications of the puerperium	36	2	11	10	2	9	2	-
680	Puerperal urinary infection without other sepsis	-	-	-	-	-	-	-	-
681	Sepsis of childbirth and the puerperium	5	-	1	3	-	1	-	-
682	Puerperal phlebitis and thrombosis	15	1	4	4	1	5	-	-
683	Pyrexia of unknown origin during the puerperium	-	-	-	-	-	-	-	-
684	Puerperal pulmonary embolism	5	-	1	2	-	1	1	-
685	Puerperal eclampsia	2	-	2	-	-	-	-	-
686	Other forms of puerperal toxaemia	1	-	-	-	-	1	-	-
687	Cerebral haemorrhage in the puerperium	4	1	-	1	1	1	-	-
688	Other and unspecified complications of the puerperium	4	-	3	-	-	-	1	-
689	Mastitis and other disorders of lactation	-	-	-	-	-	-	-	-
640-648 660-689	Total (excluding abortion)	194	6	38	40	39	47	20	4
640-689	Total	243	10	48	47	55	57	22	4

Note: Excludes 24 cases in which it was stated that death followed the maternal condition after an interval of 12 months.

Table C72. Deaths not assigned to pregnancy or childbearing but certified as associated therewith, 1963, England and Wales

ICD No.	Cause of death	All ages	15-	20-	25-	30-	35-	40-	45 and over
003.1	Pleurisy with effusion (tuberculosis)	1	-	1	-	-	-	-	-
134.3	Monilia infection	1	-	1	-	-	-	-	-
140-199	Malignant neoplasms	9	-	2	2	2	1	2	-
211	Neoplasm, benign (digestive system)	1	-	-	-	1	-	-	-
214	Uterine fibromyoma	1	-	-	-	-	1	-	-
224	Neoplasm, benign (endocrine glands)	1	-	-	1	-	-	-	-
254	Other diseases of thyroid gland	1	-	-	-	-	1	-	-
280	Diabetes mellitus	1	-	-	-	1	-	-	-
290.2	Other hyperchromic anaemia	1	-	-	-	-	1	-	-
330	Subarachnoid haemorrhage	1	-	-	-	-	1	-	-
332	Cerebral thrombosis	1	-	-	-	-	1	-	-
342	Intracranial abscess	1	-	1	-	-	-	-	-
343	Encephalitis	1	-	-	1	-	-	-	-
410	Mitral stenosis	13	-	2	5	2	2	2	-
415	Rheumatic myocarditis	1	-	-	-	-	1	-	-
416	Rheumatic heart disease	3	-	1	1	-	1	-	-
420.1	Coronary disease	3	-	1	-	1	-	1	-
430.0	Acute endocarditis	2	-	-	1	-	1	-	-
434.1	Congestive heart failure	1	-	-	1	-	-	-	-
456	Other disease of artery	1	-	-	-	-	1	-	-
460	Varicose vein	1	-	-	-	-	-	1	-
490-493	Pneumonia	5	-	-	1	2	1	1	-
541.0	Ulcer of duodenum (without perforation)	1	-	-	-	1	-	-	-
550.0	Acute appendicitis (without peritonitis)	1	-	-	1	-	-	-	-
550.1	Acute appendicitis (with peritonitis)	1	-	1	-	-	-	-	-
560.4	Hernia (without obstruction)	1	-	-	-	1	-	-	-
572.2	Ulcerative colitis	1	-	-	1	-	-	-	-
585	Cholecystitis without calculi	1	-	-	-	-	1	-	-
751	Spina bifida	1	1	-	-	-	-	-	-
754	Congenital malformations of circulatory system	3	1	-	1	1	-	-	-
E800-E999	Accidents, poisonings, violence	6	1	1	-	2	2	-	-
	Total	67	3	11	16	14	16	7	-
	Associated with abortion (included above)	6	2	1	1	1	1	-	-

Table C73. Tuberculosis of the respiratory system, death rates per million living, by sex and age, 1953 to 1963, England and Wales

	0-	5-	10-	15-	20-	25-	35-	45-	55-	65-	75 and over
Males											
1953	14	4	3	18	71	156	214	413	712	814	445
1954	9	2	1	13	55	130	192	370	643	778	406
1955	3	1	1	8	30	93	131	307	535	705	420
1956	7	1	2	7	14	71	113	231	456	640	463
1957	3	-	2	3	12	40	105	193	410	605	436
1958	3	1	2	6	13	38	85	166	401	572	416
1959	4	-	-	2	6	31	73	141	325	528	480
1960	1	-	-	3	1	20	55	121	297	492	436
1961	3	-	1	-	3	12	57	118	270	477	418
1962	1	1	-	1	3	11	45	96	249	487	409
1963	1	1	-	2	1	10	49	99	239	412	435
Females											
1953	17	5	3	32	122	174	146	116	130	162	140
1954	11	2	3	31	84	143	145	104	107	137	117
1955	6	2	4	12	56	113	101	84	95	111	115
1956	4	1	-	6	35	80	79	62	70	111	125
1957	4	1	-	6	12	70	75	53	55	80	91
1958	3	1	1	6	14	48	58	51	69	99	101
1959	4	1	1	2	7	33	44	46	53	86	95
1960	3	1	1	3	3	26	40	42	44	77	91
1961	-	-	-	2	4	21	39	44	52	70	93
1962	1	1	-	1	2	17	31	38	49	68	82
1963	1	1	-	-	3	14	31	36	40	49	77

Table C74. Tuberculosis of the respiratory system, notification rates* per 100,000 living, by sex and age, 1953 to 1963, England and Wales

	All ages	0-	5-	15-	25-	35-	45-	65 and over
Males								
1953	110	49	49	155	133	114	139	85
1954	100	41	40	143	125	106	126	82
1955	92	36	34	125	110	96	121	81
1956	88	29	28	115	101	92	121	87
1957	82	26	23	99	97	90	114	87
1958	76	25	21	89	86	81	108	87
1959	70	21	17	70	79	79	102	89
1960	60	24	15	59	65	68	88	77
1961	55	18	14	48	59	61	84	74
1962	52	18	14	44	60	59	77	69
1963	47	18	13	39	55	51	68	63
Females								
1953	77	45	52	201	141	73	34	18
1954	68	37	44	187	124	63	30	17
1955	60	35	38	156	112	59	30	17
1956	55	30	31	139	101	57	29	18
1957	49	30	27	116	90	55	29	17
1958	43	25	24	97	79	47	26	17
1959	39	22	19	83	69	49	25	16
1960	33	20	18	63	60	39	23	15
1961	29	18	16	52	50	37	21	14
1962	26	18	16	43	44	32	19	14
1963	24	15	15	38	38	31	18	12

*Notifications of tuberculosis used in this and subsequent tables for 1956 onwards are those returned to the General Register Office, and not, as in previous years, those returned to the Ministry of Health. There is a small but insignificant difference between the figures from the two sources. Cases of unstated age are omitted for 1956 onwards.

Table C75. Tuberculosis of the respiratory system, ratio of deaths to 100 notifications*, by sex and age, 1953 to 1963, England and Wales

	All ages	Males					Females					
		0-	15-	25-	45-	65 and over	All ages	0-	15-	25-	45-	65 and over
1953	23	2	3	15	38	82	14	2	4	15	36	85
1954	23	1	2	14	38	80	14	1	3	15	35	77
1955	21	0	2	12	33	76	12	1	2	13	29	66
1956	19	1	1	10	27	67	10	0	2	10	23	66
1957	18	1	1	8	25	63	10	1	1	10	19	51
1958	18	1	1	7	25	60	11	1	1	9	23	60
1959	17	1	1	7	22	58	9	1	1	7	19	55
1960	18	0	0	6	22	61	10	1	0	7	19	54
1961	18	1	0	6	22	62	11	-	1	7	23	55
1962	18	0	0	5	21	67	11	0	0	6	23	53
1963	19	0	0	6	24	66	10	0	0	7	21	48

*See footnote to Table C74.

Table C76. Tuberculosis of respiratory system, death rates per million living, by sex and age, notification ratios (notifications per 100 deaths) and Standardised Mortality Ratios, in standard regions, Wales, conurbations, urban and rural aggregates outside conurbations, and hospital regions, 1963, England and Wales

	Males								Females								Persons	
	All ages	0-	5-	15-	25-	45-	65 and over	S.M.R.	All ages	0-	5-	15-	25-	45-	65 and over	S.M.R.	All ages	Notification ratio
ENGLAND AND WALES	89	1	0	2	30	165	420	100	24	1	0	1	23	38	60	100	55	626
Standard regions and conurbations:																		
Northern	87	-	4	4	29	181	395	102	21	-	-	4	21	47	32	94	54	771
Tyneside Conurbation	94	-	-	-	61	203	334	111	18	-	-	-	9	56	18	79	55	1,132
Remainder of Northern	85	-	5	6	18	174	416	99	23	-	-	6	25	44	38	99	53	640
East and West Ridings	100	-	-	3	42	191	434	112	22	-	-	-	20	39	49	92	60	660
West Yorkshire Conurbation	107	-	-	9	45	207	441	119	28	-	-	-	23	46	67	112	66	790
Remainder of East and West Ridings	95	-	-	-	39	180	430	108	18	-	-	-	19	34	35	77	56	554
North Western	101	7	-	-	34	184	499	115	25	-	-	2	33	38	46	103	61	547
South East Lancashire Conurbation	96	9	-	-	41	197	389	110	20	-	-	6	22	45	11	81	56	607
Merseyside Conurbation	119	-	-	-	46	204	777	152	23	-	-	-	28	35	64	104	69	708
Remainder of North Western	96	8	-	-	22	164	475	103	30	-	-	-	45	34	67	121	62	411
North Midland	54	-	-	-	16	114	239	62	16	-	-	-	23	13	55	70	35	769
Midland	96	-	-	-	29	182	571	119	30	-	-	-	29	51	83	132	63	576
West Midlands Conurbation	104	-	-	-	38	208	579	131	29	-	-	-	31	54	62	128	66	739
Remainder of Midland	89	-	-	-	20	156	564	108	31	-	-	-	27	47	102	136	60	405
Eastern	51	-	-	-	18	105	234	60	20	-	-	4	8	34	64	83	35	726
London and South Eastern	99	-	-	3	37	167	455	106	26	2	-	-	19	44	63	104	61	656
Greater London	98	-	-	3	33	172	471	109	27	3	-	-	20	44	65	106	60	763
Remainder of London and South Eastern	102	-	-	-	50	151	424	101	26	-	-	-	16	43	59	97	62	376
Southern	65	-	-	-	25	146	264	76	22	-	-	-	16	25	80	91	43	755
South Western	70	-	-	-	14	142	291	74	23	-	-	-	30	28	54	92	46	565
Wales	141	-	-	11	49	217	730	154	31	-	5	6	29	43	78	128	84	422
Wales I (South East)	140	-	-	15	47	232	728	157	35	-	7	8	28	49	101	149	87	396
Wales II (remainder)	141	-	-	-	55	177	735	145	21	-	-	-	33	29	31	81	79	497
Urban and rural aggregates:																		
Conurbations	101	1	-	3	38	188	485	116	25	1	-	1	22	46	54	105	62	754
<i>Areas outside conurbations:</i>																		
Urban areas with populations of 100,000 and over	98	-	-	2	29	185	483	112	35	-	2	2	30	57	85	144	65	586
Urban areas with populations of 50,000 and under 100,000	84	5	-	3	27	157	412	97	22	-	-	-	17	33	68	93	52	600
Urban areas with populations under 50,000	89	-	1	-	28	157	422	97	18	-	-	3	23	18	46	72	52	518
Rural districts	63	-	-	1	21	120	290	71	23	-	-	-	21	34	64	95	43	494
Hospital regions:																		
Newcastle	89	-	4	5	29	190	395	105	21	-	-	5	20	51	25	93	55	788
Leeds	84	-	-	5	36	166	344	94	25	-	-	-	17	41	71	103	53	726
Sheffield	76	-	-	-	26	157	337	87	16	-	-	-	22	15	46	66	45	666
East Anglia	50	-	-	-	18	100	232	58	19	-	-	-	5	37	62	79	34	641
North West Metropolitan	70	-	-	3	27	131	282	75	23	6	-	3	22	32	50	89	45	987
North East Metropolitan	86	-	-	-	33	152	376	92	16	-	-	-	14	31	30	64	49	742
South East Metropolitan	121	-	-	-	48	186	609	131	28	-	-	-	16	44	79	110	72	480
South West Metropolitan	84	-	-	4	26	139	403	90	34	-	-	-	19	58	91	135	58	559
Wessex	68	-	-	-	29	162	256	80	21	-	-	-	22	9	87	86	44	678
Oxford	53	-	-	-	9	115	280	62	18	-	-	-	9	39	46	77	36	833
South Western	75	-	-	-	16	155	301	79	27	-	-	-	33	34	61	105	50	541
Welsh	141	-	-	11	49	217	730	154	31	-	5	6	29	43	78	128	84	422
Birmingham	96	-	-	-	29	182	571	119	30	-	-	-	29	51	83	132	63	576
Manchester	98	5	-	-	33	192	422	109	21	-	-	3	28	41	20	86	58	519
Liverpool	109	9	-	-	39	174	742	139	33	-	-	-	46	33	108	147	69	587

Table C77. Tuberculosis of respiratory system, notification rates per 100,000 living, by sex and age, and Standardised Notification Ratios, in standard regions, Wales conurbations, urban and rural aggregates outside conurbations and hospital regions, 1963, England and Wales

	Males								Females								Persons
	All ages	0-	5-	15-	25-	45-	65 and over	S.N.R.	All ages	0-	5-	15-	25-	45-	65 and over	S.N.R.	
ENGLAND AND WALES	47	18	13	39	53	68	63	100	24	15	15	38	34	18	12	100	35
Standard regions and conurbations:																	
Northern	51	18	16	43	53	88	62	112	32	28	26	55	44	21	14	136	41
Tyneside conurbation	76	21	25	64	85	121	95	165	50	60	48	74	64	34	19	210	62
Remainder of Northern	43	17	13	37	42	76	51	94	26	16	19	48	37	16	12	109	34
East and West Ridings	58	15	11	49	80	76	70	124	22	13	11	39	33	18	10	95	39
West Yorkshire Conurbation	80	16	13	85	135	87	61	171	26	13	14	54	40	18	13	114	52
Remainder of East and West Ridings	43	14	10	27	44	68	75	92	19	14	9	30	28	18	9	82	31
North Western	46	24	11	41	48	68	62	99	22	15	17	42	32	16	10	96	34
South East Lancashire Conurbation	48	22	10	51	49	73	56	103	21	15	19	42	32	12	7	92	34
Merseyside Conurbation	62	38	16	45	66	99	103	139	37	23	28	60	47	35	17	158	49
Remainder of North Western	36	19	10	30	39	51	52	77	16	12	9	30	24	10	9	69	26
North Midland	35	13	10	36	40	51	38	76	19	3	10	35	27	14	11	79	27
Midland	51	22	20	43	62	68	62	110	22	19	19	34	30	16	8	93	36
West Midlands Conurbation	69	34	34	66	89	85	59	150	29	28	35	43	38	18	8	121	49
Remainder of Midland	33	10	8	20	36	52	65	72	16	11	4	25	23	14	9	66	24
Eastern	31	12	11	27	36	44	43	68	20	11	14	30	29	16	14	86	26
London and South Eastern	55	21	14	45	62	75	79	115	26	17	15	39	41	22	14	113	40
Greater London	64	26	16	54	71	86	94	133	30	21	18	43	45	25	16	128	46
Remainder of London and South Eastern	31	8	9	18	35	45	50	66	16	5	6	27	27	14	10	72	23
Southern	40	21	14	27	45	62	54	87	25	22	14	33	38	19	20	109	33
South Western	33	10	8	27	34	54	45	71	19	7	8	38	26	18	8	82	26
Wales	49	9	12	41	44	80	90	106	23	11	16	28	33	22	15	98	36
Wales I (South East)	47	7	12	39	40	79	93	102	22	8	16	28	30	21	15	93	34
Wales II (remainder)	54	13	13	47	56	81	83	115	25	21	19	28	39	23	14	110	39
Urban and rural aggregates:																	
Conurbations	64	26	18	58	77	86	82	137	30	22	23	47	43	23	14	127	46
<i>Areas outside conurbations:</i>																	
Urban areas with populations of 100,000 and over	51	20	18	42	57	76	72	111	26	18	18	41	38	20	13	111	38
Urban areas with populations of 50,000 and under 100,000	41	22	13	28	46	63	57	90	22	15	9	40	33	16	12	93	31
Urban areas with populations under 50,000	36	10	9	28	37	58	57	78	18	10	10	31	27	16	10	79	27
Rural districts	26	8	6	22	27	41	41	57	16	6	9	25	24	13	12	69	21
Hospital regions:																	
Newcastle	53	19	17	45	55	91	62	117	33	29	25	59	47	22	15	142	43
Leeds	57	14	10	55	85	73	57	123	21	12	11	38	32	16	11	92	39
Sheffield	41	14	10	37	46	60	53	88	20	6	9	39	29	17	10	85	30
East Anglia	27	6	9	20	30	37	53	58	17	7	10	26	22	11	19	72	22
North West Metropolitan	59	25	14	61	75	73	65	125	32	24	19	46	48	25	17	134	45
North East Metropolitan	50	22	13	38	58	69	70	105	24	18	17	32	40	20	8	103	37
South East Metropolitan	48	23	16	34	47	65	87	100	23	10	14	36	35	18	14	99	35
South West Metropolitan	44	10	10	33	46	68	62	92	22	13	9	34	33	18	14	93	32
Wessex	38	11	13	22	42	62	58	82	23	14	12	24	34	20	19	97	30
Oxford	36	21	11	24	42	56	48	80	23	19	12	40	31	16	15	98	30
South Western	35	12	9	29	35	58	45	75	20	7	9	38	26	20	9	85	27
Welsh	49	9	12	41	44	80	90	106	23	11	16	28	33	22	15	98	36
Birmingham	51	22	20	43	62	68	62	110	22	19	19	34	30	16	8	93	36
Manchester	43	17	10	45	45	62	54	92	19	11	15	37	28	11	6	80	30
Liverpool	52	36	14	33	54	85	88	116	31	21	24	47	38	26	18	130	41

Table C78. Tuberculosis of the respiratory system, ratio of deaths to 100 notifications, by sex and age, in standard regions and hospital regions, 1963, England and Wales

	Males				Females			
	15-	25-	45-	65 and over	15-	25-	45-	65 and over
ENGLAND AND WALES	0	6	24	66	0	7	21	48
Standard regions:								
Northern	1	6	21	64	1	5	23	23
East and West Ridings	1	5	25	62	-	6	22	47
North Western	-	7	27	80	1	10	24	47
North Midland	-	4	22	62	-	8	9	48
Midland	-	5	27	92	-	10	32	100
Eastern	-	5	24	55	1	3	21	45
London and South Eastern	1	6	22	57	-	5	20	45
Southern	-	5	24	49	-	4	13	40
South Western	-	4	26	64	-	12	16	64
Wales	3	11	27	81	2	9	20	54
Wales I (South East)	4	12	29	78	3	9	23	68
Wales II (remainder)	-	10	22	88	-	9	13	22
Hospital regions:								
Newcastle	1	5	21	64	1	4	24	17
Leeds	1	4	23	61	-	5	25	64
Sheffield	-	6	26	64	-	8	9	47
East Anglia	-	6	27	44	-	2	33	32
North West Metropolitan	1	4	18	44	1	5	13	29
North East Metropolitan	-	6	22	54	-	3	16	38
South East Metropolitan	-	10	29	70	-	4	24	58
South West Metropolitan	1	6	20	65	-	6	32	63
Wessex	-	7	26	44	-	6	5	46
Oxford	-	2	21	54	-	3	24	30
South Western	-	5	27	67	-	13	17	68
Welsh	3	11	27	81	2	9	20	54
Birmingham	-	5	27	92	-	10	32	100
Manchester	-	7	31	78	1	10	36	32
Liverpool	-	7	21	85	-	12	12	59

Table C79. Non-respiratory tuberculosis, death rates per million living, by sex and age, 1953 to 1963, England and Wales

	Males					Females				
	All ages	0-	15-	25-	45 and over	All ages	0-	15-	25-	45 and over
1953	24	29	17	18	30	21	30	18	12	23
1954	21	16	15	18	30	17	13	15	12	22
1955	17	11	12	14	26	13	14	5.3	8.5	18
1956	13	7.3	4.4	11	20	11	5.6	7.6	9.2	16
1957	12	7.2	6.5	11	19	12	8.6	6.5	8.0	17
1958	12	5.4	7.1	9.4	20	9.5	5.8	3.2	6.1	16
1959	8.7	6.0	2.1	6.3	15	8.1	4.5	2.8	5.4	13
1960	7.2	2.4	2.4	5.7	14	7.2	2.5	2.7	5.1	12
1961	7.4	1.5	4.2	6.3	14	7.0	3.9	3.9	3.1	12
1962	8.0	3.7	4.6	5.5	14	5.5	2.3	3.1	3.1	10
1963	7.4	2.6	3.6	5.1	14	7.5	3.3	2.7	4.4	13

Table C80. Non-respiratory tuberculosis, notification rates* per million living, by sex and age, 1953 to 1963, England and Wales

	Males					Females				
	All ages	0-	15-	25-	45 and over	All ages	0-	15-	25-	45 and over
1953	122	233	163	85	59	133	224	240	129	51
1954	109	192	149	93	48	133	199	245	140	56
1955	96	145	154	85	48	109	144	203	126	48
1956	87	121	131	83	49	98	113	188	118	49
1957	76	91	119	74	49	93	103	162	121	46
1958	70	75	106	82	44	83	77	142	111	50
1959	58	53	86	71	40	67	55	114	88	46
1960	56	47	67	82	36	69	48	113	103	43
1961	54	41	72	76	38	64	40	92	101	43
1962	53	38	59	81	38	62	36	85	96	46
1963	53	29	67	87	34	58	29	80	91	44

* See footnote to Table C74.

Table C81. Mass miniature radiography, number of examinations made by mass
(The total numbers of examinations have been

Category of person examined	Males											
	Under 14	14	15-	20-	25-	35-	45-	55-	60-	65 and over	Not stated	All ages
Out-patients and in-patients of hospitals	80	30	640	610	1,460	1,610	1,590	770	770	890	-	8,450
H.M. Forces intakes	-	-	460	90	70	10	10	-	-	-	-	640
School children (Mantoux test)	4,680	2,840	1,280	130	-	-	-	-	-	-	-	8,930
School children (School groups)	1,910	5,440	19,160	260	-	-	-	-	-	-	-	26,770
Contacts (Mantoux test)	680	350	450	140	160	530	390	40	30	-	-	2,770
Other contacts	3,190	1,680	4,140	2,300	4,220	3,780	2,760	1,040	860	410	40	24,420
Persons covered by special surveys	80	20	550	510	1,020	1,340	900	530	390	140	10	5,490
Persons in prisons, borstals etc.	210	80	4,820	5,100	6,380	3,910	2,560	1,300	820	1,940	-	27,120
Persons in factories/offices (General surveys)	-	570	121,440	137,360	267,320	275,520	238,240	94,660	61,500	15,060	60	1,211,730
General public volunteers	2,300	1,900	38,000	39,820	87,100	90,780	79,070	33,690	25,590	34,880	80	433,210
Ante-natal cases	-	-	-	-	-	-	-	-	-	-	-	-
Psychiatric hospitals	380	140	2,340	2,700	5,290	7,630	7,880	4,270	3,580	4,970	40	39,220
Total	13,510	13,050	193,280	189,020	373,020	365,110	333,400	136,300	93,540	58,290	230	1,788,750
Persons referred by general practitioners	3,000	1,170	11,850	12,690	26,330	25,270	25,750	13,390	12,180	12,200	10	143,840
Total (all groups)	16,510	14,220	205,130	201,710	399,350	410,380	359,150	149,690	105,720	70,490	240	1,932,590

radiography units, by sex, age, and category of person examined, 1963, England and Wales
(derived from a 10 per cent sample of record cards)

Category of person examined	Females												Persons All ages	Category of person examined
	Under 14	14	15-	20-	25-	35-	45-	55-	60-	65 and over	Not stated	All ages		
Out-patients and in-patients of hospitals	10	30	870	1,110	1,800	2,010	2,220	850	710	1,510	-	11,120	19,570	Out-patients and in-patients of hospitals
H.M. Forces intakes	-	-	30	-	-	-	-	-	-	-	-	30	670	H.M. Forces intakes
School children (Mantoux test)	4,420	2,000	1,020	10	-	-	-	-	-	-	-	7,450	16,380	School children (Mantoux test)
School children (School groups)	1,520	4,110	14,470	240	-	-	-	-	-	-	10	20,350	47,120	School children (School groups)
Contacts (Mantoux test)	600	360	420	50	280	920	350	50	30	40	20	3,120	5,890	Contacts (Mantoux test)
Other contacts	2,080	1,140	3,470	1,720	2,330	2,850	2,220	760	400	620	10	17,600	42,020	Other contacts
Persons covered by special surveys	120	10	360	210	540	640	460	90	220	300	20	2,970	8,460	Persons covered by special surveys
Persons in prisons, borstals etc.	30	40	360	290	500	500	800	340	340	1,810	-	5,010	32,130	Persons in prisons, borstals etc.
Persons in factories/offices (General surveys)	-	350	152,690	115,320	99,680	113,890	93,200	30,820	10,090	4,090	80	620,210	1,831,940	Persons in factories/offices (General surveys)
General public volunteers	2,270	1,460	49,310	44,260	98,790	111,890	86,590	36,230	27,810	31,710	70	490,390	923,600	General public volunteers
Ante-natal cases	-	10	2,410	6,830	8,570	2,150	40	-	-	-	10	20,020	20,020	Ante-natal cases
Psychiatric hospitals	180	110	1,450	2,160	4,000	6,060	7,770	4,020	4,000	10,030	50	39,830	79,050	Psychiatric hospitals
Total	11,230	9,620	226,860	172,200	216,490	240,910	193,650	73,160	43,600	50,110	270	1,238,100	3,026,850	Total
Persons referred by general practitioners	2,650	1,100	13,700	13,320	23,610	22,670	19,310	8,460	6,410	8,580	20	119,830	263,670	Persons referred by general practitioners
Total (all groups)	13,880	10,720	240,560	185,520	240,100	263,580	212,960	81,620	50,010	58,690	290	1,357,930	3,290,520	Total (all groups)

Table C82. Mass miniature radiography, (a) numbers of cases of respiratory radiography units, (b) rates per 1,000 examinations, by sex,

tuberculosis requiring treatment or close clinic supervision observed by mass age, and category of person examined, 1963, England and Wales

Category of person examined	Males												All ages
	Under 14	14	15-	20-	25-	35-	45-	55-	60-	65 and over	Not stated	All ages	
Out-patients and in-patients of hospitals	(a)	-	-	1	3	1	6	1	2	4	-	18	
	(b)	-	-	1.6	2.1	0.6	3.8	1.3	2.6	4.5	-	2.1	
H.M. Forces intakes	(a)	-	-	-	-	-	-	-	-	-	-	-	
	(b)	-	-	-	-	-	-	-	-	-	-	-	
School children (Mantoux test)	(a)	12	4	3	4	-	-	-	-	-	-	23	
	(b)	2.6	1.4	2.3	30.8	-	-	-	-	-	-	2.6	
School children (School groups)	(a)	3	-	5	-	-	-	-	-	-	-	8	
	(b)	1.6	-	0.3	-	-	-	-	-	-	-	0.3	
Contacts (Mantoux test)	(a)	-	-	-	-	2	1	-	-	-	-	3	
	(b)	-	-	-	-	3.8	2.6	-	-	-	-	1.1	
Other contacts	(a)	6	1	6	10	16	18	13	3	1	2	76	
	(b)	1.9	0.6	1.4	4.3	3.8	4.8	4.7	2.9	1.2	4.9	3.1	
Persons covered by special surveys	(a)	-	1	-	-	5	8	5	-	4	-	23	
	(b)	-	50.0	-	-	4.9	6.0	5.6	-	10.3	-	4.2	
Persons in prisons, borstals, etc.	(a)	-	-	-	5	10	25	21	13	15	16	105	
	(b)	-	-	-	1.0	1.6	6.4	8.2	10.0	18.3	8.2	3.9	
Persons in factories/offices (General surveys)	(a)	-	1	58	129	262	230	229	75	89	14	1,087	
	(b)	-	1.8	0.5	0.9	1.0	0.8	1.0	0.8	1.4	0.9	0.9	
General public volunteers	(a)	-	-	21	57	109	111	99	59	49	70	575	
	(b)	-	-	0.6	1.4	1.3	1.2	1.3	1.8	1.9	2.0	1.3	
Ante-natal cases	(a)	-	-	-	-	-	-	-	-	-	-	-	
	(b)	-	-	-	-	-	-	-	-	-	-	-	
Psychiatric hospitals	(a)	-	-	4	3	17	18	18	7	10	9	86	
	(b)	-	-	1.7	1.1	3.2	2.4	2.3	1.6	2.8	1.8	2.2	
Total	(a)	21	7	97	209	422	413	392	158	170	115	2,004	
	(b)	1.6	0.5	0.5	1.1	1.1	1.1	1.2	1.2	1.8	2.0	1.1	
Persons referred by general practitioners	(a)	3	4	44	86	202	149	171	113	99	98	969	
	(b)	1.0	3.4	3.7	6.8	7.7	5.9	6.6	8.4	8.1	8.0	6.7	
Total (all groups)	(a)	24	11	141	295	624	562	563	271	269	213	2,973	
	(b)	1.5	0.8	0.7	1.5	1.6	1.4	1.6	1.8	2.5	3.0	1.5	

Category of person examined	Females												All ages
	Under 14	14	15-	20-	25-	35-	45-	55-	60-	65 and over	Not stated	All ages	
Out-patients and in-patients of hospitals	(a)	-	-	1	-	2	2	1	1	-	-	7	
	(b)	-	-	1.1	-	1.1	1.0	0.5	1.2	-	-	0.6	
H.M. Forces intakes	(a)	-	-	-	-	-	-	-	-	-	-	-	
	(b)	-	-	-	-	-	-	-	-	-	-	-	
School children (Mantoux test)	(a)	13	4	2	-	-	-	-	-	-	-	19	
	(b)	2.9	2.0	2.0	-	-	-	-	-	-	-	2.6	
School children (School groups)	(a)	7	-	7	-	-	-	-	-	-	-	14	
	(b)	4.6	-	0.5	-	-	-	-	-	-	-	0.7	
Contacts (Mantoux test)	(a)	-	2	1	-	-	1	1	-	-	1	6	
	(b)	-	5.6	2.4	-	-	1.1	2.9	-	-	25.0	1.9	
Other contacts	(a)	7	-	6	4	5	5	3	1	1	1	33	
	(b)	3.4	-	1.7	2.3	2.1	1.8	1.4	1.3	2.5	1.6	1.9	
Persons covered by special surveys	(a)	-	-	-	-	1	1	-	-	-	-	2	
	(b)	-	-	-	-	1.9	1.6	-	-	-	-	0.7	
Persons in prisons, borstals, etc.	(a)	-	-	-	-	-	1	3	-	-	-	4	
	(b)	-	-	-	-	-	2.0	3.8	-	-	-	0.8	
Persons in factories/offices (General surveys)	(a)	-	-	57	80	71	74	44	11	5	1	343	
	(b)	-	-	0.4	0.7	0.7	0.6	0.5	0.4	0.5	0.2	0.6	
General public volunteers	(a)	1	1	29	39	82	88	43	15	5	11	314	
	(b)	0.4	0.7	0.6	0.9	0.8	0.8	0.5	0.4	0.2	0.3	0.6	
Ante-natal cases	(a)	-	-	2	7	15	1	-	-	-	-	25	
	(b)	-	-	0.8	1.0	1.8	0.5	-	-	-	-	1.2	
Psychiatric hospitals	(a)	-	-	-	1	3	6	11	6	6	8	41	
	(b)	-	-	-	0.5	0.8	1.0	1.4	1.5	1.5	0.8	1.0	
Total	(a)	28	7	105	131	179	179	106	34	17	22	808	
	(b)	2.5	0.7	0.5	0.8	0.8	0.7	0.5	0.5	0.4	0.4	0.7	
Persons referred by general practitioners	(a)	8	3	39	49	106	85	61	19	16	18	404	
	(b)	3.0	2.7	2.8	3.7	4.5	3.7	3.2	2.2	2.5	2.1	3.4	
Total (all groups)	(a)	36	10	144	180	285	264	167	53	33	40	1,212	
	(b)	2.6	0.9	0.6	1.0	1.2	1.0	0.8	0.6	0.7	0.7	0.9	

Table C83. Mass miniature radiography, (a) numbers, (b) rates per 1,000 examinations, of non-tuberculous conditions diagnosed following examination, by sex and age, 1963, England and Wales

Category of person	Males													Females													Persons	
	Under 14	14	15-	20-	25-	35-	45-	55-	60-	65 and over	Not stated	All ages	Under 14	14	15-	20-	25-	35-	45-	55-	60-	65 and over	Not stated	All ages	All ages	All ages		
Malignant neoplasms																												
All groups, <i>excluding</i> persons referred by general practitioners	(a)	-	-	1	3	9	49	233	233	230	293	-	1,051	-	-	2	1	3	18	42	38	35	63	-	202	1,253		
	(b)	-	-	0.0	0.0	0.0	0.1	0.7	1.7	2.5	5.2	-	0.8	-	-	0.0	0.0	0.0	0.1	0.2	0.5	0.8	1.3	-	0.2	0.4		
Persons referred by general practitioners	(a)	-	-	1	3	11	67	278	275	353	556	-	1,544	-	-	3	2	26	74	37	54	88	-	284	1,828			
	(b)	-	-	0.1	0.2	0.4	2.7	10.8	20.5	29.0	45.6	-	10.7	-	-	0.2	0.1	1.1	3.8	4.4	8.4	10.3	-	2.4	6.9			
Total (all groups)	(a)	-	-	2	6	20	116	511	508	583	849	-	2,595	-	-	5	4	54	116	75	89	151	-	486	3,081			
	(b)	-	-	0.0	0.0	0.1	0.3	1.4	3.4	5.5	12.0	-	1.3	-	-	0.0	0.0	0.2	0.5	0.9	1.8	2.6	-	0.4	0.9			
Non-malignant neoplasms																												
All groups, <i>excluding</i> persons referred by general practitioners	(a)	1	-	9	5	16	29	75	46	36	42	-	259	-	-	5	5	18	28	71	46	32	56	-	259	518		
	(b)	0.1	-	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.7	-	0.1	-	-	0.0	0.0	0.1	0.1	0.4	0.8	0.7	1.1	-	0.2	0.2		
Persons referred by general practitioners	(a)	-	-	1	1	-	4	10	8	9	13	-	46	-	-	1	1	1	11	9	6	16	-	46	92			
	(b)	-	-	0.1	0.1	-	0.2	0.4	0.8	0.7	1.1	-	0.3	-	-	0.1	0.1	0.0	0.6	1.1	0.9	1.9	-	0.4	0.3			
Total (all groups)	(a)	1	-	10	6	16	33	85	54	45	55	-	305	-	-	6	19	27	82	55	38	72	-	305	610			
	(b)	0.1	-	0.0	0.0	0.0	0.1	0.2	0.4	0.4	0.8	-	0.2	-	-	0.0	0.0	0.1	0.4	0.7	0.8	1.2	-	0.2	0.2			
Lymphadenopathies, excluding sarcoids																												
All groups, <i>excluding</i> persons referred by general practitioners	(a)	1	-	-	3	4	4	2	3	2	2	-	21	1	-	3	1	6	2	-	1	1	5	-	20	41		
	(b)	0.1	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.1	-	0.0	0.0	0.0	0.0	-	0.0	0.0	0.1	-	0.0	0.0		
Persons referred by general practitioners	(a)	1	-	2	-	4	2	3	1	3	2	-	18	-	-	1	1	1	3	3	-	1	-	10	28			
	(b)	0.3	-	0.2	-	0.2	0.1	0.1	0.1	0.2	0.2	-	0.1	-	-	0.1	0.1	0.0	0.2	-	0.2	-	-	0.1	0.1			
Total (all groups)	(a)	2	-	2	3	8	6	5	4	5	4	-	39	1	-	4	2	7	5	3	1	2	5	-	30	69		
	(b)	0.1	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-	0.0	0.1	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	-	0.0	0.0		
Sarcoids, including enlarged hilar glands																												
All groups, <i>excluding</i> persons referred by general practitioners	(a)	1	-	10	50	152	55	32	10	5	4	-	319	2	-	17	48	85	57	32	12	3	3	-	259	578		
	(b)	0.1	-	0.1	0.3	0.4	0.1	0.1	0.1	0.1	0.1	-	0.2	0.2	-	0.1	0.3	0.4	0.2	0.2	0.2	0.1	0.1	-	0.2	0.2		
Persons referred by general practitioners	(a)	1	-	2	12	31	17	6	3	7	-	79	-	-	3	17	41	16	10	7	4	3	-	101	180			
	(b)	0.3	-	0.2	0.9	1.2	0.7	0.2	0.2	0.6	-	0.5	-	-	0.2	1.3	1.7	0.7	0.5	0.8	0.6	0.3	-	0.8	0.7			
Total (all groups)	(a)	2	-	12	62	183	72	38	13	12	4	-	398	2	-	20	65	126	73	42	19	7	6	-	360	758		
	(b)	0.1	-	0.1	0.3	0.5	0.2	0.1	0.1	0.1	0.1	-	0.2	0.1	-	0.1	0.4	0.5	0.3	0.2	0.2	0.1	0.1	-	0.3	0.2		
Congenital cardiac abnormalities and abnormalities of the vascular system																												
All groups, <i>excluding</i> persons referred by general practitioners	(a)	5	2	35	26	41	30	20	12	11	5	-	187	6	3	52	31	30	23	31	6	7	4	-	193	380		
	(b)	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-	0.1	0.5	0.3	0.2	0.2	0.1	0.1	0.2	0.1	0.2	0.1	-	0.2	0.1		
Persons referred by general practitioners	(a)	1	1	13	6	9	14	3	5	5	-	68	2	-	7	2	12	11	10	1	1	3	-	49	115			
	(b)	0.3	0.9	1.1	0.5	0.3	0.4	0.5	0.2	0.4	0.4	-	0.5	0.8	-	0.5	0.2	0.5	0.5	0.5	0.1	0.2	0.3	-	0.4	0.4		
Total (all groups)	(a)	6	3	48	32	50	39	34	15	16	10	-	253	8	3	59	33	42	34	41	7	8	7	-	242	495		
	(b)	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	-	0.1	0.6	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	-	0.2	0.2		
Acquired cardiac abnormalities and abnormalities of the vascular system																												
All groups, <i>excluding</i> persons referred by general practitioners	(a)	7	5	35	56	121	209	499	440	460	655	-	2,487	8	4	84	91	141	289	659	460	428	851	2	3,017	5,504		
	(b)	0.5	0.4	0.2	0.3	0.3	0.5	1.5	3.2	4.9	11.2	-	1.4	0.7	0.4	0.4	0.5	0.7	1.2	3.4	6.3	9.8	17.0	7.4	2.4	11.2	10.5	
Persons referred by general practitioners	(a)	4	2	5	21	43	114	196	230	272	533	-	1,420	6	1	18	16	42	108	223	181	201	550	-	1,346	2,786		
	(b)	1.3	1.7	0.4	1.7	1.6	4.5	7.8	17.2	22.3	43.7	-	9.9	2.3	0.9	1.3	1.2	1.8	4.8	11.5	21.4	31.4	64.1	-	11.2	10.5		
Total (all groups)	(a)	11	7	40	77	164	323	695	670	732	1,188	-	3,907	14	5	102	107	183	397	882	641	629	1,401	2	4,363	8,270		
	(b)	0.7	0.5	0.2	0.4	0.4	0.8	1.9	4.5	6.9	16.9	-	2.0	1.0	0.5	0.4	0.6	0.8	1.5	4.1	7.9	12.6	23.9	6.9	3.2	2.5		
Pneumoconiosis without progressive massive fibrosis																												
All groups, <i>excluding</i> persons referred by general practitioners	(a)	-	-	2	2	17	176	422	328	281	137	-	1,345	-	-	-	1	2	7	23	12	4	4	-	53	1,398		
	(b)	-	-	0.0	0.0	0.0	0.5	1.3	2.4	2.8	2.4	-	0.8	-	-	-	0.0	0.0	0.0	0.1	0.2	0.1	0.1	-	0.0	0.5		
Persons referred by general practitioners	(a)	-	-	1	5	50	110	99	97	69	-	431	-	-	-	-	1	12	8	4	5	-	-	-	30	481		
	(b)	-	-	0.1	0.2	2.0	4.3	7.4	8.0	5.7	-	3.0	-	-	-	-	0.0	0.6	0.9	0.6	0.6	-	-	-	0.3	1.7		
Total (all groups)	(a)	-	-	3	7	67	226	207	204	166	206	-	1,776	-	-	-	1	2	8	35	20	9	4	-	83	1,859		
	(b)	-	-	0.0	0.0	0.1	0.6	1.5	2.9	3.4	2.9	-	0.9	-	-	-	0.0	0.0	0.0	0.2	0.2	0.2	0.2	-	0.1	0.6		
Pneumoconiosis with progressive massive fibrosis																												
All groups, <i>excluding</i> persons referred by general practitioners	(a)	-	-	-	-	4	22	28	16	24	-	92	-	-	-	-	-	-	1	-	-	-	-	-	1	93		
	(b)	-	-	-	-	0.0	0.1	0.2	0.2	0.4	-	0.1	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	0.0		
Persons referred by general practitioners	(a)	-	-	-	-	1	12	6	7	12	-	38	-	-	-	-	-	-	1	-	1	1	-	-	3	41		
	(b)	-	-	-	-	0.0	0.5	0.4	0.6	1.0	-	0.3	-	-	-	-	-	-	0.1	-	0.2	0.1	-	-	0.0	0.2		
Total (all groups)	(a)	-	-	-	-	5	34	32	23	36	-	130	-	-	-	-	-	-	2	-	1	1	-	-	4	134		
	(b)	-	-	-	-	0.0	0.1	0.2	0.2	0.5	-	0.1	-	-	-	-	-	-	0.0	-	0.0	0.0	-	-	0.0	0.0		

Table C84. Deaths from cancer by sex and age according to histological type and death rates per million living, 1963, England and Wales

		All ages	0-	15-	35-	45-	55-	65 and over
		Number of deaths						
All malignant neoplasms (140-205)	{ M	55,192	485	884	1,614	6,077	15,870	30,262
	{ F	47,224	335	743	2,211	6,032	10,521	27,382
Carcinoma	{ M	48,490	34	280	1,113	5,101	14,164	27,798
	{ F	41,649	28	360	1,782	5,311	9,310	24,858
Glioma	{ M	913	81	64	109	220	316	123
	{ F	708	49	80	105	146	194	134
Sarcoma	{ M	946	94	133	102	135	203	279
	{ F	999	70	90	89	146	186	418
Reticuloses	{ M	3,171	258	386	240	445	725	1,117
	{ F	2,581	174	207	185	283	547	1,185
Undefined	{ M	1,672	18	21	50	176	462	945
	{ F	1,287	14	6	50	146	284	787
		Death rates per million persons living						
All malignant neoplasms (140-205)		2,173	77	130	595	1,959	4,716	10,261
Carcinoma		1,917	6	51	451	1,685	4,195	9,373
Glioma		34	12	11	33	59	91	46
Sarcoma		41	15	18	30	45	70	124
Reticuloses		122	41	47	66	118	227	410
Undefined		63	3	2	16	52	133	308

Table C85. Cancer (ICD Nos. 140-205), sex and age specific death rates per million living from cancer at various sites and the percentage of mortality at each site to "all sites", 1963, England and Wales

Males

ICD No.	Site or organ	All ages	0-	5-	15-	25-	35-	45-	55-	65-	75-	85 and over	Per cent of all sites
140	Lip	26	0	1	0	1	5	10	43	116	350	710	1.1
141	Tongue												
142	Salivary Gland												
143	Floor of mouth												
144	Other parts of mouth and mouth unspecified												
145	Oral mesopharynx	16	0	1	0	0	3	12	37	82	143	212	0.7
146	Nasopharynx												
147	Hypopharynx												
148	Pharynx unspecified												
150	Oesophagus	60	-	-	-	2	7	40	129	313	586	933	2.5
151	Stomach	339	-	-	1	11	65	260	827	1,824	2,805	2,672	14.0
152	Small intestine, including duodenum	160	-	-	2	7	37	103	302	823	1,690	2,333	6.6
153	Large intestine, except rectum												
154	Rectum												
155	Biliary passages and liver (stated to be primary site)	129	-	-	1	5	19	83	245	671	1,371	1,909	5.3
155	Biliary passages and liver (stated to be primary site)	28	2	-	1	3	8	23	65	141	219	244	1.2
157	Pancreas	98	0	-	1	4	16	84	237	500	826	901	4.1
161	Larynx	28	-	-	0	-	4	17	65	173	221	170	1.1
162	Bronchus and trachea, and of lung specified as primary	909	0	1	2	23	146	903	2,918	4,951	4,185	1,994	37.6
163	Lung, unspecified as to whether primary or secondary												
170	Breast	3	-	-	-	-	1	4	6	12	29	42	.1
177	Prostate	166	-	0	0	0	1	19	146	863	2,849	4,517	6.9
178	Testis	9	2	-	13	18	13	12	7	11	2	11	0.4
179	Other and unspecified male genital organs	6	-	-	0	-	2	5	11	28	58	117	0.3
180	Kidney	36	11	3	-	1	12	48	91	161	192	223	1.5
181	Bladder and other urinary organs	99	0	0	0	1	4	54	207	537	1,081	1,389	4.1

Table C85 - continued

Males

ICD No.	Site or organ	All ages	0-	5-	15-	25-	35-	45-	55-	65-	75-	85 and over	Per cent of all sites	
190	Skin (malignant melanoma) Skin (malignant neoplasm)	18	1	0	2	7	8	19	33	58	141	477	0.7	
191														
193	Malignant neoplasm of brain and other parts of nervous system	49	29	17	8	16	40	88	143	94	24	32	2.0	
194	Thyroid gland	4	-	-	-	-	2	6	11	19	25	42	0.2	
195	Other endocrine glands	2	3	1	1	1	3	2	3	7	7	21	0.1	
196	Bone (including jaw bone) Connective tissue	18	3	5	12	6	11	17	35	53	95	117	0.7	
197														
158	Peritoneum Mediastinum Secondary and unspecified malignant neoplasm of lymph nodes	10	4	1	1	2	3	8	22	55	51	-	0.4	
164														
198														
200	Lymphosarcoma and reticulosarcoma	29	3	8	10	11	17	30	67	103	116	106	1.2	
201	Hodgkin's disease	23	0	5	18	27	20	36	38	39	48	32	0.9	
202	Other forms of lymphoma (reticulosis)	4	0	1	1	1	1	5	12	16	22	11	0.2	
203	Multiple myeloma (plasmocytoma)	16	-	-	0	0	5	20	47	82	80	85	0.7	
204	Leukaemia and aleukaemia	66	44	34	28	28	31	55	107	238	370	286	2.7	
205	Mycosis fungoides	1	-	-	-	-	-	1	3	2	3	-	0.0	
Others in 140-205	Remaining sites	63	4	1	2	5	15	49	162	313	483	594	2.6	
140-205	Total	2,417	111	76	102	179	501	2,013	6,022	12,284	18,070	20,180	100.0	
193	Malignant neoplasm of brain and other parts of nervous system Benign neoplasm of brain and other parts of nervous system Neoplasm of unspecified nature of brain and other parts of nervous system	67	33	20	15	23	52	117	186	146	66	42	2.8	
223														
237														

Table C86. Cancer (ICD Nos. 140-205), sex and age specific death rates per million living from cancer at various sites and the percentage of mortality at each site to "all sites", 1963, England and Wales

Females

ICD No.	Site or organ	All ages	0-	5-	15-	25-	35-	45-	55-	65-	75-	85 and over	Per cent of all sites	
140	Lip Tongue Salivary gland Floor of mouth Other parts of mouth and mouth unspecified	12	1	0	0	0	2	5	19	32	82	157	0.6	
141														
142														
143														
144														
145	Oral mesopharynx Nasopharynx Hypopharynx Pharynx unspecified	13	-	-	0	2	6	15	29	38	61	70	0.7	
146														
147														
148														
150	Oesophagus	44	-	-	-	2	7	26	66	148	319	379	2.3	
151	Stomach	245	-	-	1	9	31	118	332	829	1,858	2,635	12.6	
152	Small intestine, including duodenum Large intestine, except rectum	227	-	-	2	8	36	127	342	745	1,589	2,528	11.7	
153														
154	Rectum	105	-	-	1	3	18	69	146	350	728	1,093	5.4	
155	Biliary passages and liver (stated to be primary site)	37	2	1	-	2	4	16	56	146	241	274	1.9	
157	Pancreas	82	-	-	-	2	13	45	134	302	536	675	4.2	
161	Larynx	6	-	-	-	-	2	6	10	21	30	30	0.3	
162	Bronchus and trachea, and of lung specified as primary Lung, unspecified as to whether primary or secondary	152	-	1	0	6	46	183	353	534	553	527	7.8	
163														
170	Breast	390	-	-	1	40	208	590	813	1,020	1,505	2,269	20.0	
171	Cervix uteri	102	-	-	0	11	99	177	193	255	311	396	5.2	
172	Corpus uteri	49	-	-	-	2	8	39	120	167	236	235	2.5	
173	Other parts of uterus, including chorionepithelioma Uterus, unspecified	13	-	-	1	2	7	15	26	41	54	61	0.7	
174														
175	Ovary, Fallopian tube and broad ligament	126	2	1	5	13	52	195	310	371	367	348	6.5	

Table C86 - continued

ICD No.	Site or organ	Females											Per cent of all sites
		All ages	0-	5-	15-	25-	35-	45-	55-	65-	75-	85 and over	
178	Other and unspecified female genital organs	21	1	-	-	1	4	10	26	72	155	209	1.1
180	Kidney	22	7	3	1	1	7	14	39	76	104	122	1.1
181	Bladder and other urinary organs	38	1	-	-	0	3	16	55	120	298	409	1.9
190	Skin (malignant melanoma)	18	1	1	2	9	14	17	21	38	99	244	0.9
191	Skin (malignant neoplasm)												
193	Malignant neoplasm of brain and other parts of nervous system	35	18	14	9	21	36	54	77	64	22	13	1.8
194	Thyroid gland	12	-	-	0	0	2	12	23	45	63	74	0.6
195	Other endocrine glands	2	5	1	-	1	2	1	3	4	4	-	0.1
196	Bone (including jaw bone)	15	1	4	5	7	5	10	23	42	75	91	0.8
197	Connective tissue												
158	Peritoneum	10	-	1	1	1	3	8	21	36	45	61	0.5
164	Mediastinum												
198	Secondary and unspecified malignant neoplasm of lymph nodes												
200	Lymphosarcoma and reticulosarcoma	20	2	2	5	4	10	17	35	66	95	96	1.0
201	Hodgkin's disease	13	-	1	10	12	15	11	20	21	39	13	0.6
202	Other forms of lymphoma (reticulosis)	3	1	-	1	1	3	3	6	6	16	22	0.2
203	Multiple myeloma (plasmocytoma)	15	-	-	0	1	2	13	37	65	58	39	0.8
204	Leukaemia and aleukaemia	55	37	27	15	18	27	45	86	129	220	231	2.8
205	Mycosis fungoides	0	-	-	-	-	0	-	0	0	1	-	0.0
Others in 140-205	Remaining sites	69	4	1	2	6	17	50	132	237	381	453	3.5
140-205	Total	1,952	78	57	63	185	690	1,908	3,554	6,019	10,148	13,754	100.0
193	Malignant neoplasm of brain and other parts of nervous system	50	21	18	13	28	48	77	112	99	42	17	2.6
223	Benign neoplasm of brain and other parts of nervous system												
237	Neoplasm of unspecified nature of brain and other parts of nervous system												

Table C87. Cancer, Standardised Mortality Ratios by sex for selected sites, in standard regions, conurbations, urban and rural aggregates outside the conurbations, and hospital regions, 1963, England and Wales

	All sites (140-205)		Buccal cavity and pharynx (140-148)		Oesophagus (150)		Stomach (151)		Intestine and rectum (152-154)		Larynx (161)		Trachea, bronchus and lung (162, 163)	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
ENGLAND AND WALES	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Standard regions:														
Northern	105	101	107	118	106	110	116	123	113	98	107	113	107	91
East and West Ridings	101	99	106	104	73	72	110	109	105	106	110	48	99	100
North Western	107	102	115	118	109	115	116	113	110	106	117	125	110	106
North Midland	93	97	88	113	83	94	94	99	103	95	100	78	86	78
Midland	101	99	121	103	128	103	103	109	112	99	88	118	100	77
Eastern	92	97	89	86	78	109	89	80	88	100	83	109	90	96
London and South Eastern	105	101	99	84	100	88	87	87	92	97	101	85	114	129
Southern	94	98	78	97	97	88	87	78	94	98	105	91	92	95
South Western	90	98	100	79	113	108	89	90	95	95	80	114	79	88
Wales	97	103	79	135	112	147	129	146	96	111	98	154	82	58
Conurbations:														
Tyneside	128	102	109	70	150	143	136	120	132	105	92	85	146	96
West Yorkshire	104	101	133	69	92	73	117	120	103	104	101	37	105	103
South East Lancashire	111	106	119	128	112	113	126	114	105	118	142	123	116	109
Merseyside	121	103	116	140	117	132	113	105	127	101	133	183	141	137
West Midlands	108	102	124	121	101	107	102	118	116	100	116	146	119	87
Greater London	111	103	95	68	108	91	94	94	96	97	97	91	122	135
Urban and rural aggregates:														
Conurbations	111	103	108	89	109	100	105	105	105	102	109	103	122	120
<i>Areas outside conurbations:</i>														
Urban areas with populations of 100,000 and over	107	104	103	115	91	104	115	108	102	105	117	101	111	98
Urban areas with populations of 50,000 and under														
100,000	98	99	104	110	107	100	88	85	101	100	99	151	99	103
Urban areas with populations under 50,000	94	97	94	96	97	97	98	98	101	101	95	105	86	86
Rural districts	85	95	90	110	83	100	90	96	90	92	82	63	73	78
Hospital regions:														
Newcastle	105	100	106	126	106	110	118	123	110	96	95	122	109	87
Leeds	102	104	120	102	83	88	106	113	105	111	105	33	101	106
Sheffield	94	97	79	115	73	75	100	101	103	98	115	81	88	83
East Anglia	96	104	104	104	92	96	102	93	97	119	57	134	86	88
North West Metropolitan	95	92	92	66	81	77	77	79	90	82	79	103	105	111
North East Metropolitan	103	91	73	66	90	96	83	81	93	90	102	47	115	108
South East Metropolitan	105	108	110	107	103	87	93	89	91	108	121	99	110	136
South West Metropolitan	100	102	104	84	99	87	79	82	87	99	99	117	107	132
Wessex	102	111	101	138	135	123	94	84	99	111	110	131	97	100
Oxford	89	86	69	55	59	80	87	84	93	82	82	60	81	78
South Western	91	101	101	81	117	112	90	92	97	98	86	126	80	93
Welsh	97	103	79	135	112	147	129	146	96	111	98	154	82	58
Birmingham	101	99	121	103	128	103	103	109	112	99	88	118	100	77
Manchester	105	105	113	121	109	115	121	118	105	110	124	87	105	105
Liverpool	117	103	125	116	118	125	110	111	131	103	111	215	130	118

Table C87 - continued

	Breast (170)		Cervix uteri (171)	Other parts of uterus (172-174)	Prostate (177)	Bladder (181.0, .8)		Bone (including jaw bone) (196)		Lymphosarcoma, reticulosarcoma (200)		Hodgkin's disease (201)		Leukaemia and aleukaemia (204)	
	M	F	F	F	M	M	F	M	F	M	F	M	F	M	F
ENGLAND AND WALES	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Standard regions:															
Northern	42	87	139	100	77	103	111	125	150	98	85	70	109	91	85
East and West Ridings	129	91	115	84	97	114	108	132	142	97	71	92	77	79	102
North Western	116	99	112	103	95	101	96	112	103	71	105	106	109	102	98
North Midland	144	100	100	130	89	89	89	72	73	83	106	103	86	95	94
Midland	76	100	94	107	98	89	83	109	109	87	94	95	91	98	86
Eastern	69	102	94	99	101	92	90	82	76	99	109	104	106	103	93
London and South Eastern	110	107	83	90	110	106	112	82	98	127	102	113	99	115	112
Southern	68	98	93	103	113	114	98	89	98	107	116	100	106	93	112
South Western	52	102	91	94	104	91	104	99	77	98	123	79	111	100	96
Wales	170	95	118	119	96	89	82	129	128	108	80	107	112	90	95
Conurbations:															
Tyneside	168	93	125	126	81	108	138	62	25	79	83	87	56	87	83
West Yorkshire	120	93	130	82	87	115	114	140	175	80	47	85	35	74	94
South East Lancashire	87	97	112	110	92	111	92	101	113	79	116	87	94	102	113
Merseyside	171	91	107	68	82	101	133	122	135	93	168	140	92	113	96
West Midlands	96	110	86	102	89	96	87	106	84	104	90	80	110	91	84
Greater London	100	108	86	88	111	114	116	89	86	127	103	120	95	115	115
Urban and rural aggregates:															
Conurbations	108	103	98	93	100	110	111	99	100	107	101	106	89	104	106
<i>Areas outside conurbations:</i>															
Urban areas with populations of 100,000 and over	153	100	114	101	102	111	107	105	127	102	98	95	108	90	93
Urban areas with populations of 50,000 and under 100,000	126	96	109	100	97	100	99	90	74	91	98	103	105	102	92
Urban areas with populations under 50,000	59	97	102	109	101	98	89	111	98	94	97	95	97	97	96
Rural districts	85	99	88	102	100	80	87	91	96	97	103	97	116	102	102
Hospital regions:															
Newcastle	45	86	137	94	73	102	116	118	148	91	78	66	107	92	82
Leeds	108	94	130	94	98	110	104	129	159	110	77	81	79	85	101
Sheffield	105	97	101	122	88	94	100	97	85	74	93	104	83	85	103
East Anglia	84	105	104	96	105	108	101	74	13	64	63	91	161	105	89
North West Metropolitan	77	96	86	88	97	92	101	75	53	103	109	89	80	105	110
North East Metropolitan	80	98	74	81	100	95	91	121	78	119	108	140	111	97	87
South East Metropolitan	115	116	89	102	123	108	117	58	107	136	91	95	94	127	133
South West Metropolitan	142	105	115	88	108	111	107	87	124	135	128	128	104	113	102
Wessex	74	117	111	112	128	112	104	82	86	155	95	104	121	99	123
Oxford	156	88	69	86	104	119	92	68	126	89	118	115	74	111	99
South Western	82	104	95	98	104	93	107	112	74	93	136	75	113	98	92
Welsh	170	95	118	119	96	89	82	129	128	108	80	107	112	90	95
Birmingham	76	100	94	107	98	89	83	109	109	87	94	95	91	98	86
Manchester	121	102	117	116	101	106	92	118	106	71	91	88	102	83	87
Liverpool	107	99	108	81	88	93	113	102	95	76	139	146	124	122	103

Table C88. Cancer, death rates per million living, by sex and age, and Standardised Mortality Ratios (all ages) by sex, for selected sites, 1954 to 1963, England and Wales

All ages	MALES										S.M.R. (1950-52 = 100)	Year	FEMALES										S.M.R. (1950-52 = 100)	
	0-	5-	15-	25-	35-	45-	55-	65-	75-	85 and over			All ages	0-	5-	15-	25-	35-	45-	55-	65-	75-		85 and over
All sites (140-205)																								
2,223	106	64	105	173	587	2,087	5,720	10,914	16,590	17,730	103	1954	1,861	80	52	72	197	711	1,871	3,556	6,305	10,350	13,509	98
2,252	105	68	99	189	548	2,061	5,803	11,008	17,026	17,308	104	1955	1,873	102	50	63	202	681	1,860	3,550	6,308	10,272	13,551	98
2,274	109	75	101	178	561	2,019	5,885	11,102	16,962	18,038	105	1956	1,891	100	61	71	201	697	1,809	3,559	6,250	10,350	13,682	97
2,312	100	64	109	185	534	2,035	5,950	11,231	17,111	17,849	106	1957	1,890	83	47	57	178	693	1,813	3,559	6,113	10,284	13,277	96
2,333	116	80	90	184	520	2,047	5,869	11,504	17,230	17,761	106	1958	1,929	87	52	72	191	701	1,865	3,521	6,240	10,294	13,862	97
2,366	100	67	98	185	550	2,020	5,983	11,624	17,457	17,889	107	1959	1,929	90	63	69	199	697	1,841	3,487	6,113	10,336	14,016	97
2,391	96	80	99	194	531	2,008	6,038	11,663	17,478	18,543	108	1960	1,943	95	59	62	191	689	1,879	3,445	6,203	10,174	13,901	97
2,391	118	67	100	194	522	2,030	5,986	11,801	17,558	19,859	108	1961	1,948	80	60	62	178	669	1,906	3,576	6,143	9,991	13,606	96
2,416	94	64	108	174	499	2,002	6,104	12,093	18,141	19,777	110	1962	1,949	91	57	66	185	721	1,866	3,593	6,111	9,944	13,348	96
2,417	111	76	102	179	501	2,013	6,022	12,284	18,070	20,180	111	1963	1,952	78	57	63	185	690	1,908	3,554	6,019	10,148	13,754	96
Kidney (180)																								
32	13	1	1	2	6	40	104	144	138	41	108	1954	20	9	4	0	2	6	15	33	75	106	130	104
33	12	3	0	4	10	43	91	141	164	141	112	1955	18	13	4	1	2	5	13	40	61	90	48	95
33	12	4	1	3	12	36	92	137	180	125	110	1956	20	14	4	1	3	5	14	38	72	91	121	103
33	11	2	1	2	8	41	96	141	156	81	109	1957	19	5	3	0	3	3	10	42	67	97	92	95
35	14	2	2	2	11	40	89	161	194	148	117	1958	22	15	3	2	1	6	19	35	68	112	154	109
32	5	1	1	3	11	39	93	131	192	44	107	1959	20	9	3	0	1	8	15	30	76	91	109	98
32	10	2	-	4	8	37	88	146	169	64	106	1960	22	10	4	2	1	8	17	37	72	113	108	109
34	11	1	1	5	12	36	94	127	215	141	111	1961	22	8	3	1	1	8	14	49	65	103	115	107
37	11	5	2	1	9	44	106	161	177	191	123	1962	21	10	4	1	2	8	18	38	67	93	98	103
36	11	3	-	1	12	48	91	161	192	223	120	1963	22	7	3	1	1	7	14	39	76	104	122	106
Brain and other parts of nervous system (193)																								
39	13	11	10	16	40	76	118	56	25	-	109	1954	27	17	13	9	18	24	47	62	36	11	12	120
42	24	16	9	19	35	83	118	65	23	13	117	1955	27	19	11	9	14	26	44	61	40	10	-	117
41	22	17	11	17	39	74	111	75	19	-	114	1956	28	18	10	8	15	29	47	67	42	20	-	125
41	15	10	13	19	39	77	118	68	19	12	114	1957	29	9	10	8	11	27	50	76	44			

Table C88 - continued

All ages	MALES										S.M.R. (1950-52 = 100)	Year	All ages	FEMALES										S.M.R. (1950-52 = 100)
	0-	5-	15-	25-	35-	45-	55-	65-	75-	85 and over				0-	5-	15-	25-	35-	45-	55-	65-	75-	85 and over	
Bone (including jaw bone) (196)																								
17	1	4	11	4	6	13	29	75	112	122	81	1954	14	2	5	7	2	4	8	25	52	55	87	95
16	1	6	9	4	6	9	32	67	122	115	78	1955	12	2	4	4	4	4	8	20	36	51	90	79
18	1	7	14	6	9	15	32	66	98	100	86	1956	13	3	5	9	4	6	8	19	38	68	58	89
16	1	3	12	5	6	12	34	54	114	163	77	1957	12	2	4	6	2	3	9	17	39	68	87	83
16	3	5	11	6	4	13	32	62	102	136	77	1958	13	3	6	10	5	5	7	15	36	57	101	86
15	-	4	12	4	5	12	28	61	92	111	71	1959	11	1	6	9	3	3	7	14	26	62	83	75
15	-	4	11	7	6	11	28	55	92	117	72	1960	11	1	5	7	4	3	8	16	30	47	60	71
16	1	4	10	5	4	14	27	68	96	141	74	1961	11	1	7	6	1	3	9	14	32	53	55	72
14	-	4	13	5	6	12	28	45	78	138	67	1962	11	4	6	8	1	4	7	13	29	51	44	70
12	0	3	10	2	7	13	24	34	76	106	58	1963	10	1	3	3	4	2	6	13	29	60	52	65
Leukaemia and aleukaemia (204)																								
54	52	28	24	21	36	48	97	180	184	162	110	1954	44	36	21	20	15	27	38	74	125	132	112	110
57	38	26	25	21	34	55	106	206	244	90	117	1955	43	51	23	16	18	26	42	62	110	131	120	107
57	47	29	29	23	33	49	95	179	285	250	116	1956	47	41	29	19	22	21	36	77	125	151	92	115
60	46	28	27	24	31	47	110	194	318	267	122	1957	47	41	21	12	18	31	43	70	117	172	120	115
60	46	35	22	24	33	48	114	193	262	205	121	1958	46	37	20	11	16	25	41	66	124	191	160	113
60	49	34	24	21	40	41	105	191	314	200	121	1959	52	39	30	19	20	28	46	77	128	183	145	125
67	45	36	25	22	44	55	104	229	349	340	134	1960	51	41	24	16	18	21	41	81	138	190	202	124
63	56	30	27	23	31	51	111	211	306	271	127	1961	52	34	24	15	17	26	46	78	134	196	202	125
61	42	27	26	22	29	52	105	212	373	223	124	1962	55	37	23	18	19	33	48	74	147	198	213	131
66	44	34	26	28	31	55	107	238	370	286	133	1963	55	37	27	15	18	27	45	86	129	220	231	131

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All ages	MALES								S.M.R. (1950-52 = 100)	Year	All ages	FEMALES								S.M.R. (1950-52 = 100)
	25-	35-	45-	55-	65-	75-	85 and over	25-				35-	45-	55-	65-	75-	85 and over			
Lip, tongue, rest of mouth (140-144)																				
44	2	3	18	65	222	613	878	90	1954	13	1	4	9	17	48	100	161	91		
42	1	4	11	68	210	605	718	85	1955	14	0	3	12	21	35	123	174	94		
37	1	1	12	50	190	541	788	75	1956	15	1	4	10	25	50	94	185	97		
35	1	3	9	54	178	468	698	69	1957	14	1	3	7	21	42	105	185	91		
37	2	2	16	52	168	517	784	73	1958	14	1	1	8	19	45	111	191	91		
35	1	5	14	43	176	486	656	69	1959	13	1	1	10	21	38	102	130	85		
32	2	2	18	48	146	403	660	63	1960	14	1	3	8	19	40	104	202	89		
30	1	6	18	47	119	394	748	60	1961	13	1	3	9	19	46	71	184	82		
28	0	5	13	40	140	346	785	57	1962	12	0	3	7	17	39	77	196	78		
26	1	5	10	43	116	350	710	54	1963	12	0	2	5	19	32	82	157	73		

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All ages	MALES								S.M.R. (1950-52 = 100)	Year	All ages	FEMALES								S.M.R. (1950-52 = 100)
	25-	35-	45-	55-	65-	75-	85 and over	25-				35-	45-	55-	65-	75-	85 and over			
Pharynx (145-148)																				
27	1	6	15	59	141	277	338	106	1954	15	2	8	21	30	49	55	62	104		
25	2	5	11	59	124	254	308	97	1955	14	3	6	20	30	43	57	84	100		
20	1	5	10	47	109	192	262	79	1956	14	2	6	16	31	46	47	87	95		
24	1	4	15	41	135	211	337	90	1957	15	1	6	15	33	54	61	71	103		
22	1	5	13	49	96	240	205	83	1958	14	3	7	20	33	36	51	53	96		
22	1	4	17	47	108	214	256	85	1959	13	3	7	13	28	41	46	73	87		
19	1	2	15	40	96	185	149	73	1960	14	1	7	19	31	46	48	69	96		
18	2	3	13	41	87	146	249	68	1961	14	2	5	16	31	45	60	46	95		
18	2	7	13	30	96	197	170	71	1962	14	2	5	14	29	48	57	67	93		
16	0	3	12	37	82	143	212	63	1963	13	2	6	15	29	38	61	70	90		
Oesophagus (150)																				
61	1	8	37	123	330	683	811	85	1954	40	1	6	25	68	149	314	404	104		
63	2	9	36	126	337	737	679	88	1955	41	1	10	24	57	161	334	365	106		
64	1	10	37	141	329	696	775	88	1956	41	2	6	26	67	152	307	387	104		
61	1	8	39	119	322	646	709	82	1957	41	0	5	27	61	152	315	375	103		
60	2	6	34	123	345	599	557	81	1958	42	1	5	20	62	159	321	441	104		
63	1	8	37	127	331	643	856	85	1959	41	1	5	21	64	141	302	409	99		
59	2	6	36	113	299	653	777	79	1960	43	1	7	28	60	144	306	453	102		
61	1	7	38	131	308	621	803	82	1961	44	2	5	26	67	155	307	428	106		
61	2	7	43	130	314	594	977	84	1962	44	1	7	24	66	145	313	458	104		
60	2	7	40	129	313	586	933	83	1963	44	2	7	26	66	148	319	379	105		
Stomach (151)																				
369	12	88	318	919	1,981	2,979	2,581	95	1954	273	13	43	161	433	1,074	2,115	2,366	92		
373	12	71	331	905	1,954	3,169	2,859	95	1955	268	11	42	146	395	1,058	2,080	2,605	90		
360	10	76	293	909	1,907	2,938	2,712	91	1956	268	11	45	139	394	1,008	2,126	2,503	89		
369	16	64	311	901	1,893	3,095	2,930	93	1957	258	11	42	119	392	977	1,967	2,380	84		
365	10	69	303	885	1,926	2,954	2,830	92	1958	264	12	41	128	362	1,001	2,032	2,495	85		
362	11	65	294	863	1,925	2,986	2,744	91	1959	262	10	37	126	355	951	2,019	2,668	83		
356	11	63	283	873	1,845	2,898	2,543	88	1960	258	11	37	125	347	949	1,890	2,729	81		
348	12	65	280	842	1,816	2,851	2,950	87	1961	252	11	38	115	341	933	1,865	2,314	79		
341	9	57	265	850	1,765	2,859	2,665	86	1962	245	10	38	116	335	853	1,819	2,441	76		
339	11	65	260	827	1,824	2,805	2,672	86	1963	245	9	31	118	332	829	1,858	2,635	76		
Large intestine, except rectum (153)																				
190	7	43	111	354	975	2,187	2,784	93	1954	238	12	56	149	373	832	1,875	2,776	92		
183	12	38	112</																	

Table C88 - continued

All ages	25-	35-	45-	55-	65-	75-	85 and over	S.M.R. (1950-52 = 100)	Year	All ages	25-	35-	45-	55-	65-	75-	85 and over	S.M.R. (1950-52 = 100)
MALES									FEMALES									
									Rectum (154)									
157	6	27	95	288	854	1,737	2,108	91	1954	108	7	28	74	184	381	776	1,099	96
149	7	22	95	311	760	1,664	1,615	86	1955	104	7	20	69	183	378	708	1,078	91
147	4	21	77	281	794	1,679	1,938	84	1956	103	5	27	74	163	382	670	1,081	90
144	7	20	83	274	773	1,575	1,663	82	1957	98	4	22	65	152	357	666	1,043	84
144	4	23	91	291	735	1,585	1,568	82	1958	107	4	21	69	171	367	731	1,197	91
140	5	23	83	272	729	1,492	1,789	79	1959	111	6	23	68	166	368	806	1,145	93
137	5	21	86	253	718	1,448	1,872	77	1960	103	3	17	68	147	375	696	1,030	86
131	5	21	73	264	659	1,371	2,017	74	1961	102	3	21	70	149	345	680	1,049	84
130	5	21	73	267	663	1,410	1,794	74	1962	101	3	22	68	152	335	669	1,072	84
129	5	19	83	245	671	1,371	1,909	74	1963	105	3	18	69	146	350	728	1,093	86
									Pancreas (157)									
83	3	20	71	204	448	667	784	105	1954	67	1	10	40	111	275	462	689	100
86	2	19	69	216	441	718	795	108	1955	71	2	9	45	121	294	465	623	105
86	2	16	74	223	442	712	538	107	1956	67	2	10	32	126	276	442	549	98
87	3	15	76	218	471	656	709	108	1957	74	1	15	43	129	275	510	603	107
91	3	16	75	214	472	762	886	113	1958	75	2	9	40	122	305	476	718	107
95	0	17	71	238	500	762	933	117	1959	79	2	10	42	141	289	534	658	111
94	1	18	70	229	485	770	957	115	1960	79	1	12	42	115	308	540	739	111
93	2	17	77	225	471	747	998	114	1961	80	1	8	44	132	304	504	731	111
93	2	14	80	218	496	773	786	115	1962	84	3	10	42	142	317	526	778	116
98	4	16	84	237	500	826	901	122	1963	82	2	13	45	134	302	536	675	113
									Trachea, bronchus and lung (162, 163)									
657	25	181	934	2,410	3,040	2,018	838	122	1954	102	11	41	122	235	379	388	373	107
693	24	175	895	2,539	3,310	2,280	1,000	128	1955	106	10	39	120	261	390	416	275	111
726	25	172	918	2,625	3,473	2,473	1,288	133	1956	111	10	40	122	267	393	445	428	115
759	20	169	915	2,724	3,658	2,655	1,384	138	1957	116	9	40	133	280	390	476	364	118
784	23	166	916	2,684	3,923	2,969	1,182	142	1958	119	11	48	135	278	401	468	404	121
831	24	182	912	2,849	4,171	3,211	1,378	149	1959	123	10	46	147	287	411	467	368	124
856	28	158	898	2,879	4,316	3,564	1,862	153	1960	132	8	52	146	300	458	517	399	132
871	24	163	921	2,875	4,525	3,705	1,887	156	1961	140	8	51	158	325	480	541	474	141
895	24	159	907	2,935	4,778	3,882	1,847	161	1962	146	9	50	162	353	484	581	396	146
909	23	146	903	2,918	4,951	4,185	1,994	164	1963	152	6	46	183	353	534	553	527	152

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MALES									FEMALES									
									Breast (170)									
4	-	2	4	8	19	30	27	125	1954	364	34	228	528	747	1,060	1,537	2,354	100
4	0	1	2	12	14	28	64	119	1955	369	39	207	546	756	1,062	1,535	2,317	100
3	-	1	4	8	16	17	50	105	1956	371	35	212	531	750	1,067	1,549	2,341	100
3	-	0	2	10	17	24	47	105	1957	370	32	196	538	767	1,029	1,535	2,228	99
3	-	2	3	6	14	37	34	109	1958	383	39	214	556	757	1,089	1,525	2,351	101
3	-	0	2	7	13	24	56	92	1959	371	35	201	551	742	1,050	1,409	2,192	97
3	0	0	2	5	16	25	53	92	1960	382	33	194	569	774	1,051	1,498	2,217	100
4	-	1	4	8	20	25	33	118	1961	389	33	188	584	810	1,043	1,526	2,240	102
3	0	1	3	9	11	37	53	114	1962	389	37	206	569	829	1,048	1,457	2,170	102
3	-	1	4	6	12	29	43	101	1963	390	40	208	590	813	1,020	1,505	2,269	102
									FEMALES									
									Cervix uteri (171)									
105	20	72	172	239	302	321	304	90	1954	52	1	12	44	136	184	262	267	95
108	24	79	156	254	314	325	275	92	1955	50	2	8	47	129	175	237	281	91
108	27	78	165	235	316	328	312	91	1956	51	1	8	51	135	185	218	249	92
106	24	93	150	223	302	331	332	89	1957	52	2	7	45	133	179	277	201	93
116	24	99	178	246	304	348	378	96	1958	51	1	8	45	131	178	248	191	90
109	20	100	162	208	286	371	399	90	1959	52	1	8	41	130	190	223	301	91
110	21	109	183	192	279	354	379	90	1960	53	2	7	39	133	187	237	300	92
105	16	92	171	214	255	338	363	87	1961	52	0	8	45	123	197	221	294	91
104	10	106	174	200	262	324	373	86	1962	52	1	11	39	126	203	210	262	91
102	11	99	177	193	255	311	396	84	1963	49	2	8	39	120	167	236	235	85
									FEMALES									
									Corpus uteri (172)									
157	0	2	21	160	904	2,520	3,297	107	1954	114	14	63	202	283	318	313	292	101
156	-	2	16	152	917	2,484	3,244	105	1955	121	13	70	207	305	335	322	359	106
165	0	0	16	163	937	2,684	3,588	111	1956	121	13	74	191	323	317	348	306	106
161	0	2	14	150	929	2,558	3,302	107	1957	124	12	73	210	315	325	330	277	107
166	-	2	18	156	922	2,707	3,511	111	1958	124	11	52	199	321	359	332	255	106
164	-	1	16	154	882	2,696	3,833	109	1959	125	17	57	187	322	353	365	311	107
166	-	1	15	160	912	2,589	4,011	110	1960	125	15	62	188	319	341	374	261	107
164	-	2	14	140	875	2,783	3,872	110	1961	128	15	60	201	337	345	352	322	109
169	-	2	20	160	850	2,915	4,183	114	1962	127	13	60	190	328	371	353	267	109
166	0	1	19	146	863	2,849	4,517	113	1963	126	13	52	195	310	371	367	348	108
									FEMALES									
									Ovary, Fallopian tube, and broad ligament (175)									

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Table C88 - continued

All ages	25-	35-	45-	55-	65-	75-	85 and over	S.M.R. (1950-52 = 100)	Year	All ages	25-	35-	45-	55-	65-	75-	85 and over	S.M.R. (1950-52 = 100)
MALES																		
Bladder (181.0, .8)																		
87	1	11	54	212	464	839	1,027	101	1954	36	2	4	15	52	147	296	391	106
91	2	8	60	197	500	929	1,013	105	1955	36	1	4	19	51	145	298	341	106
93	1	13	60	201	494	941	1,250	108	1956	36	-	4	14	42	143	294	514	104
94	1	11	51	202	493	985	1,209	107	1957	36	-	4	13	50	142	285	448	104
92	1	8	46	200	511	929	1,091	105	1958	36	-	4	16	50	140	283	372	103
91	0	10	51	203	501	871	1,089	103	1959	40	1	3	16	57	139	307	508	111
96	-	8	46	194	549	987	1,149	109	1960	39	0	4	17	50	136	320	355	106
96	2	12	54	193	534	935	1,323	109	1961	38	0	5	15	49	144	259	478	103
103	1	11	47	200	585	1,085	1,497	117	1962	39	0	3	19	54	132	301	418	107
99	1	4	52	205	534	1,074	1,389	113	1963	37	0	3	16	54	117	292	405	100
Other urinary organs (181.7)																		
1	-	-	1	2	4	9	-	175	1954	1	0	0	0	3	5	3	12	111
1	-	-	0	2	3	3	-	115	1955	1	-	-	-	2	3	6	-	77
1	-	-	1	2	4	2	-	123	1956	1	-	1	-	2	5	10	12	130
1	-	-	2	1	3	12	-	186	1957	1	-	-	1	3	4	7	5	118
1	-	0	0	3	1	3	-	111	1958	1	-	-	1	1	3	1	5	61
1	-	-	0	1	6	12	11	174	1959	1	-	-	0	2	5	2	5	94
1	-	-	1	2	3	7	-	135	1960	1	-	0	1	3	1	3	10	88
1	-	-	0	3	1	8	-	134	1961	1	-	0	1	1	5	10	5	120
1	-	0	1	1	2	5	11	124	1962	1	-	1	1	0	5	8	4	103
1	-	-	2	2	3	7	-	177	1963	1	-	-	0	1	3	6	4	77
Hodgkin's disease (201)																		
23	24	29	30	39	51	39	27	107	1954	13	12	11	11	22	32	30	12	105
23	28	26	29	40	49	44	13	106	1955	12	12	12	14	18	30	20	42	104
24	26	28	23	49	56	47	12	108	1956	13	16	13	13	22	27	36	12	112
27	28	32	37	48	50	54	47	124	1957	12	13	11	14	23	26	30	-	104
22	25	21	29	38	45	56	34	100	1958	13	14	12	14	22	32	24	11	113
25	30	25	38	42	51	58	11	114	1959	14	18	15	13	24	28	33	36	118
23	23	29	31	41	44	44	11	106	1960	15	14	13	15	24	34	43	20	125
24	28	31	32	40	56	50	54	112	1961	13	12	9	14	21	23	36	51	108
24	31	25	33	41	56	67	11	112	1962	15	16	13	14	22	38	39	13	122
23	27	20	36	38	39	48	32	106	1963	13	12	15	11	20	21	39	13	105

Table C89. Leukaemia and aleukaemia (ICD No. 204), death rates per million living, by sex and age, 1958 to 1963, England and Wales

Year	0-14			15-24			25-44			45-64			65 and over			All ages		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
Acute leukaemia (ICD No. 204.3)																		
1958	34.6	21.4	28.2	16.7	8.5	12.6	17.6	11.6	14.6	32.1	24.7	28.2	71.9	48.8	57.8	30.4	21.9	26.0
1959	31.8	29.2	30.5	19.7	16.6	18.2	17.7	14.0	15.9	28.3	27.1	27.7	67.8	43.8	53.1	28.8	25.2	26.9
1960	34.9	26.6	30.8	20.8	12.5	16.7	22.0	11.7	16.8	35.7	26.1	30.7	98.0	53.1	70.4	35.7	24.6	30.0
1961	32.7	23.6	28.3	21.4	13.4	17.4	16.5	14.5	15.5	32.7	26.1	29.3	85.0	56.1	67.1	31.7	25.3	28.4
1962	27.4	24.4	25.9	20.3	12.8	16.6	15.2	16.0	15.6	32.1	28.4	30.2	94.4	62.6	74.7	30.5	27.2	28.8
1963	31.7	26.0	28.9	19.4	12.1	15.8	17.8	13.9	15.9	33.6	31.2	32.4	91.7	68.4	75.3	32.1	28.1	30.0
Remainder of leukaemia and aleukaemia (ICD 204 rem.)																		
1958	3.8	4.4	4.1	5.7	2.8	4.3	11.2	9.2	10.2	44.2	27.7	35.5	141.4	98.2	115.0	29.4	24.5	26.9
1959	6.8	3.6	5.2	4.5	2.1	3.3	13.4	10.1	11.7	40.3	33.2	36.6	158.7	102.8	124.4	31.3	26.7	28.9
1960	4.3	2.9	3.6	4.0	3.4	3.7	11.2	8.2	9.7	40.5	33.5	36.9	170.2	105.2	130.3	31.2	26.8	28.9
1961	6.3	3.7	5.0	5.5	2.0	3.7	10.7	7.3	9.0	45.3	35.1	40.0	155.7	102.2	122.6	31.3	26.6	28.9
1962	4.8	4.1	4.4	5.5	4.7	5.1	10.0	10.5	10.3	43.9	32.3	37.8	163.3	104.6	126.9	30.9	27.4	29.1
1963	5.7	4.8	5.3	6.6	3.3	5.0	11.5	8.7	10.1	45.8	33.5	39.4	184.9	99.1	131.6	34.0	26.5	30.1

Table C90. Diseases of the circulatory system, vascular lesions affecting the central nervous system, and congenital malformations of circulatory system, death rates per million living, and Standardised Mortality Ratios (1950-52 = 100), by sex, 1953 to 1963
England and Wales

Abbreviated List No.	ICD No.		1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	
B24	400-402	Rheumatic fever	M	7	7	5	5	4	3	3	3	3	2	
			F	7	6	5	5	4	3	3	3	2	2	
B25	410-416	Chronic rheumatic heart disease	M	157	148	140	142	138	118	113	112	115	112	104
			F	240	237	232	223	225	208	195	196	205	199	188
B26	420	Arteriosclerotic heart disease including coronary disease	M	1,860	2,016	2,097	2,206	2,230	2,395	2,385	2,561	2,612	2,766	2,883
			F	1,012	1,084	1,163	1,222	1,243	1,368	1,393	1,497	1,567	1,655	1,737
B26	421	Chronic endocarditis not specified as rheumatic	M	71	81	75	75	81	77	69	76	72	75	70
			F	60	64	60	59	70	65	65	66	69	68	67
B26	422	Other myocardial degeneration	M	1,230	1,177	1,179	1,112	976	988	868	809	789	736	706
			F	1,603	1,528	1,550	1,490	1,335	1,382	1,275	1,232	1,230	1,169	1,142
B27	430	Acute and subacute endocarditis	M	9	9	10	9	9	9	9	8	9	8	9
			F	6	5	5	5	6	6	5	6	5	5	5
B27	431-434	Other diseases of heart	M	216	231	230	235	253	260	249	265	279	274	280
			F	248	250	261	273	286	300	298	310	340	337	342
B28, 29	440-447	Hypertension with or without mention of heart disease	M	451	457	458	444	419	400	362	353	331	303	291
			F	453	472	498	486	464	469	437	423	424	386	376
B46 (part)	450	General arteriosclerosis	M	224	225	225	220	198	221	209	211	218	213	220
			F	233	228	251	242	231	253	261	269	289	285	296
B46 (part)	465	Pulmonary embolism and infarction	M	18	19	22	21	22	22	29	32	34	35	37
			F	19	19	21	25	24	29	31	34	38	40	45
Rem. of 451-468		Other circulatory diseases	M	68	76	81	89	95	101	104	112	118	131	148
			F	70	79	85	94	93	101	102	115	124	132	145
400-468		Diseases of the circulatory system	M	4,311	4,446	4,521	4,558	4,425	4,595	4,401	4,542	4,579	4,654	4,752
			F	3,950	3,973	4,131	4,124	3,980	4,183	4,065	4,151	4,293	4,277	4,344
400-468		Standardised Mortality Ratios	M	95	97	98	99	95	98	94	96	98	100	103
			F	92	90	92	91	86	89	85	86	88	87	88
B22	330-334	Vascular lesions affecting the central nervous system	M	1,356	1,433	1,454	1,442	1,411	1,439	1,412	1,405	1,394	1,398	1,413
			F	1,716	1,811	1,868	1,877	1,854	1,921	1,883	1,909	1,923	1,939	1,987
B41 (part)	754	Congenital malformations of circulatory system	M	43	45	47	47	52	52	50	53	54	59	
			F	34	33	33	34	39	37	39	43	44	45	

Table C91. Diseases of the circulatory system, vascular lesions affecting the central nervous system, and congenital malformations of circulatory system, deaths and death rates per million living, and per 100 deaths from all circulatory diseases, by sex and age, 1963, England and Wales

Abbreviated List No.	Cause of death	Males							Females							
		All ages	0-	15-	25-	45-	65-	75 and over	All ages	0-	15-	25-	45-	65-	75 and over	
B24	Rheumatic fever	Deaths	52	13	7	7	19	4	2	45	4	2	5	13	9	12
		Rate	2.3	2.4	2.1	1.1	3.4	2.8	2.9	1.9	0.77	0.61	0.82	2.1	4.2	9.0
		Per cent	0.0	19.4	4.9	0.2	0.1	0.0	0.0	0.0	10.0	2.0	0.4	0.1	0.0	0.0
B24	Chronic rheumatic heart disease	Deaths	2,382	4	43	399	1,130	491	315	4,542	1	28	514	1,960	1,096	943
		Rate	104	0.73	13	64	200	340	461	188	0.19	8.5	84	320	510	703
		Per cent	2.2	6.0	30.1	13.0	3.6	1.6	0.7	4.3	2.5	28.6	43.5	16.0	4.3	1.4
B26	Arteriosclerotic heart disease	Deaths	65,840	-	14	1,993	24,496	21,245	18,092	42,016	2	3	285	6,422	13,761	21,543
		Rate	2,883	-	4.2	320	4,332	14,725	26,493	1,737	0.39	0.91	47	1,049	6,397	16,067
		Per cent	60.7	-	9.8	65.1	77.7	67.4	42.9	40.0	5.0	3.1	24.1	52.4	53.6	32.7
B26	Degenerative heart disease	Deaths	17,719	8	25	144	1,395	3,420	12,727	29,240	5	10	50	901	3,916	24,358
		Rate	776	1.5	7.4	23	247	2,370	18,637	1,209	0.96	3.0	8.2	147	1,820	18,167
		Per cent	16.3	11.9	17.5	4.7	4.4	10.9	30.2	27.8	12.5	10.2	4.2	7.3	15.2	37.0
B27	Other diseases of heart	Deaths	6,602	37	29	151	1,174	1,869	3,342	8,399	20	17	98	782	1,951	5,531
		Rate	289	6.8	8.6	24	208	1,295	4,894	347	3.9	5.2	16	128	907	4,125
		Per cent	6.1	55.2	20.3	4.9	3.7	5.9	7.9	8.0	50.0	17.3	8.3	6.4	7.6	8.4
B28	Hypertension with heart disease	Deaths	4,082	-	1	45	924	1,381	1,731	6,201	-	1	17	656	1,834	3,693
		Rate	179	-	0.30	7.2	163	957	2,535	256	-	0.30	2.8	107	853	2,754
		Per cent	3.8	-	0.7	1.5	2.9	4.4	4.1	5.9	-	1.0	1.4	5.3	7.1	5.6
B29	Hypertension without mention of heart	Deaths	2,574	-	5	162	807	676	924	2,901	-	4	63	459	779	1,596
		Rate	113	-	1.5	26	143	469	1,353	120	-	1.2	10	75	362	1,190
		Per cent	2.4	-	3.5	5.3	2.6	2.1	2.2	2.8	-	4.1	5.3	3.7	3.0	2.4
B46 (part)	Other circulatory diseases	Deaths	9,282	5	19	180	1,595	2,423	5,060	11,762	8	33	150	1,071	2,347	8,153
		Rate	406	0.92	5.7	26	282	1,679	7,410	486	1.5	10	25	175	1,091	6,081
		Per cent	8.5	7.5	13.3	5.2	5.1	7.7	12.0	11.2	20.0	33.7	12.7	8.7	9.1	12.4
All circulatory diseases		Deaths	108,513	67	143	3,061	31,540	31,509	42,193	105,106	40	98	1,182	12,264	25,693	65,829
		Rate	4,752	12	43	491	5,578	21,839	61,785	4,344	7.7	30	194	2,003	11,944	49,097
		Per cent	100	100	100	100	100	100	100	100	100	100	100	100	100	100
B22	Vascular lesions affecting central nervous system	Deaths	32,264	38	53	499	6,046	9,666	15,962	48,076	24	40	469	5,660	11,860	30,023
		Rate	1,413	7.0	16	80	1,069	6,699	23,374	1,987	4.6	12	77	925	5,513	22,392
B41 (part)	Congenital malformations of circulatory system	Deaths	1,395	1,089	83	87	91	28	17	1,099	821	39	72	103	42	22
		Rate	61	199	25	14	16	19	25	45	158	12	12	17	20	16

Table C92. Diseases of the circulatory system, and vascular lesions affecting the central nervous system, death rates per million living, by sex, at age 45-64, in the standard regions, conurbations, urban and rural aggregates outside the conurbations, and hospital regions, 1963, England and Wales

	All causes		Vascular lesions affecting central nervous system (330-334)		Chronic rheumatic heart disease and chronic endocarditis (410-416, 421)		Arteriosclerotic heart disease (420)		Myocardial degeneration (422)		Other diseases of heart (430-434)		Hypertension with or without heart disease (440-447)	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
ENGLAND AND WALES	14,439	7,581	1,069	925	300	361	4,332	1,049	147	106	208	178	306	182
Standard regions:														
Northern	16,287	8,316	1,296	1,087	297	389	5,130	1,349	134	146	252	149	260	176
East and West Ridings	15,348	8,025	1,215	998	290	456	4,867	1,320	155	102	191	131	267	188
North Western	16,818	8,395	1,389	1,040	341	437	5,187	1,349	181	144	305	173	336	191
North Midland	13,283	7,270	979	852	284	434	3,795	887	152	111	219	124	333	245
Midland	14,799	7,455	1,145	922	301	357	3,998	974	201	86	201	133	372	172
Eastern	11,968	6,852	864	878	204	221	3,526	893	119	105	191	112	204	174
London and South Eastern	13,497	7,163	827	774	289	318	4,034	882	94	57	164	107	278	143
Southern	12,885	7,047	986	810	280	293	3,826	893	111	111	158	108	287	171
South Western	13,350	7,477	965	1,051	276	285	3,936	861	250	185	204	124	329	198
Wales	16,393	8,111	1,324	1,118	486	448	5,209	1,213	139	113	207	121	448	289
Conurbations:														
Tyneside	17,660	8,471	1,307	1,029	314	463	5,228	1,288	142	130	223	139	334	130
West Yorkshire	16,767	8,556	1,386	1,114	282	530	5,602	1,565	150	96	221	138	244	196
South East Lancashire	17,018	8,483	1,336	1,059	347	491	5,052	1,313	193	144	303	182	343	182
Merseyside	17,817	7,851	1,328	927	368	510	5,602	1,338	112	116	316	133	230	203
West Midlands	15,639	7,484	1,187	925	349	367	3,843	986	201	65	180	119	412	187
Greater London	13,783	7,130	784	740	305	344	4,127	887	70	48	161	98	271	141
Areas outside conurbations:														
Urban areas with populations of 100,000 and over	15,431	7,944	1,132	926	306	409	4,589	1,075	167	100	213	136	357	219
Urban areas with populations of 50,000 and under 100,000	14,550	7,566	1,149	879	235	337	4,361	1,088	183	127	201	134	324	190
Urban areas with populations under 50,000	14,279	7,568	1,149	1,017	313	330	4,446	1,064	163	139	211	133	311	199
Rural Districts	12,377	7,239	962	939	273	286	3,678	926	151	121	211	125	276	172
Hospital regions:														
Newcastle	16,456	8,331	1,294	1,094	309	387	5,156	1,360	136	145	264	161	270	175
Leeds	15,619	8,316	1,281	1,046	257	430	5,133	1,435	156	126	203	140	249	179
Sheffield	13,859	7,516	1,027	895	301	465	3,973	964	163	106	210	118	326	250
East Anglia	12,489	7,072	1,029	909	216	239	3,413	861	149	154	194	149	238	138
North West Metropolitan	12,800	6,593	702	671	276	271	4,002	817	63	61	143	72	249	164
North East Metropolitan	12,836	6,875	782	744	230	329	3,885	937	61	48	181	103	227	147
South East Metropolitan	13,067	7,302	882	867	273	281	3,829	899	101	68	205	135	299	139
South West Metropolitan	13,026	7,099	860	778	301	299	3,779	807	147	51	124	102	251	145
Wessex	13,940	8,057	1,018	910	235	364	4,175	1,024	142	132	162	136	348	182
Oxford	12,250	6,565	1,036	905	271	290	3,479	813	78	87	188	111	250	160
South Western	13,730	7,657	973	1,062	287	292	4,069	861	270	206	212	112	347	209
Welsh	16,393	8,111	1,324	1,118	486	448	5,209	1,213	139	113	207	121	448	289
Birmingham	14,799	7,455	1,145	922	301	357	3,998	974	201	86	201	133	372	172
Manchester	16,975	8,674	1,444	1,110	362	432	5,243	1,375	210	160	312	181	375	175
Liverpool	17,323	8,262	1,322	949	303	462	5,363	1,375	124	110	298	161	285	235

Table C93. Diseases of the circulatory system, and vascular lesions affecting the central nervous system, death rates per million living, by sex, at age 65 and over, in the standard regions, conurbations, urban and rural aggregates outside the conurbations, and hospital regions, 1963, England and Wales

	All causes		Vascular lesions affecting central nervous system (330-334)		Chronic rheumatic heart disease and chronic endocarditis (410-416, 421)		Arteriosclerotic heart disease (420)		Myocardial degeneration (422)		Other diseases of heart (430-434)		Hypertension with or without heart disease (440-447)	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
ENGLAND AND WALES	85,971	61,605	12,056	11,994	825	967	18,505	10,110	7,150	7,714	2,451	2,143	2,217	2,263
Standard regions:														
Northern	88,044	63,603	14,265	13,765	700	703	19,466	11,688	7,136	7,498	2,621	2,077	2,129	2,387
East and West Ridings	88,232	62,519	13,205	12,365	665	900	19,486	11,452	6,747	6,889	2,197	2,025	2,181	2,012
North Western	90,890	63,925	13,582	12,631	852	1,018	19,361	10,195	7,304	7,796	2,661	2,370	1,938	2,077
North Midland	82,609	60,075	12,633	12,211	788	674	15,737	8,750	8,251	8,723	2,866	2,385	2,406	2,483
Midland	86,319	61,030	12,734	12,182	730	908	17,530	9,620	7,356	8,099	2,422	2,178	2,253	2,178
Eastern	82,772	60,265	12,019	12,033	803	923	18,176	10,390	6,403	6,636	2,476	2,040	1,941	1,757
London and South Eastern	84,518	60,395	9,666	10,423	929	1,167	18,425	10,060	5,980	7,003	2,403	2,160	2,179	2,414
Southern	82,330	59,894	10,550	11,736	879	934	18,435	9,522	7,177	8,242	2,330	1,926	2,194	2,108
South Western	84,693	62,295	12,621	12,791	750	766	18,247	9,278	9,827	9,919	2,319	1,974	2,357	2,379
Wales	89,394	63,527	13,279	13,739	987	1,170	20,373	10,357	7,545	8,079	2,152	2,025	3,046	2,853
Conurbations:														
Tyneside	92,228	63,427	15,181	12,970	780	967	18,886	10,879	6,045	6,942	2,423	2,074	2,730	3,058
West Yorkshire	91,121	65,538	14,179	12,823	601	1,123	22,150	13,230	6,288	6,504	2,163	1,981	1,776	1,907
South East Lancashire	91,048	64,958	13,932	12,446	898	1,212	17,126	9,185	7,824	8,559	2,445	2,490	1,836	1,815
Merseyside	93,748	63,518	11,883	11,279	854	981	21,981	11,077	4,641	5,309	3,107	2,676	1,767	2,399
West Midlands	88,076	61,091	12,978	12,210	707	913	17,903	9,595	7,138	7,612	1,784	1,874	2,480	2,457
Greater London	85,674	60,519	8,852	9,724	1,026	1,330	18,879	10,514	5,145	6,164	2,214	2,168	2,269	2,587
Areas outside conurbations:														
Urban areas with populations of 100,000 and over	89,694	61,870	12,446	11,883	839	862	19,427	10,558	6,848	7,580	2,428	1,985	2,565	2,337
Urban areas with populations of 50,000 and under 100,000	86,372	59,666	12,153	11,808	718	757	19,043	9,899	7,603	7,575	2,677	2,145	2,000	2,068
Urban areas with populations under 50,000	86,960	61,786	13,351	13,010	741	811	18,643	9,883	8,298	8,576	2,560	2,086	2,301	2,185
Rural districts	79,331	61,179	11,693	12,761	842	905	16,773	9,327	7,780	8,653	2,533	2,224	2,093	2,164
Hospital regions:														
Newcastle	86,401	62,100	14,091	13,358	656	697	18,920	11,383	6,692	6,862	2,496	2,065	2,146	2,391
Leeds	90,158	68,032	13,477	13,764	667	989	20,989	12,895	7,025	7,564	2,466	2,180	1,978	2,034
Sheffield	81,810	58,450	12,628	11,663	734	668	15,578	8,545	7,709	8,162	2,538	2,235	2,434	2,436
East Anglia	93,629	68,133	13,261	13,097	805	956	19,727	11,097	8,936	9,027	2,838	2,398	1,637	1,566
North West Metropolitan	70,750	49,918	8,300	8,629	878	1,172	15,496	8,755	4,381	4,964	1,957	1,834	1,941	2,085
North East Metropolitan	79,723	51,606	9,499	9,244	811	891	17,434	9,341	4,340	4,320	2,315	1,861	2,197	2,022
South East Metropolitan	95,298	67,218	12,088	12,368	917	1,020	20,920	10,980	7,027	8,285	3,401	2,569	2,393	2,515
South West Metropolitan	84,899	65,335	9,832	11,461	826	1,245	18,530	10,202	7,564	8,788	1,866	2,047	2,000	2,424
Wessex	93,578	68,806	12,343	13,467	1,037	1,005	20,979	10,961	9,172	10,393	2,389	2,032	2,529	2,600
Oxford	77,054	54,768												

Table C94. Congenital malformations of the circulatory system (ICD No. 754), deaths and death rates per million living, by sex and age, 1955 to 1963, England and Wales

Age	1955		1956		1957		1958		1959		1960		1961		1962		1963	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Deaths																		
All ages	1,007	756	1,017	791	1,126	911	1,124	870	1,102	921	1,161	1,009	1,214	1,056	1,330	1,087	1,395	1,099
0-	645	430	677	506	725	553	726	528	724	584	747	612	793	635	887	687	879	687
1-	80	76	58	59	71	60	87	71	76	66	83	84	76	83	89	90	104	75
5-	53	55	60	49	68	55	52	53	79	67	86	83	106	75	85	75	106	59
15-	144	115	132	102	140	115	148	117	132	105	130	115	124	131	152	102	170	111
45-	67	58	65	53	94	95	86	79	69	68	85	79	87	85	88	86	91	103
65 and over	18	22	25	22	28	33	25	22	22	31	30	36	28	47	29	47	45	64
Death rates per million living*																		
All ages	47.1	32.8	47.3	34.2	52.0	39.2	51.7	37.2	50.4	39.2	52.6	42.6	54.3	44.3	58.7	45.2	61.1	45.4
0-	1.88	1.33	1.88	1.49	1.95	1.58	1.91	1.47	1.88	1.61	1.85	1.61	1.90	1.61	2.05	1.69	2.00	1.65
1-	59.4	59.2	43.3	46.3	52.6	46.8	63.7	54.7	54.6	49.9	57.7	61.5	51.5	59.4	58.3	62.2	66.0	50.2
5-	15.4	16.7	17.1	14.6	19.2	16.2	14.6	15.6	22.3	19.8	24.3	24.5	29.8	22.1	24.3	22.6	30.6	17.9
15-	16.0	12.5	14.8	11.2	15.7	12.7	16.6	13.0	14.8	11.6	14.5	12.7	13.5	14.4	16.1	11.0	17.7	11.8
45-	12.8	9.81	12.2	8.88	17.4	15.8	15.7	13.0	12.4	11.1	15.1	12.8	15.4	13.8	15.5	13.9	16.1	16.8
65 and over	8.85	7.15	12.2	7.03	13.5	10.3	12.1	6.79	10.6	9.43	14.3	10.7	13.3	13.8	13.7	13.6	21.2	18.3

*At ages under 1 year, per thousand live birth occurrences.

Table C95. Bronchitis (ICD Nos. 500-502), infant mortality rates per 1,000 live births, death rates per million living at ages over one year and Standardised Mortality Ratios (1950-52 = 100), 1953 to 1963, England and Wales

	Males										S.M.R. (All ages)
	Infant mortality	1-	5-	15-	25-	35-	45-	55-	65-	75 and over	
1953	0.70	42	5.7	5.5	11	73	486	2,036	5,007	10,062	99
1954	0.58	43	7.1	5.9	11	67	425	1,780	4,347	8,583	86
1955	0.65	48	5.8	9.5	11	73	475	1,997	4,868	9,531	96
1956	0.54	58	5.4	5.5	11	57	437	2,072	5,040	9,754	98
1957	0.45	39	4.8	4.0	11	65	431	2,034	4,683	8,503	92
1958	0.54	40	7.3	9.3	10	69	434	2,044	5,181	9,506	98
1959	0.57	40	6.2	5.2	12	53	411	1,958	5,126	9,624	96
1960	0.52	44	5.6	4.7	12	58	346	1,823	4,662	9,161	89
1961	0.44	56	5.3	5.2	11	52	382	2,058	5,590	10,753	104
1962	0.57	35	6.3	5.5	13	56	409	2,121	5,753	11,383	108
1963	0.59	44	5.8	7.1	9.0	59	418	2,168	5,984	12,640	114

Females											
1953	0.55	45	5.0	5.7	13	35	98	433	1,501	5,875	91
1954	0.41	30	6.8	5.3	8.2	24	95	330	1,133	4,358	68
1955	0.41	25	3.6	4.6	11	29	94	366	1,321	4,768	76
1956	0.35	31	4.5	4.0	10	34	89	384	1,293	4,889	77
1957	0.35	34	6.5	5.0	12	30	93	330	1,104	3,547	61
1958	0.40	32	5.3	6.4	11	31	103	390	1,168	4,067	68
1959	0.47	32	3.5	4.5	8.2	30	92	359	1,161	3,883	65
1960	0.40	28	3.3	2.4	7.2	23	85	288	916	3,277	54
1961	0.34	34	5.0	4.9	8.7	31	101	344	1,192	3,836	65
1962	0.41	35	5.4	3.4	7.3	29	109	357	1,234	4,202	69
1963	0.48	38	8.2	2.7	6.6	37	126	393	1,251	4,338	72

Table C99. Motor vehicle accidents, death rates per million living, by sex and age, and Standardised Mortality Ratios by sex, 1931 to 1963, England and Wales

	All ages	0-	10-	15-	20-	25-	35-	45-	55-	65-	75 and over	S.M.R. † (1950-52 = 100)
Males												
1931-35	208	184	93	204	368	210	133	153	206	363	678	143
1936-40	216	159	86	176	363	209	152	171	257	411	749	146
1941-45	199	198	113	152	227	193	149	160	228	353	556	130
1946	153	144	109	161	205	139	109	102	160	241	498	99
1947	146	134	75	127	209	139	106	111	147	246	460	95
1948	126	135	63	122	173	112	79	97	142	194	400	82
1949	140	123	80	147	226	117	103	101	137	229	451	91
1950	151	104	60	177	279	164	106	102	153	242	439	98
1951	161	112	88	178	308	174	112	117	160	231	505	105
1952	149	105	73	165	301	150	123	105	144	219	403	97
1953	158	98	61	170	307	164	110	126	160	245	518	103
1954	161	77	57	194	323	165	116	127	170	259	564	105
1955	171	83	64	234	388	170	125	130	164	273	540	111
1956	174	86	61	236	344	182	121	138	185	270	587	113
1957	170	74	58	254	378	164	130	125	166	263	604	111
1958*	186	81	68	305	386	175	140	142	191	271	638	121
1959*	202	77	67	384	476	180	137	147	207	319	626	131
1960*	215	83	63	411	476	200	151	173	221	301	678	140
1961*	213	83	70	413	440	201	151	150	196	330	750	138
1962*	200	80	74	377	407	172	136	162	199	295	643	129
1963*	201	89	77	380	400	187	134	152	212	277	599	129
Females												
1931-35	68	106	34	49	50	31	29	49	95	181	267	169
1936-40	64	84	30	49	48	29	27	45	85	173	279	158
1941-45	56	106	42	42	40	29	26	37	61	107	172	128
1946	47	72	30	36	27	21	20	27	56	100	185	105
1947	47	71	26	37	23	17	22	33	54	100	177	104
1948	43	79	31	25	16	14	19	21	49	101	157	96
1949	41	65	32	32	30	10	16	22	44	95	151	91
1950	46	64	25	40	30	17	19	35	48	84	200	101
1951	49	58	22	47	37	19	23	35	54	101	198	107
1952	42	52	21	34	31	19	18	28	43	94	168	92
1953	45	56	25	36	37	16	18	33	49	87	181	97
1954	51	45	15	36	37	23	23	32	63	120	218	109
1955	55	52	26	58	45	22	26	32	57	121	235	117
1956	56	47	22	42	40	26	26	38	63	129	236	119
1957	53	42	22	42	46	24	22	37	59	117	222	111
1958*	60	43	23	50	49	29	23	43	65	144	254	126
1959*	69	48	25	60	67	32	28	48	81	146	289	143
1960*	80	46	34	78	62	36	38	61	101	173	306	165
1961*	79	55	20	92	62	42	37	54	83	182	297	162
1962*	74	47	34	70	50	31	34	55	83	163	304	152
1963*	73	47	30	59	46	36	32	53	96	165	270	149

*According to the Seventh Revision of the International Classification (Nos. E810-E835). Other years according to the classification in use at the time.
 †S.M.Rs. are based on civilian deaths and civilian populations for the years 1940-1949 inclusive.

Table C100. Deaths of pedestrians, pedal cyclists, motorcyclists, motor vehicle occupants, and others in motor vehicle traffic accidents, motor vehicle non-traffic accidents, and other road vehicle accidents, by sex, 1941 to 1963, England and Wales

	1941-45 (annual average)		1946-49 (annual average)		1950-54 (annual average)		1955-59 (annual average)		1960		1961		1962		1963	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Pedestrians:																
Motor vehicle traffic accidents	2,073 898		1,295 706		1,185 719		1,265 858		1,488 1,174		1,512 1,129		1,421 1,076		1,418 1,099	
Motor vehicle non-traffic accidents					43 8		43 6		36 6		50 4		34 5		29 6	
Other road vehicle accidents					166 70		79 47		63 36		34 28		20 25		19 23	
Pedal cyclists:																
Motor vehicle traffic accidents	557 140		464 86		462 77		459 73		477 91		481 74		412 68		431 58	
Motor vehicle non-traffic accidents					- -		1 -		2 -		1 -		1 -		- -	
Other road vehicle accidents					230 51		159 29		138 27		112 17		88 14		71 11	
Motorcyclists:																
Motor vehicle traffic accidents	651 27		659 48		1,018 83		1,234 102		1,529 151		1,382 125		1,190 93		1,140 85	
Motor vehicle non-traffic accidents					8 -		9 -		10 -		12 -		15 -		11 -	
Motor vehicle occupants and others:																
Motor vehicle traffic accidents	762 167		549 155		519 175		867 321		1,182 465		1,294 547		1,428 542		1,533 512	
Motor vehicle non-traffic accidents					64 2		25 1		30 2		21 2		21 -		27 2	
Other road vehicle accidents					47 11		26 6		27 11		11 8		6 7		8 12	

Table C101. Suicide, death rates per million living, by sex and age, in standard regions, conurbations, urban and rural aggregates outside the conurbations, 1959-1963, and hospital regions 1963, England and Wales

	Males					Females				
	All ages over 15	15-	25-	45-	65 and over	All ages over 15	15-	25-	45-	65 and over
1959-1963										
ENGLAND AND WALES	186	57	130	248	370	118	25	79	172	175
Urban and rural aggregates:										
Conurbations	207	78	151	268	399	134	35	96	188	196
Areas outside conurbations:										
Urban areas with populations of 100,000 and over	194	56	125	254	444	127	25	83	182	202
Urban areas with populations of 50,000 and under 100,000	190	56	137	250	381	136	19	89	200	205
Urban areas with populations under 50,000	178	49	125	236	339	109	20	61	162	175
Rural districts	151	36	100	217	308	83	18	58	128	107
Standard regions:										
Northern	183	38	134	256	359	93	15	62	147	131
East and West Ridings	196	61	132	265	386	118	26	72	167	198
North Western	208	68	146	271	412	128	23	74	182	218
North Midland	167	38	116	222	363	102	14	62	146	184
Midland	174	52	104	246	423	110	25	69	170	177
Eastern	180	49	105	226	320	107	27	61	170	158
London and South Eastern	204	79	156	256	372	142	38	109	199	184
Southern	162	46	125	214	338	109	17	86	166	131
South Western	176	46	113	241	359	110	20	69	158	163
Wales	167	42	117	232	305	83	18	58	120	123
Conurbations:										
Tyneside	204	36	138	287	439	115	13	80	181	163
West Yorkshire	212	90	140	278	399	129	33	83	164	221
South East Lancashire	230	91	168	299	423	129	17	77	183	218
Merseyside	163	36	124	240	296	91	19	69	128	148
West Midlands	176	63	107	243	437	123	35	79	179	208
Greater London	213	84	170	263	396	148	44	116	206	191
1963										
Hospital regions:										
Newcastle	183	42	143	253	343	131	19	110	194	175
Leeds	210	111	128	270	436	132	28	101	171	211
Sheffield	178	41	125	260	337	99	10	62	137	195
East Anglia	193	88	81	249	582	111	28	61	133	248
North West Metropolitan	214	89	212	268	262	149	76	149	203	122
North East Metropolitan	190	80	157	230	336	124	43	100	173	150
South East Metropolitan	189	72	133	245	367	149	29	117	196	227
South West Metropolitan	226	94	211	273	342	180	56	147	236	247
Wessex	176	80	114	216	430	133	24	103	177	212
Oxford	132	43	100	193	235	88	-	55	130	155
South Western	179	64	105	244	372	135	36	102	188	178
Welsh	179	53	138	254	287	88	28	65	98	166
Birmingham	181	48	102	292	386	111	31	75	169	168
Manchester	200	103	150	241	373	129	13	77	168	246
Liverpool	188	31	158	278	329	103	24	78	161	135

Table C102. Suicide, death rates per million living, by sex and age, and Standardised Mortality Ratios by sex, 1901 to 1963, England and Wales

	All ages	0-	10-	15-	20-	25-	35-	45-	55-	65-	75 and over	S.M.R.* (1950-52 = 100)
Males												
1901-10	157	1	4	36	91	152	252	397	523	508	382	170
1911-20	130	-	3	32	69	122	196	278	389	405	350	138
1921-30	166	-	2	31	78	111	211	346	487	513	438	149
1931-35	196	0	2	40	96	140	210	379	542	533	483	163
1936-40	172	-	2	32	89	118	177	284	462	477	466	113
1941-45	126	-	3	43	72	100	128	185	271	347	382	93
1946	138	-	5	31	49	94	154	200	300	391	465	103
1947	136	-	3	35	59	94	123	209	314	382	480	100
1948	144	-	2	29	74	86	134	219	338	469	388	108
1949	144	-	1	32	60	80	134	236	334	422	490	109
1950	136	-	1	30	60	70	122	222	323	416	421	102
1951	135	-	6	24	53	78	120	213	303	410	477	100
1952	132	-	1	34	55	78	120	198	320	389	413	98
1953	142	-	1	28	67	89	126	222	325	411	480	106
1954	149	-	3	26	59	93	145	235	340	430	439	110
1955	143	-	4	26	54	97	130	213	322	422	463	105
1956	149	-	2	25	65	94	130	221	350	428	490	109
1957	146	-	2	27	60	94	135	217	344	404	475	107
1958	146	-	2	28	64	104	147	219	329	366	457	106
1959	142	-	2	29	54	105	135	206	316	417	406	104
1960	139	-	2	30	86	115	139	200	308	329	384	101
1961	135	-	1	33	71	107	146	205	282	333	389	99
1962	144	-	3	35	102	109	162	216	280	356	444	105
1963	145	-	2	33	115	123	156	204	314	339	387	106
Females												
1901-10	49	-	3	34	45	56	81	109	108	88	49	103
1911-20	47	-	2	30	41	50	74	100	102	81	52	92
1921-30	63	-	1	25	43	57	87	135	143	108	63	110
1931-35	80	-	0	23	49	77	108	154	166	134	84	129
1936-40	79	-	1	14	38	65	99	155	169	142	89	122
1941-45	62	-	1	9	22	52	77	108	128	117	73	91
1946	74	-	1	15	26	53	87	135	157	146	92	108
1947	76	-	-	10	28	51	80	134	160	166	114	110
1948	78	-	-	11	20	50	80	141	183	173	98	113
1949	75	-	1	15	26	45	77	127	165	165	138	109
1950	70	-	1	10	23	34	75	124	157	153	115	101
1951	72	-	-	9	20	38	66	135	160	167	105	103
1952	68	-	1	11	12	35	66	118	154	164	97	97
1953	76	-	3	10	22	39	79	127	167	171	127	108
1954	81	-	-	12	23	52	77	135	167	198	130	115
1955	84	-	1	7	19	45	75	148	190	201	126	119
1956	90	-	1	11	27	49	71	156	203	217	141	126
1957	92	-	1	12	30	47	80	145	214	230	136	129
1958	91	-	-	13	33	50	83	151	190	208	162	127
1959	89	-	1	14	33	50	88	140	200	195	137	124
1960	87	-	2	15	38	56	86	147	180	186	119	121
1961	91	-	1	14	32	55	93	157	195	192	130	127
1962	97	-	2	12	36	73	90	153	211	207	151	135
1963	99	-	1	18	47	80	110	157	191	198	175	140

* S.M.Rs. are based on civilian deaths and civilian populations for the years 1940-1949 inclusive.

Table C103. Suicide, proportions per 1,000 suicides according to external agent, by sex and age, 1959-63, England and Wales

	Males					Females				
	All ages 15 and over	15-	35-	55-	75 and over	All ages 15 and over	15-	35-	55-	75 and over
Domestic gas poisoning	438	472	418	433	489	487	515	449	503	535
Other poisoning	200	202	254	171	108	328	305	363	315	281
Hanging or strangulation	141	117	133	153	159	57	41	59	58	63
Drowning	73	41	59	93	102	80	56	74	89	85
Firearms or explosives	57	75	48	57	55	4	12	5	1	1
Cutting and piercing instruments	29	11	24	37	48	8	5	10	8	6
Jumping from high place	20	21	17	22	18	17	18	16	16	26
Other agents	42	61	47	34	21	19	48	24	10	3
Total	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Total number of suicides	15,751	2,549	5,536	6,289	1,377	11,040	1,297	3,936	4,883	924

Table C104. Accidents in the home and residential institutions, deaths and death rates per million living, by sex and age, 1963, England and Wales

	All accidents in the home and residential institutions (E870-E936)		Poisoning by utility (illuminating) gas (E890)		Burns and scalds (E916, E917)		Fall on stairs, from ladders, and from one level to another (E900-E902)		Fall on same level (E903)		Unspecified falls (E904)		Other accidents in the home and residential institutions (rem. E870-E936)	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Deaths														
All ages	2,978	5,046	496	740	310	595	511	647	629	1,795	158	483	874	786
0-4	447	333	7	4	62	68	37	27	5	4	1	3	335	227
5-14	51	48	4	2	13	29	9	3	1	1	-	-	24	13
15-44	354	237	77	43	30	41	52	15	8	2	4	2	183	134
45-64	533	505	118	100	55	68	101	60	57	50	16	18	186	209
65-74	457	801	103	170	41	125	102	118	91	219	34	80	86	89
75 and over	1,136	3,122	187	421	109	264	210	424	467	1,519	103	380	60	114
Rates														
All ages	130	209	22	31	14	25	22	27	28	74	6.9	20	38	32
0-4	223	175	3.5	2.1	31	36	18	14	2.5	2.1	0.5	1.6	167	120
5-14	15	15	1.2	0.6	3.8	8.8	2.6	0.9	0.3	0.3	-	-	6.9	4.0
15-44	37	25	8.0	4.6	3.1	4.4	5.4	1.6	0.8	0.2	0.4	0.2	19	14
45-64	94	82	21	16	9.7	11	18	10	10	8.2	2.8	2.9	33	34
65-74	317	372	71	79	28	58	71	55	63	102	24	37	60	41
75 and over	1,663	2,328	274	314	160	197	308	316	684	1,133	151	283	88	85

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Table C105. Accidents in the home and residential institutions, deaths by month of occurrence, 1952-57, 1958-62 (annual averages), and 1963, England and Wales

ICD No.	Cause of death		PERSONS											
			Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
E870-E888	Poisoning	1952-57	17	16	18	17	16	14	15	16	14	19	14	15
		1958-62	31	25	28	32	24	26	22	23	23	27	27	29
		1963	46	46	50	36	42	39	39	28	38	40	48	42
E890-E895	Gas poisoning	1952-57	88	94	66	50	38	31	28	27	33	49	74	77
		1958-62	157	99	107	71	53	44	37	43	47	62	103	162
		1963	311	202	126	82	63	47	54	33	59	78	95	163
E900	Fall on stairs	1952-57	93	79	75	60	57	48	53	58	57	66	75	94
		1958-62	105	80	72	58	50	53	54	51	54	59	67	97
		1963	91	73	77	57	60	48	57	50	64	49	48	84
E901	Fall from ladders	1952-57	3	2	4	3	4	4	4	3	5	4	3	3
		1958-62	4	3	2	4	3	4	2	4	5	4	4	2
		1963	6	6	4	3	3	7	2	1	3	2	2	4
E902	Other falls from one level to another	1952-57	39	34	35	33	33	30	33	27	28	32	28	30
		1958-62	37	33	33	37	30	28	28	29	30	28	29	34
		1963	38	37	37	26	36	29	25	26	26	18	35	30
E903	Fall on same level	1952-57	115	118	112	88	88	89	85	90	90	98	96	108
		1958-62	190	185	199	150	146	134	143	129	135	147	156	193
		1963	322	281	286	200	211	141	176	166	138	146	157	209
E904	Unspecified falls	1952-57	155	142	154	124	118	100	102	91	102	112	117	143
		1958-62	134	109	108	88	96	85	70	73	68	75	81	108
		1963	77	83	61	44	41	28	42	47	39	55	54	75
E914	Accident caused by electric current	1952-57	4	2	4	3	2	3	3	5	4	4	5	4
		1958-62	5	5	4	3	4	5	4	4	4	3	3	6
		1963	12	6	7	7	2	-	8	3	3	6	10	4
E916	Accident caused by fire and explosion of combustible material	1952-57	83	92	66	51	30	29	24	20	21	37	47	71
		1958-62	99	82	82	54	39	32	22	18	21	30	53	88
		1963	166	135	118	56	50	27	34	29	22	32	41	122
E917	Accident caused by hot substance, corrosive liquid, and steam	1952-57	12	11	11	10	8	9	6	5	5	8	10	8
		1958-62	14	9	10	6	7	6	4	5	5	6	8	10
		1963	12	10	10	4	5	6	10	4	3	3	6	9
E921	Inhalation and ingestion of food causing obstruction or suffocation	1952-57	38	32	39	31	25	20	21	16	22	29	26	36
		1958-62	33	33	37	33	29	23	21	22	27	29	33	42
		1963	49	30	43	27	33	24	30	27	28	37	37	42
E924	Accidental mechanical suffocation in bed and cradle	1952-57	23	18	19	16	17	16	14	15	13	16	18	20
		1958-62	15	15	14	11	12	10	9	10	9	10	14	16
		1963	16	10	18	10	11	12	10	11	13	11	14	18
E929	Drowning and submersion	1952-57	3	3	5	6	6	9	5	6	6	5	4	4
		1958-62	5	4	6	5	6	7	5	6	5	4	7	4
		1963	2	-	5	6	8	6	1	5	5	1	8	7
Rem.E870-E936	All other accidents	1952-57	28	43	22	22	20	18	17	19	16	14	14	14
		1958-62	21	26	23	24	22	26	22	21	21	21	20	26
		1963	72	55	29	23	26	24	28	24	24	35	20	43
E870-E936	All accidents in the home and residential institutions	1952-57	700	687	629	515	462	420	409	398	416	495	532	627
		1958-62	850	706	727	575	520	484	443	437	455	505	603	817
		1963	1,220	974	871	581	591	438	516	454	465	513	575	852

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Table C106. Accidents in the home and residential institutions, deaths by cause and sex at age 65 and over, 1963, England and Wales

ICD No.	Cause of death	Home			Residential institutions		
		Male	Female	Persons	Male	Female	Persons
E870-E888	Accidental poisoning by solid and liquid substances	45	64	109	1	-	1
E871	Accidental poisoning by barbituric acid and derivatives	29	55	84	1	-	1
E883	Accidental poisoning by corrosive aromatics, acids, and caustic alkalis	3	-	3	-	-	-
Rem.E870-E888	Accidental poisoning by other solid and liquid substances	13	9	22	-	-	-
E890-E895	Accidental poisoning by gases and vapours	300	604	904	-	1	1
E890	Accidental poisoning by utility (illuminating) gas	290	590	880	-	1	1
Rem.E890-E895	Accidental poisoning by other gases and vapours	10	14	24	-	-	-
E900-E904	Accidental falls	776	2,132	2,908	231	608	839
E900	Fall on stairs	196	360	556	8	29	37
E901	Fall from ladders	16	4	20	-	1	1
E902	Other falls from one level to another	60	91	151	32	57	89
E903	Fall on same level	394	1,280	1,674	164	458	622
E904	Unspecified falls	110	397	507	27	63	90
E910-E936	Other accidents	208	477	685	32	37	69
E916	Accident caused by fire and explosion of combustible material	126	354	480	12	1	13
E917	Accident caused by hot substance, corrosive liquid, and steam	8	27	35	4	7	11
E921	Inhalation and ingestion of food causing obstruction or suffocation	10	14	24	10	15	25
E929	Accidental drowning and submersion	3	11	14	-	2	2
Rem.E910-E936	Remainder of other accidents	61	71	132	6	12	18
E870-E936	All accidents in the home and residential institutions	1,329	3,277	4,606	264	646	910

Table C107. Accidents in the home and residential institutions, deaths by cause, sex, and age, 1963, England and Wales

ICD No.	Cause of death	All ages	Age					75 and over
			0-	5-	15-	45-	65-	
E870-E888	Accidental poisoning by solid and liquid substances	{ M 222 F 261	21	2	59	94	33	13
E871	Accidental poisoning by barbituric acid and derivatives	{ M 156 F 210	1	2	44	79	25	5
E872	Accidental poisoning by aspirin and salicylates	{ M 16 F 18	5	-	3	5	1	2
E890-E895	Accidental poisoning by gases and vapours	{ M 550 F 779	9	4	97	140	107	193
E900	Fall on stairs	{ M 307 F 450	11	2	5	43	86	303
E901	Fall from ladders	{ M 31 F 9	-	-	6	9	7	9
E902	Other falls from one level to another	{ M 173 F 188	28	5	15	33	28	64
E903	Fall on same level	{ M 629 F 1,795	5	1	8	57	91	467
E904	Unspecified falls	{ M 158 F 483	1	-	4	16	34	103
E914	Accident caused by electric current	{ M 40 F 32	6	2	22	4	3	3
E916	Accident caused by fire and explosion of combustible material	{ M 275 F 547	50	11	29	47	39	99
	Burns by clothing	{ M 58 F 311	3	5	3	11	8	28
	from domestic fire (open)	{ M 13 F 95	1	3	1	1	-	7
	gas fire, stove, etc.	{ M 2 F 33	-	-	-	-	1	1
	electric fire	{ M 4 F 85	-	-	-	-	-	4
	other specified	{ M 28 F 45	1	-	2	8	5	12
	not specified	{ M 11 F 53	1	2	-	2	2	4
	Burns by falling into fire	{ M 41 F 57	1	-	2	6	7	25
	Burns by conflagration	{ M 81 F 90	30	4	11	11	11	14
	Burns by other specified means	{ M 78 F 76	12	2	12	19	7	26
	Burns by means not specified	{ M 17 F 13	4	-	1	-	5	7
E917	Accident caused by hot substance, corrosive liquid, and steam	{ M 35 F 48	12	2	1	8	3	9
E921	Inhalation and ingestion of food causing obstruction or suffocation	{ M 214 F 199	140	2	28	24	14	6
E924	Accidental mechanical suffocation in bed and cradle	{ M 94 F 54	91	1	1	-	1	-
E929	Accidental drowning and submersion	{ M 19 F 34	9	-	3	4	3	-
Rem.E870-E936	Other accidents	{ M 231 F 167	66	17	50	38	27	33
E870-E936	All accidents in the home and residential institutions	{ M 2,978 F 5,046	447	51	354	533	457	1,136
			333	48	237	505	801	3,122

Table C108. Accidental falls, death rates per million living, by sex and age, and Standardised Mortality Ratios by sex, 1901 to 1963, England and Wales

	All ages	Age groups										75 and over	S.M.R.* (1950-52 = 100)
		0-	10-	15-	20-	25-	35-	45-	55-	65-			
Males													
1901-10	84	45	25	23	24	39	69	119	209	420	1,253	169	
1911-20	107	38	30	39	36	56	93	155	254	454	1,373	213	
1921-30	85	25	18	31	31	37	56	93	161	352	1,306	146	
1931-35	93	25	18	31	33	37	47	79	146	338	1,609	146	
1936-40	120	31	24	34	40	51	58	95	177	414	1,910	178	
1941-45	109	35	26	40	30	41	58	87	157	337	1,448	156	
1946	86	27	21	25	26	30	43	57	107	245	1,203	115	
1947	97	31	26	33	42	36	50	68	108	254	1,352	126	
1948	80	27	22	22	27	37	41	49	85	211	1,122	104	
1949	78	20	18	28	31	33	38	57	68	185	1,162	100	
1950	74	14	18	19	25	29	34	50	71	183	1,139	93	
1951	86	17	17	17	34	35	40	51	85	241	1,275	108	
1952	79	16	17	23	30	30	30	47	78	221	1,169	99	
1953	84	14	10	22	29	30	33	52	80	246	1,254	104	
1954	99	11	9	20	23	27	39	52	86	280	1,659	122	
1955	94	14	16	13	25	28	38	44	85	248	1,574	115	
1956	99	9	15	16	31	25	34	45	77	281	1,698	120	
1957	92	15	13	20	21	23	29	47	78	262	1,491	111	
1958	92	14	10	15	27	28	32	41	82	232	1,561	112	
1959	96	15	11	17	21	27	34	46	87	259	1,588	116	
1960	86	12	17	22	23	22	29	48	78	207	1,417	104	
1961	85	17	10	15	22	22	31	44	78	217	1,382	103	
1962	89	14	19	23	33	21	28	45	78	219	1,492	108	
1963	91	18	16	18	23	26	33	45	92	228	1,495	112	
Females													
1901-10	68	27	6	4	4	10	26	64	132	389	1,657	143	
1911-20	69	20	6	5	5	8	20	50	108	356	1,752	132	
1921-30	73	13	4	4	4	5	10	31	85	318	1,845	117	
1931-35	100	14	5	3	3	6	8	30	92	388	2,283	138	
1936-40	136	18	6	4	5	6	12	34	123	476	2,714	167	
1941-45	118	17	8	5	6	6	11	26	81	346	2,135	127	
1946	110	15	4	3	5	6	6	11	59	260	2,037	110	
1947	111	11	7	9	4	4	5	15	58	286	1,947	108	
1948	100	11	4	4	4	3	4	18	51	231	1,726	94	
1949	105	10	6	3	2	2	4	13	50	232	1,840	98	
1950	113	8	2	2	1	3	5	14	45	230	1,994	103	
1951	117	9	-	2	5	3	3	12	46	240	2,034	105	
1952	105	9	2	2	5	2	5	11	44	218	1,743	92	
1953	123	7	4	2	2	4	5	15	50	241	2,018	106	
1954	141	6	3	3	1	3	5	13	45	295	2,249	118	
1955	144	8	3	2	-	2	6	15	50	281	2,261	118	
1956	149	8	3	2	4	2	5	13	50	275	2,338	120	
1957	142	9	2	1	2	2	5	14	40	250	2,178	111	
1958	149	6	2	-	3	1	5	12	41	273	2,247	115	
1959	151	12	3	1	3	4	5	12	46	259	2,234	115	
1960	150	8	2	3	3	2	6	14	46	256	2,190	113	
1961	146	9	1	1	3	3	7	13	46	255	2,083	108	
1962	145	12	2	1	1	1	4	15	47	233	2,075	107	
1963	149	12	1	3	2	3	4	14	46	250	2,102	109	

*S.M.R.s are based on civilian deaths and civilian populations for the years 1940-1949 inclusive.

Table C109. Accidental deaths, deaths, infant mortality rates per 1,000 live births, and death rates per million living at all ages and ages over one year, by sex and age, 1963, England and Wales

Cause of death (and ICD No.)	Rate per million living (All ages)	Deaths										
		All ages	0-	1-	5-	10-14	Total under 15	15-	25-	45-	65 and over	Total aged 15 and over
Home accidents*-												
Coal gas poisoning (E890)	{ M 22 F 31	496	2	5	2	2	11	30	47	118	290	485
Other poisoning (E870-E888, E891-E895)	{ M 12 F 12	276	2	21	-	2	25	10	69	116	56	251
Falls (E900-E904)	{ M 57 F 121	1,298	14	29	6	4	53	13	51	174	1,007	1,245
Burns and scalds (E916, E917)	{ M 14 F 25	310	17	45	11	2	75	10	20	55	150	235
Choking and suffocation (E921, E922, E924, E925)	{ M 15 F 11	278	222	30	4	3	259	14	27	28	25	94
Other (Remainder of E870-E936)	{ M 11 F 9	245	35	25	3	12	75	33	30	42	65	170
Total home accidents (E870-E936)	{ M 130 F 209	2,978	292	155	26	25	498	110	244	533	1,593	2,480
Transport accidents:												
Motor vehicle road accidents involving injury to:-												
Motor cyclist† (E814, E815, E821)	{ M 50 F 4	1,140	-	2	-	3	5	715	244	152	24	1,135
Pedal cyclist (E813)	{ M 19 F 2	431	-	9	25	73	107	57	48	128	91	324
Pedestrian (E812)	{ M 62 F 45	1,418	1	114	141	48	304	95	127	326	566	1,114
Occupant of motor vehicle (Remainder of E810-E825)	{ M 67 F 21	1,533	5	14	18	9	46	421	550	392	124	1,487
Other road accidents involving injury to:-												
Pedal cyclist (E843)	{ M 2 F 0	55	-	-	2	9	11	4	7	21	12	44
Pedestrian (E840-E842, E844)	{ M 0 F 1	10	-	-	-	-	-	-	-	1	9	10
All other transport accidents:- including rail, air, water (Remainder of E800-E866)	{ M 22 F 2	491	1	6	11	20	38	97	161	163	32	453
Total transport accidents (E800-E866)	{ M 76 F 222	5,078	7	145	197	162	511	1,389	1,137	1,183	858	4,567
Other accidents:												
Poisonings (E870-E895)	{ M 7 F 4	156	-	2	-	-	2	15	41	70	28	154
Falls (E900-E904)	{ M 34 F 28	775	3	3	11	24	41	55	133	203	343	734
Burns (E916, E917)	{ M 3 F 1	64	-	1	2	4	7	8	22	19	8	57
Drowning (E929)	{ M 22 F 6	509	1	39	76	33	149	84	98	111	67	360
Other (Remainder of E870-E936)	{ M 41 F 6	929	26	16	19	21	82	150	309	311	77	847
Total other accidents (E870-E936)	{ M 107 F 45	2,433	30	61	108	82	281	312	603	714	523	2,152
Total all accidents (E800-E936)	{ M 459 F 330	10,489	329	361	331	269	1,290	1,811	1,984	2,430	2,974	9,199
All accidents (E800-E936)												
Infant mortality rate and death rate per million living	{ M 459 F 330		0.75	229	192	155	236	539	318	430	1,399	530
			0.59	158	82	48	134	81	75	187	1,548	383

*Including deaths in residential institutions.

†Including passengers.

THE COLD WINTER OF 1963

Effect on mortality

In 1963 the number of deaths occurring in England and Wales exceeded the average for the three previous years by 26,500. If deaths occurring in the first quarters of these years only are considered the excess at 30,800 was even greater, showing the marked effect on mortality of the unusually cold early months of 1963. The following figures are the number of deaths in separate age-groups occurring in the first quarter of 1963, as compared with the average of the corresponding periods in 1960, 1961 and 1962:

Age-group	Total deaths - 1st quarter			
	Males		Females	
	Average 1960-62	1963	Average 1960-62	1963
0-4 weeks	1,902	1,882	1,347	1,378
4 weeks - 1 year	926	1,176	747	883
1-4 years	412	463	324	391
5-34 years	1,906	1,843	1,180	1,149
35-44 years	1,991	2,228	1,515	1,570
45-54 years	6,394	6,736	3,998	4,121
55-64 years	15,997	18,771	8,918	9,933
65-74 years	23,556	27,345	19,175	22,171
75 and over	31,341	39,018	44,784	56,176
Total	84,425	99,462	81,988	97,772

There was little change in the figures for infants under 4 weeks in spite of more babies being born in the first three months of 1963 than in the same period of any of the previous three years. However, in the case of infants aged 4 weeks - 1 year, even when allowance is made for a larger population at risk, the death rate in the first quarter of the year was 14 per cent higher in 1963. That for children aged 1-4 years was 9 per cent higher. No change was apparent in older children and young adults. Above the age of 35 years the effect of the cold spell again became discernible and was more marked at older ages, so that the increase in deaths of persons of over 75 years formed three fifths of the total excess of 30,800 deaths in the early months of 1963.

For deaths registered in the period 16th December 1962 to 9th March 1963, the rates per million population, adjusted by the area comparability factor, for the Administrative County of Cambridgeshire and twenty towns spread throughout England and Wales, were analysed in relation to temperature:

Area	Average temperature during period	Adjusted death rate per million	Area	Average temperature during period	Adjusted death rate per million
Bedford	28.9	2780	Liverpool	33.0	6005
Birmingham	30.3	3795	Maidstone	30.2	3172
Bradford	30.1	3269	Manchester	31.7	5349
Bristol	30.2	2603	Norwich	29.9	4285
Cambridgeshire A.C.	29.7	3030	Oxford	29.2	4008
Cardiff	31.0	2832	Plymouth	35.0	5142
Hastings	32.0	3766	Portsmouth	32.4	4316
Huddersfield	29.6	1765	Sheffield	31.1	2625
Hull	32.0	2770	Southampton	32.2	4383
London	32.4	5104	Tynemouth	34.3	4907
			York	31.2	4800

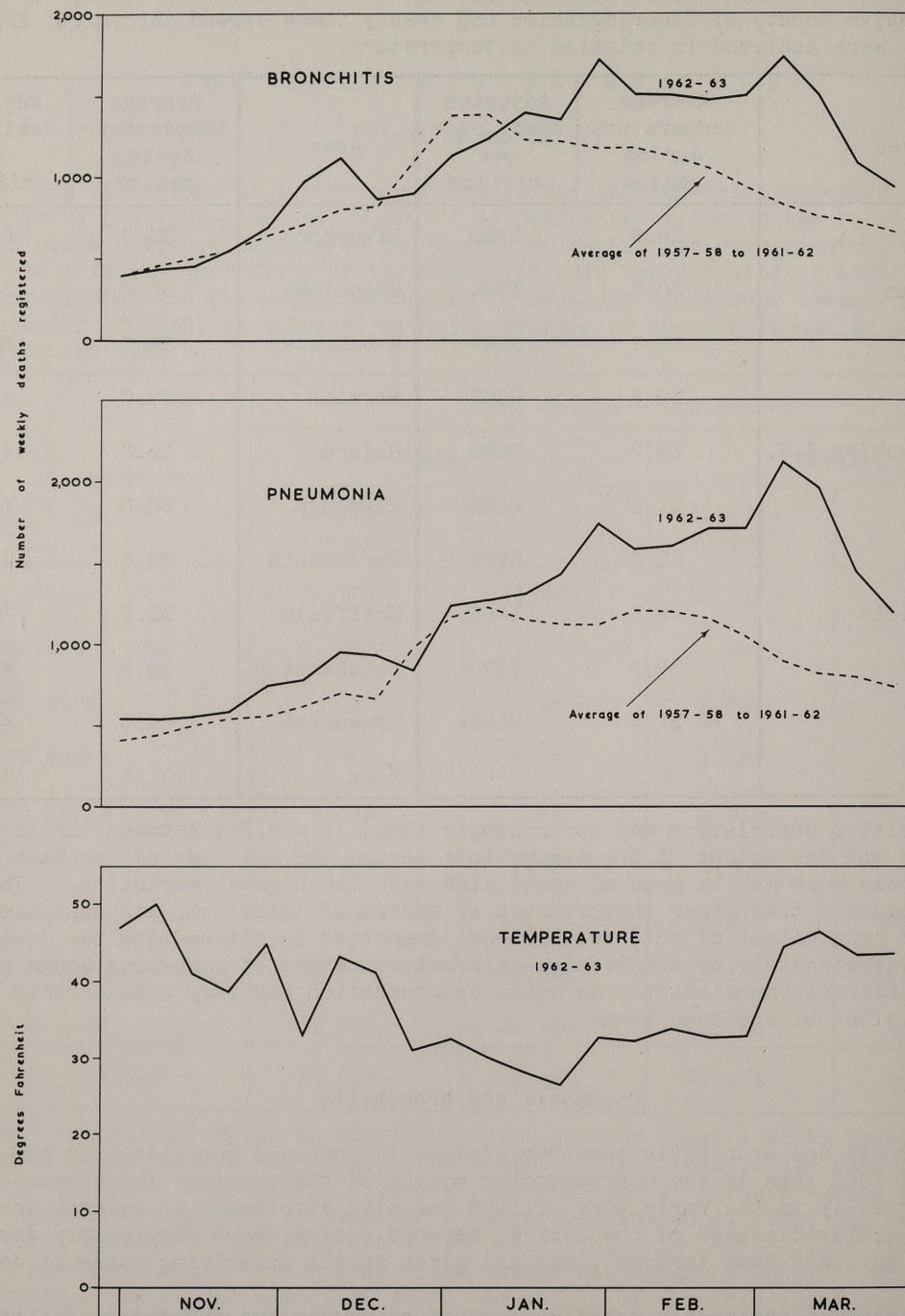
A positive correlation was surprisingly found ($r = +.65$) between the adjusted death rate and the height of the temperature during the cold period, so that the coldest areas were not in general associated with the highest mortality. This finding suggests that other factors such as spread of infection, air pollution or some other concomitant of cold weather were important in determining the death rates. Unfortunately no completely satisfactory method of comparing smoke pollution in different towns exists, as smoke concentration may vary considerably in different sites of the same town.

Pneumonia and bronchitis

Pneumonia and bronchitis together claimed 10 thousand more lives in the first quarter of 1963 than in the corresponding months of the previous three years. A higher mortality in the early part of 1963 was also attributed to several conditions such as vascular diseases of the central nervous system where respiratory disease, though it may have been terminal, was not given as the underlying cause of death.

In Diagram 5 the weekly notifications of pneumonia and bronchitis deaths in England and Wales from November 1962 to March 1963 are compared with the averages for the corresponding weeks in the five preceding years. The mean weekly temperatures from November 1962 to March 1963 are also shown. The death rate due to these

Diagram 5



Weekly registrations of deaths from bronchitis and pneumonia and mean weekly air temperatures, England and Wales

two causes was not only unusually high in the winter of 1962-63 but it remained high in March 1963 although the temperature rose early in that month. Spread by infection may have become the important factor at that stage.

Arteriosclerotic heart disease

There were 6,600 more deaths registered in the first quarter of 1963 than the average for the corresponding periods in 1960-62.

Comparison of the number of deaths due to arteriosclerotic heart disease with those due to respiratory disease in the different age-groups for the two periods are shown in Table C110. The proportionate increase in deaths due to respiratory disease in the early cold months of 1963 was 14 per cent in males aged 35-44 years and 47 per cent in those over 75 years; in the case of arteriosclerotic heart disease there was less variation with age, the corresponding figures being 20 per cent and 28 per cent. The same contrast was not shown in the figures for females, but this may have been partly due to random fluctuation in the small numbers of female deaths from arteriosclerotic heart disease in younger age-groups.

Table C110. Deaths from arteriosclerotic heart disease (ICD No. 420) and influenza, pneumonia and bronchitis (ICD Nos. 480-483, 490-493, 500-502) by sex and certain age-groups in the March Quarter, average 1960-1962, and 1963, England and Wales

Age-group	Arteriosclerotic heart disease			Influenza, pneumonia and bronchitis		
	Average 1960-62	1963	Per cent increase in 1963	Average 1960-62	1963	Per cent increase in 1963
Males						
All ages	16,685	20,547	23	16,047	21,590	35
35-44	406	487	20	173	198	14
45-54	1,715	1,990	16	827	986	19
55-64	4,159	5,207	25	3,064	4,015	31
65-74	5,481	6,587	20	4,966	6,380	28
75 and over	4,867	6,218	28	6,276	9,203	47
Females						
All ages	10,795	13,577	26	11,945	16,413	37
35-44	53	70	32	121	153	26
45-54	305	326	7	340	430	26
55-64	1,364	1,624	19	989	1,303	32
65-74	3,555	4,258	20	2,676	3,397	27
75 and over	5,511	7,289	32	7,246	10,436	44

Hypothermia

In the first quarter of 1963 there were 438 cases where hypothermia was shown on the death certificate to be a direct or contributory cause of the patient's death. In elderly patients, this condition was frequently associated with other pathological processes and it is possible that there were many other cases where hypothermia, though not mentioned in the death certificate, existed with other direct or contributory causes of death which were mentioned. Table C111(A) confirms the expected higher incidence at the extremes of life, and shows that the incidence per 1,000 deaths is greater in older females than males. The greatest number of cases occurred at the end of January and early February, Table C111(B). The geographical distribution of hypothermia does not necessarily coincide with that of winter respiratory disease, which is affected by other factors such as air pollution. The Southern and Eastern regions had markedly higher rates than other regions.

Table C111. Deaths with mention of hypothermia, which occurred and were registered in the March Quarter, 1963, England and Wales

(A) Deaths by sex and age and proportions per 1,000 total deaths

	All ages	Under 1 year	1-	10-	20-	30-	40-	50-	60-	70-	80 and over
Hypothermia											
{ M	168	35	-	-	1	-	3	9	20	39	61
{ F	270	20	-	-	-	-	2	14	27	94	113
Proportions											
{ M	1.74	11.97	-	-	1.61	-	0.83	0.77	0.87	1.33	2.64
{ F	2.84	9.28	-	-	-	-	0.80	2.25	1.86	3.12	3.00

(B) Deaths by week of occurrence and proportions per 1,000 total deaths registered

	Qtr.	January				February				March					
		5th	12th	19th	26th	2nd	9th	16th	23rd	2nd	9th	16th	23rd	30th	
Hypothermia	M	168	7	8	19	34	29	17	19	14	8	4	5	2	2
	F	270	7	15	27	53	46	50	18	19	11	14	4	4	2
	P	438	14	23	46	87	75	67	37	33	19	18	9	6	4
Proportions	P	2.28	0.97	1.56	2.99	5.38	4.34	4.16	2.33	2.10	1.21	1.03	0.57	0.44	0.32

(C) Deaths by regions and proportion per 1,000 total deaths

Region	Hypothermia		Proportions	
	Males	Females	Males	Females
England and Wales	168	270	1.74	2.84
Northern	8	4	1.19	0.65
East and West Ridings	16	29	1.82	3.51
North Western	11	21	0.73	1.44
North Midland	16	8	2.22	1.21
Midland	17	21	1.85	2.50
Eastern	30	37	3.87	4.91
London and South Eastern (inc. London A.C.)	31	93	1.26	3.55
London A.C.	11	33		2.72
Southern	21	37	3.37	6.00
South Western	12	13	1.51	1.57
Wales	6	7	0.99	1.36
Wales I	4	4	0.92	1.12
Wales II	2	3	1.17	1.89

Accidental deaths

Deaths from accidents caused by fire and explosion of combustible material (including burns by clothing, domestic gas, electric fire and conflagration) showed a marked increase from 809 in 1962 - at that time the highest in recent years - to 883 in 1963. The greater part of the increase was due to deaths from this cause in those over 65 years, the numbers for this age-group having risen from 435 in 1962 to 502 in 1963, while figures for children under 10 years of age increased from 117 to 146. The cold winter of 1963 was undoubtedly an important factor and Table C112 shows the trend in deaths from this cause in the early months of 1961, 1962 and 1963.

There was an equally significant increase in male and female deaths due to accidental poisoning by utility gas in 1963, affecting in the main both sexes of over 65 years. As there was a decrease in deaths due to suicide by gases in domestic use in 1963, and as it is frequently difficult to ascertain whether poisoning by gas is accidental or suicidal, the corresponding figures for suicide by gases in domestic use are also given in the table. The trends in the figures for deaths in the first quarter of the year indicate that the increase in accidental deaths due to utility gas in 1963 was probably not due to the inclusion of cases that would previously have been described as suicidal.

Table C112. Deaths from certain accidental and violent causes, 1961 to 1963

Period	Accident caused by fire and explosion of combustible material	Accidental poisoning by utility (illuminating) gas	Suicide by gases in domestic use
	ICD No. E916	ICD No. E890	ICD No. E972
1961			
Year	679	925	2,379
January-March	300	374	612
1962			
Year	809	1,146	2,469
January-March	322	466	655
1963			
Year	883	1,278	2,368
January-March	463	636	642

In 1963 there were 827 registrations of deaths due to accidental falls on stairs and 2,841 due to falls on the same level. Over 87 per cent of deaths due to both causes occurred in the home or a residential institution, the great majority of these again being of persons over the age of 65 years (91 per cent). Compared with 1962 or 1961, the figures show a slight decrease in the number of deaths due to falls on stairs, and though there was an increase for those due to falls on the same level it was by no means out of keeping with the general trend in recent years. There

were, however, many more deaths due to both causes in the cold first quarter of 1963 than in any other quarter, and it is open to question whether the large excess could be accounted for simply by more of these injuries in elderly people having been followed by fatal pneumonia, or whether there was an actual increase in these accidents. The quarterly incidence in 1963 was:

	Jan.-March	April-June	July-Sept.	Oct.-Dec.
Fall on stairs				
{ M	113	87	67	77
{ F	153	105	110	115
Fall on same level				
{ M	316	198	163	173
{ F	739	448	407	397

The Standardised Mortality Ratios for the standard regions in England and Wales in 1963 for falls on the stairs and on the same level are given in Table C113. The higher mortality rate due to these causes in the northern regions is evident.

Table C113. Accidental falls, Standardised Mortality Ratios in standard regions, 1963, England and Wales

Region	Falls on stairs		Falls on same level	
	Males	Females	Males	Females
Northern	171	96	169	154
East and West Ridings	126	192	140	159
North Western	140	124	145	124
North Midland	124	120	104	112
Midland	102	135	130	128
Eastern	48	94	82	93
London and South Eastern	79	65	63	62
Southern	94	78	87	81
South Western	65	63	62	75
Wales I	70	80	74	97
Wales II	62	77	48	94

THYROTOXICOSIS AND MYXOEDEMA

The death rate for thyrotoxicosis with or without goitre (ICD No. 252) has decreased considerably in the last 15 years in both males and females (Table C114). On the other hand the death rate due to myxoedema and cretinism is increasing (Table C115). It is evident, however, from examination of the separate sex-age groups (Table C115) that there has been no upward trend in mortality of females aged 45-64 years from myxoedema. The increase in death rate during the 15 years covered by the table is found in those females over 65 years of age, the change being more marked in the oldest age-groups. Mortality due to this cause in males is less than one sixth of that in females and numbers are small, but roughly the same trends are shown by males as described for females.

It is known that a not inconsiderable proportion of cases of thyrotoxicosis treated by radio-active iodine develop myxoedema, and that this complication may appear many years after radio-active iodine therapy. Diagram 6 shows death rates of females from thyrotoxicosis and myxoedema in five year age-groups for the quinquennia 1944-48 and 1959-63. For females below the age of 60 years in the second period there was no evidence of increased risk of death from myxoedema, although they undoubtedly included among their number patients who had had radio-active iodine. This may be due to an awareness on the part of the medical profession of this complication after isotope therapy so that there is early and effective control of the hypothyroid state. Nevertheless, as mentioned previously, myxoedema may appear many years after the use of radio-active iodine, so that these figures do not completely deny the possibility that radio-active iodine may be one cause of the increasing mortality from myxoedema.

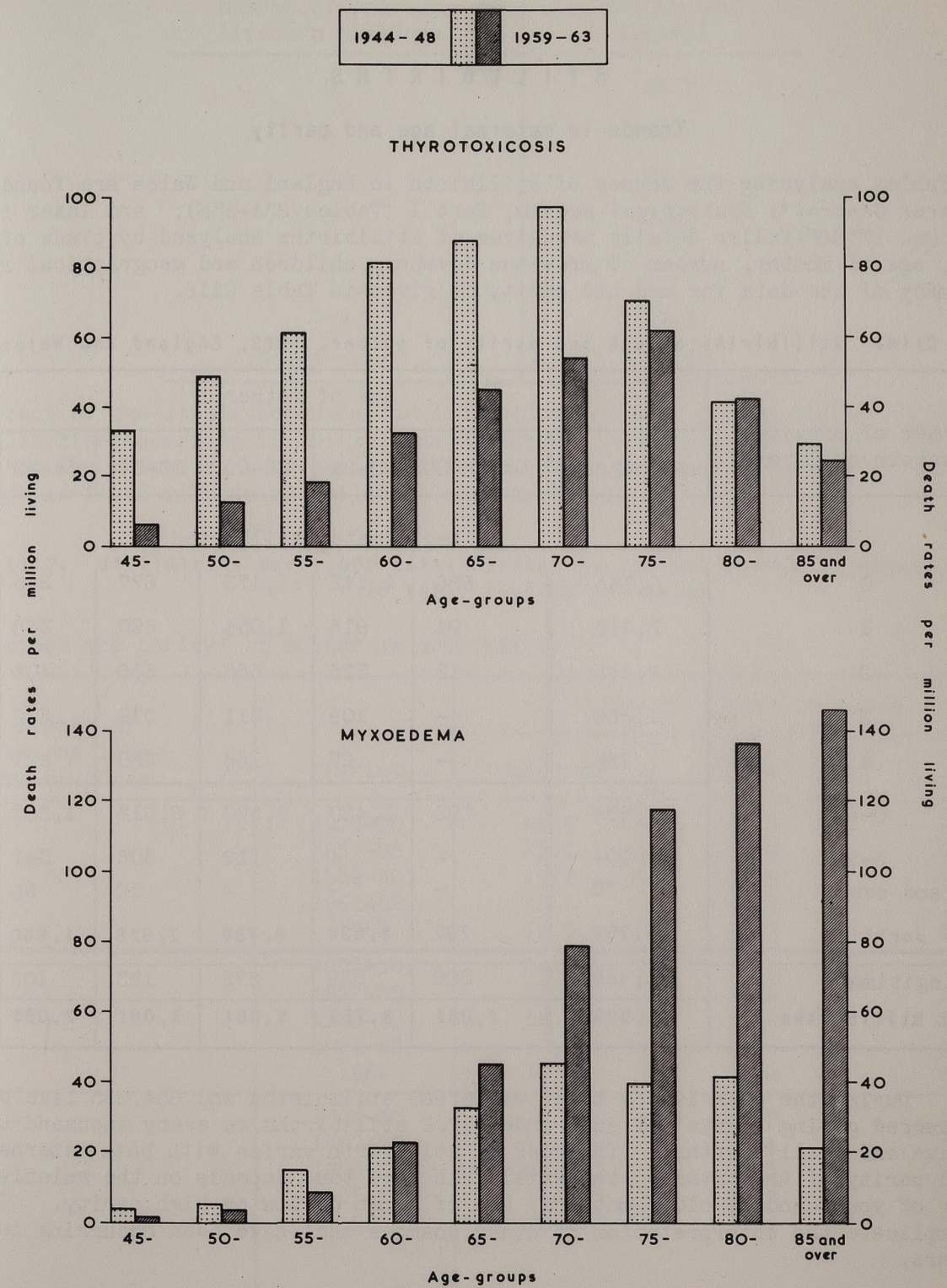
Table C114. Thyrotoxicosis with or without goitre (ICD No. 252), death rates per million living by sex and age, 1944-1963, England and Wales

Age	Males				Females			
	1944-48	1949-53	1954-58	1959-63	1944-48	1949-53	1954-58	1959-63
0-	-	-	0.12	0.21	-	-	0.25	-
5-	-	-	-	-	0.14	-	-	-
10-	0.28	-	-	-	-	0.14	-	-
15-	0.52	-	-	0.36	2.50	1.59	0.72	0.25
20-	1.43	0.42	0.15	0.28	2.74	2.83	1.43	0.55
25-	0.93	0.86	0.27	0.14	6.86	2.55	2.02	0.84
30-	1.59	0.52	0.49	0.53	7.74	3.53	2.82	1.62
35-	2.90	1.74	1.05	0.74	10.68	6.26	3.20	2.21
40-	3.49	2.29	2.02	1.44	17.38	8.71	4.77	4.38
45-	5.70	3.60	1.60	2.18	33.45	14.73	9.72	6.55
50-	9.72	6.94	2.67	3.98	48.79	25.29	15.59	12.71
55-	10.10	8.76	5.70	6.12	61.41	43.06	23.28	18.35
60-	12.65	13.29	10.01	7.76	81.32	60.59	38.90	32.53
65-	17.05	14.06	12.13	6.58	87.74	82.25	57.16	45.27
70-	9.48	12.12	12.07	7.98	97.46	76.81	56.37	54.14
75-	7.25	7.47	6.70	5.63	70.32	76.95	51.68	61.86
80-	-	4.68	5.21	3.97	41.56	34.94	40.84	42.13
85 and over	10.27	18.35	-	6.46	29.13	20.69	26.35	24.35
80 and over	2.95	8.46	3.66	4.75	37.40	30.15	35.95	35.93
All ages	4.28	3.30	2.33	2.08	26.33	19.33	13.45	12.02

Table C115. Myxoedema and Cretinism (ICD No. 253) death rates per million living by sex and age, 1944-1963, England and Wales

Age	Males				Females			
	1944-48	1949-53	1954-58	1959-63	1944-48	1949-53	1954-58	1959-63
0-	1.88	1.08	0.59	0.42	3.58	0.91	0.86	1.34
5-	0.14	0.12	-	-	0.72	0.12	0.11	-
10-	0.14	-	-	-	0.44	-	-	-
15-	-	-	0.14	0.12	0.28	0.14	0.14	-
20-	0.71	0.28	-	-	0.26	0.27	-	0.27
25-	-	0.25	0.54	0.41	0.76	0.61	0.27	0.28
30-	0.16	-	0.25	0.27	0.83	0.13	0.73	0.13
35-	0.41	0.12	0.26	0.12	1.15	0.48	0.51	0.61
40-	0.54	0.36	0.13	0.53	0.97	1.53	0.86	0.90
45-	0.30	0.13	0.49	0.77	4.15	2.33	2.52	1.73
50-	1.19	1.66	1.20	1.03	5.53	5.35	4.28	3.91
55-	2.99	2.19	2.12	2.28	15.04	9.68	8.49	8.72
60-	4.50	2.74	3.47	5.05	21.24	22.91	19.53	22.82
65-	2.84	6.90	5.81	9.02	32.65	39.98	39.63	45.10
70-	3.16	5.72	10.39	16.96	45.36	48.64	58.39	78.78
75-	4.83	6.94	10.31	22.54	39.58	46.97	70.07	117.56
80-	2.76	5.85	13.54	29.74	41.56	57.30	86.93	136.53
85 and over	-	12.23	9.85	27.98	21.04	46.90	83.62	146.08
80 and over	1.97	7.61	12.45	29.18	34.69	53.80	85.81	137.19
All ages	1.15	1.16	1.38	2.22	7.73	8.39	10.26	14.68

Diagram 6



Thyrotoxicosis with or without goitre and myxoedema, death rates of females per million living by age, 1944-1948 and 1959-1963, England and Wales

STILLBIRTHS

Trends in maternal age and parity

Tables analysing the causes of stillbirth in England and Wales are found in the Registrar General's Statistical Review, Part I (Tables 23A-23H); and later in this volume (pp. 177-188) fuller details are given of stillbirths analysed by place of occurrence, age of mother, number of previous liveborn children and geographical region. A summary of the data for age and parity is given in Table C116.

Table C116. Stillbirths by age and parity of mother, 1963, England and Wales

Number of previous liveborn children	Age of mother						
	All ages	Under 20	20-24	25-29	30-34	34-39	40 and over
	Legitimate stillbirths						
0	5,345	686	2,142	1,473	677	295	72
1	3,115	94	816	1,054	690	348	113
2	2,196	12	326	666	636	406	150
3	1,266	-	109	311	379	313	154
4	764	-	27	166	230	221	120
0-4	12,686	792	3,420	3,670	2,612	1,583	609
5-9	994	-	4	119	306	347	218
10 and over	73	-	-	-	10	30	33
All parities	13,753	792	3,424	3,789	2,928	1,960	860
Illegitimate	1,236	300	329	272	153	103	79
All Stillbirths	14,989	1,092	3,753	4,061	3,081	2,063	939

During the year 1963 a total of 14,989 stillbirths and 854,055 live births occurred giving a rate* of just under 17.2 stillbirths to every thousand total (live and still) births. The risk of stillbirth varies with both maternal age and parity of the mother; the stillbirth rate thus depends on the relative number of young and of older mothers, and of women of low or high parity. This may complicate the interpretation of other changes that have been occurring in recent years.

* This "rate" is the number of late foetal deaths per 1,000 total births, and differs from the ratio published in the Demographic Year Book (UNO) which is per 1,000 live births. It differs from the live birth rate in being a simple proportion; no population and no duration of time enter into its calculation. There are, however, practical conveniences in retaining a phraseology comparable with early neonatal mortality.

The median maternal age at delivery (total births, 1963) increases with parity:

Number of previous liveborn children	Median age (years)
0	23.7
1	26.7
2	29.0
3	30.9
4	32.4
5-9	34.7
10 and over	38.9

The effect of age itself accounts for a considerable part of the higher proportion of stillbirths occurring in multiparous mothers. Among younger mothers the second child has the lowest risk of being stillborn but at maternal ages over 40 the minimum risk is found with third children (see Table C118).

Table C117. Stillbirths per 1,000 total births, by age and parity of mother, 1955 to 1963, England and Wales

(a) By age and parity* of mother in combination

Number of previous live-born children	Period	Age of mother at birth		
		Under 25	25-34	35 and over
0	1955-56	21.7	28.3	47.6
	1957-58	21.2	26.5	44.1
	1959-60	19.3	25.0	40.9
	1961-62	18.1	22.6	37.5
	1963	16.1	21.7	33.0
1-3	1955-56	14.0	17.9	31.0
	1957-58	12.9	17.6	30.8
	1959-60	12.2	16.2	29.6
	1961-62	11.1	14.8	27.5
	1963	10.6	14.0	26.9
4 and over	1955-56	19.1	25.7	43.9
	1957-58	14.9	24.4	39.8
	1959-60	21.9	23.3	36.9
	1961-62	16.5	21.9	35.0
	1963	13.9	21.6	33.3

* Illegitimate stillbirths are assigned to parity 0 in this table

(b) By age and parity* of mother separately

Year	Age of mother at birth				Number of previous live-born children		
	All ages	Under 25	25-34	35 and over	0	1-3	4 and over
1955	23.2	19.6	21.9	37.1	26.0	19.1	34.3
1956	22.9	18.8	21.9	37.4	25.6	19.0	33.4
1957	22.5	18.8	21.2	36.4	25.0	18.8	31.9
1958	21.5	17.9	20.7	34.5	23.9	18.2	30.3
1959	20.8	17.1	19.9	34.6	23.0	17.6	29.7
1960	19.8	16.5	18.9	32.4	22.1	16.5	28.8
1961	19.0	16.0	18.1	32.0	21.1	16.0	28.0
1962	18.1	15.3	17.3	30.5	20.2	15.0	26.8
1963	17.2	14.1	16.8	29.7	18.8	14.6	26.2

*Illegitimate stillbirths are assigned to parity 0 in this table

The changes which have occurred in stillbirth rates for broad age and parity groups are shown in Table C117 for each year from 1955 until 1963. There has been a reasonably uniform decrease affecting all births with the exception of one group having small numbers of stillbirths (mothers aged under 25 years with four or more previous liveborn children).

A more detailed analysis of births is available for 1963 than has been produced in the years since 1956 and the opportunity has therefore been taken to compare these two years in detail.

Before 1963 it was customary to include illegitimate births with nulliparous births; for younger mothers, most illegitimate births are probably first births but the presumption is weaker for older mothers. When the birth registered is illegitimate no information is in fact collected of any previous birth, and accordingly the data for parity in 1963 exclude illegitimate births. Figures for 1963 comparable with previous years can be obtained by combining first-born legitimate births with illegitimate births to set against "nulliparous" births of previous years.

From Table C118 it is seen that the lowest stillbirth rate occurs among mothers under the age of twenty years for their second baby (parity 1), and is now less than 10 per thousand total births. During the past seven years the stillbirth rate for this group has fallen from 11.7 to 9.3 but the decrease is proportionally as great at some other ages and parities.

Table C118. Comparison of stillbirths per thousand total births, by age and parity* of mother, 1956 and 1963, England and Wales

Number of previous liveborn children	Year	Age of mother at birth						
		All ages	Under 20	20-24	25-29	30-34	35-39	40 and over
0	1956	25.6	21.7	21.3	25.5	35.4	45.9	51.5
	1963	18.5	15.0	16.1	19.7	26.9	34.5	37.7
1	1956	16.4	11.7	12.7	14.5	18.9	28.3	37.6
	1963	12.6	9.3	9.9	11.3	15.7	23.6	35.9
2	1956	21.2	10.9	15.2	18.8	21.0	29.0	36.5
	1963	16.2	11.9	12.1	13.2	17.5	24.5	33.9
3	1956	24.7	-	18.5	18.7	23.8	30.1	45.8
	1963	19.0	-	14.5	14.3	18.2	25.4	38.3
4	1956	27.8	-	20.0	22.1	22.7	33.5	48.8
	1963	23.4	-	14.8	18.2	20.6	28.5	41.9
5 and over	1956	38.3	-	11.3	25.3	27.9	41.1	60.6
	1963	28.7	-	10.0	20.1	25.5	30.7	40.4
Grouped parities:								
0-4	1963	16.4	13.9	13.6	14.7	19.0	26.4	37.2
5-9	1963	28.0	-	10.0	20.2	25.2	30.1	39.4
10 and over	1963	43.5	-	-	-	41.8	39.8	49.1
Legitimate	1963	17.0	13.9	13.6	14.8	19.6	27.2	38.1
Illegitimate	1963	20.5	18.9	17.0	23.2	21.4	24.0	42.1
All stillbirths	1956	22.9	20.7	18.4	20.0	24.7	34.1	47.8
	1963	17.2	15.0	13.8	15.2	19.7	27.0	38.4

*Illegitimate births are included in parity 0 for 1956 but not for 1963

As shown in Table C119, there is a well-established gradient across the country with higher stillbirth rates in the North and West than in the South and East. When comparing 1963 with previous years note must be taken of the change from standard regions to hospital board regions, the change from a broad to a finer classification of parity and the exclusion of illegitimate births from nulliparous births. Declining stillbirth rates are found in all regions and for mothers of all parities. There is no indication that the gap between the best and the worst region is disappearing.

Table C119. Stillbirths per 1,000 total births, by parity of mother and region

Hospital Region	1963								1960 to 1962				Year	Standard Region
	Number of previous liveborn children								Number of previous liveborn children					
	0*	1	2	3	4	5-9	10 and over	Total	Total	0*	1-3	4 and over		
Newcastle	20	16	19	22	25	27	73	19	22	24	18	35	1960	Northern
									22	22	19	34	1961	
									20	22	17	28	1962	
Leeds	17	13	17	20	24	32	72	17	21	23	17	30	1960	East and West Ridings
									20	23	16	29	1961	
									18	20	16	25	1962	
Manchester	20	14	17	22	32	31	28	19	22	25	19	30	1960	North Western
									21	24	17	31	1961	
									20	22	17	29	1962	
Liverpool	22	13	19	20	29	24	47	20	21	23	17	32	1960	North Midland
									20	22	17	23	1961	
									19	19	17	28	1962	
Sheffield	19	13	17	19	27	32	65	18	21	23	18	29	1960	Midland
									20	22	16	30	1961	
									20	21	16	28	1962	
Birmingham	22	12	18	20	21	26	48	19	18	21	15	26	1960	Eastern
									17	18	15	30	1961	
									16	18	13	22	1962	
East Anglia	18	13	16	22	16	25	-	17	17	18	15	30	1960	London and South Eastern
									16	18	13	22	1961	
									17	19	14	27	1962	
North West Metropolitan	17	11	15	17	18	28	35	15	17	19	14	27	1960	Southern
North East Metropolitan	17	11	17	20	20	29	41	16	17	19	14	25	1961	
South East Metropolitan	19	11	14	19	16	25	22	16	16	19	13	25	1962	
South West Metropolitan	13	10	11	12	23	27	55	13	16	19	13	25	1962	South Western
Oxford	16	12	14	13	18	33	-	15	18	22	15	25	1960	
									16	19	13	24	1961	
Wessex	16	14	16	19	21	19	25	16	15	18	12	27	1962	Wales
									18	21	16	23	1961	
									18	21	14	26	1962	
South Western	18	12	13	18	18	24	37	16	24	26	21	28	1960	Wales
									22	24	20	29	1961	
									22	26	18	28	1962	

*Illegitimate births are included in parity 0 for 1960-1962 but not for 1963.

It will be seen from Diagram 7 that superimposed upon the gradual trend of declining stillbirth rates are irregular fluctuations which have in part a recurring seasonal character. The period studied covers the rise and fall of thalidomide, sales of this drug reaching their peak early in 1962, and an epidemic of rubella in the winter of 1962/63.

The number of stillbirths occurring in each month and attributed to rubella are shown below:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1961	-	-	-	-	-	-	-	-	1	1	-	-
1962	-	2	-	-	1	1	2	1	1	3	10	2
1963	5	2	1	3	1	-	-	-	1	-	-	2

A discussion on seasonal changes in stillbirths will be found in the Commentary Volume for 1961, page 200.

Trends in causes of Stillbirth

The stillbirth rates per thousand total births for the three main groups of conditions showed the following changes during the three years for which figures are available:

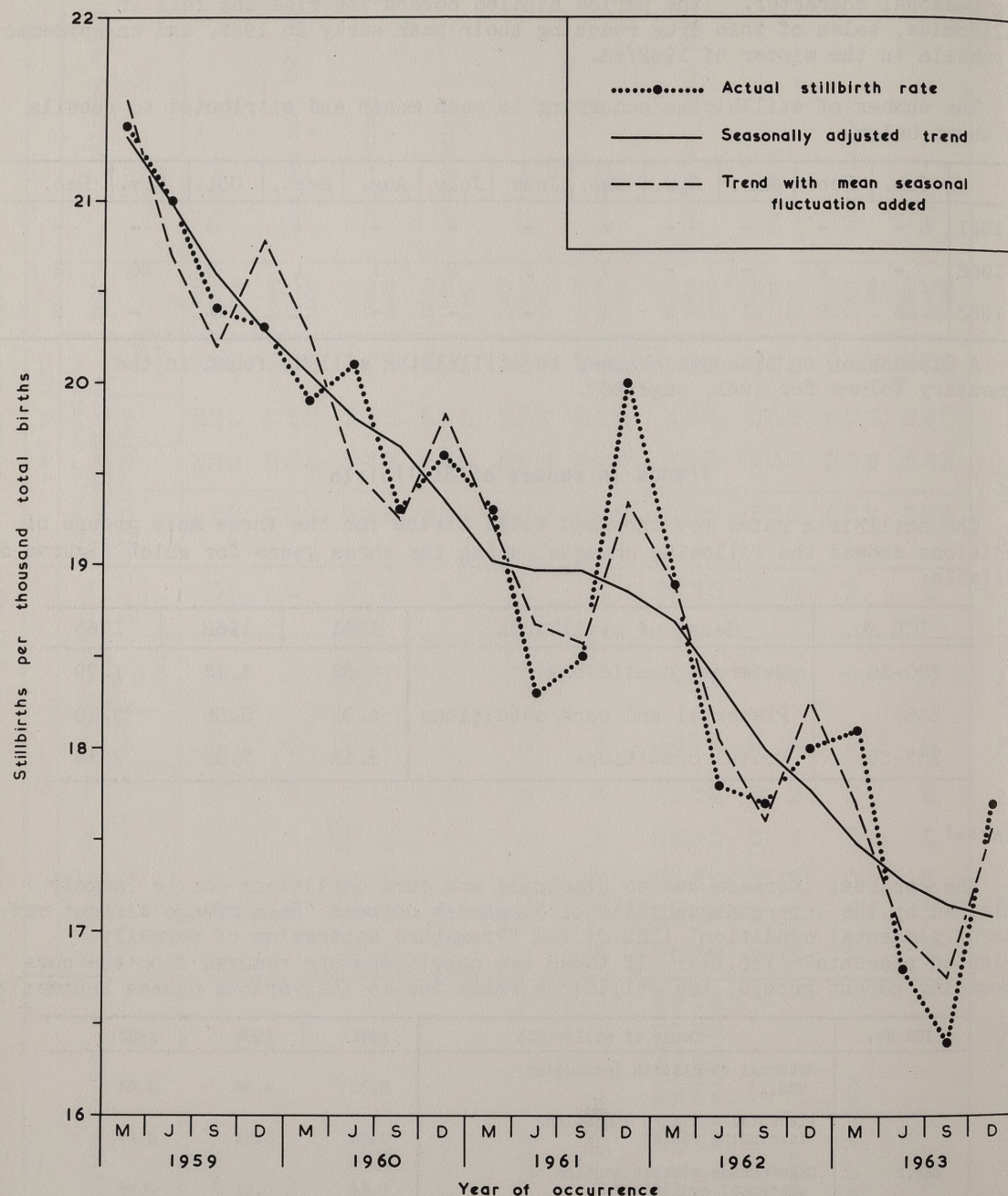
ICD No.	Cause of stillbirth	1961	1962	1963
Y30-35	Maternal conditions	5.63	5.13	4.79
Y36	Placental and cord conditions	4.91	5.05	5.10
Y37-39	Foetal conditions	8.48	7.92	7.36

Maternal

The apparent increase due to placental and cord conditions can be largely explained by the interchangeability of diagnosis between "Haemorrhage without mention of placental condition" (Y32.2) and "Premature separation of normally implanted placenta" (Y36.2). If these two conditions are removed from the corresponding parent groups, the stillbirth rates due to the various causes become:

ICD No.	Cause of stillbirth	1961	1962	1963
	Maternal conditions (excluding Y32.2)	5.00	4.62	4.23
	Placental and cord conditions (excluding Y36.2)	3.56	3.59	3.57
Y32.2	Haemorrhage without mention of placental conditions	0.64	0.51	0.56
Y36.2	Premature separation of normally implanted placenta	1.35	1.46	1.53
Y32.2, Y36.2	All haemorrhage	1.99	1.96	2.09

Diagram 7



Stillbirth rates (actual occurrences), seasonally adjusted trend, and the trend with mean seasonal fluctuation added, 1959 to 1963, England and Wales

Thus re-arranged, the data show no significant change in placental abnormalities as a cause of stillbirth, although the combined total attributed to haemorrhage has increased.

Other categories showing decreases include Y34 - "Difficulties in labour", the rate per thousand total births for the successive years being:

1961	1962	1963
1.55	1.36	1.21

On inspection this decrease is largely due to difficult labour with malposition; it is appropriate to consider together malposition as a cause of "Difficult labour" (Y34.2) and also of "Birth injury" (Y37.3) for which the rates were:

1961	1962	1963
1.01	0.81	0.73

Toxaemia, in the sense of eclampsia and pre-eclampsic toxaemia, can be reconstituted approximately by combining "Eclampsia" (Y32.3) and "Other toxaemias of pregnancy" (Y32.4), the rates being:

1961	1962	1963
2.70	2.54	2.30

"Placenta praevia" (Y36.1) also showed a decline:

1961	1962	1963
0.26	0.20	0.19

Foetal

Decreases were also shown by the total for foetal conditions, and also for "Congenital malformations" (Y38), one of its largest components:

1961	1962	1963
3.72	3.34	3.19

There is some overlapping of diagnostic categories between the principal neurological deformities, accounting for the following rates

ICD No.	Cause of stillbirth	1961	1962	1963
Y38.0	Anencephalus	2.02	1.82	1.78
Y38.1, Y38.20	Hydrocephalus or with mention of hydrocephalus	1.02	0.89	0.79
Y38.2, Y38.00	Spina bifida or with mention of spina bifida	0.71	0.57	0.59

Rates for "Erythroblastosis" (Y39.2) also show a decrease:

1961	1962	1963
0.90	0.79	0.76

Geographical variations. Regional differences in the relative frequency of congenital malformations are known to occur for both stillbirths and infant mortality. In order to assess these differences more accurately, stillbirths for three years (1961-1963) have been tabulated for the standard regions of England and Wales (see Table C120). Combinations of two or more congenital malformations are common. Thus hydrocephalus as the sole cause would be assigned to Y38.1 but in combination with spina bifida it would be coded Y38.20 to "Spina bifida with mention of hydrocephalus". Similarly, spina bifida associated with anencephalus would be coded Y38.0 "Anencephalus with mention of spina bifida or synonym". Regional variations persist whether abnormalities are combined or taken singly. Individual components are shown in Table C120 but combined groups are used for making regional comparisons.

There is a marked similarity between the three major malformations of the central nervous system. The rates are approximately twice as great in regions with the highest rates as in those with the lowest, and for all three malformations - anencephalus, hydrocephalus and spina bifida - highest rates are recorded in Wales and in the North Western Region, and lowest rates in the Eastern Region and in the London and South Eastern Region. This is clearly seen if the combined rates per 1,000 total births are compared:

	Anencephalus	Hydrocephalus	Spina bifida
High rates			
Wales	2.82	1.24	1.04
North Western region	2.45	1.14	0.78
Low rates			
Eastern Region	1.41	0.64	0.45
London and South Eastern Region	1.29	0.63	0.41

In the remaining groups of central nervous system malformation the numbers recorded are smaller. The Eastern Region and the London and South Eastern Region have low rates also in all these groups; the higher rates are twice the lowest but are not found so consistently in the same regions. The regions having the highest and lowest rates were (expressed per 100,000 total births):

	Mongolism	Microcephaly	Other malformations of central nervous system
High rates	South Western 5 Northern 4	North Western 4 Southern 4	Wales 10 North Western 10
Low rates	Wales 2 Eastern 2 London and South Eastern 2	Wales 1 Midland 1 North Midland 1 Eastern 1 London and South Eastern 1	Midland 5 Eastern 5 London and South Eastern 5

Table C120. Stillbirths assigned to congenital malformations, rates per 1,000 total births by standard region, 1961-1963, England and Wales

ICD No.	Cause	Northern	East and West Ridings	North Western	North Midland	Midland	Eastern	London and South Eastern	Southern	South Western	Wales
Y38.0	Anencephalus	2.24	1.95	2.45	2.05	2.06	1.41	1.29	1.59	1.60	2.82
Y38.1	Hydrocephalus	0.80	0.69	0.76	0.70	0.69	0.48	0.45	0.56	0.53	0.75
Y38.20	Spina bifida with mention of hydrocephalus	0.26	0.33	0.38	0.28	0.29	0.16	0.18	0.23	0.30	0.49
	Total hydrocephalus	1.06	1.02	1.14	0.99	0.98	0.64	0.63	0.79	0.83	1.24
Y38.2	Spina bifida	0.40	0.49	0.52	0.40	0.43	0.28	0.27	0.32	0.45	0.70
Y38.00	Anencephalus with mention of spina bifida	0.29	0.28	0.26	0.22	0.29	0.17	0.13	0.17	0.15	0.34
	Total spina bifida	0.69	0.77	0.78	0.62	0.72	0.45	0.41	0.49	0.60	1.04
Y38.30	Mongolism	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.03	0.05	0.02
Y38.31	Microcephaly	0.02	0.02	0.04	0.01	0.01	0.01	0.01	0.04	0.02	0.01
Y38.32	Other malformations of the central nervous system	0.06	0.07	0.10	0.09	0.05	0.05	0.05	0.08	0.08	0.10
Y38.4	Cardiovascular	0.03	0.10	0.08	0.04	0.06	0.12	0.06	0.04	0.10	0.04
Y38.45	Other malformations of the heart	0.03	0.04	0.04	0.02	0.02	0.04	0.02	0.02	0.06	0.03
Y38.5	Malformations of other systems	0.21	0.21	0.21	0.23	0.23	0.23	0.21	0.22	0.28	0.19
Y38.6	Monster	0.02	0.01	0.02	0.01	0.02	0.03	0.03	0.02	0.01	0.01
	Total births (<i>thousands</i>)	185	230	376	206	278	211	580	165	178	140

In order to correct for any differences in age structure between the regions, stillbirths have been adjusted for maternal age in Table C121; the standardised ratios for anencephalus, spina bifida and hydrocephalus are found to resemble each other in their general trend and the findings based on unadjusted rates are confirmed.

Stillbirths due to the remaining congenital malformations of the central nervous system are few in number and have been combined into two groups - those with a standardised ratio above 100 and those below. The differences between the two groups do not reach statistical significance for any of the three groups of malformations.

Table C121. Stillbirths assigned to congenital malformations of the central nervous system, standardised ratios adjusted for age of mother, in the standard regions, 1961-1963, England and Wales

Region	Anencephalus (Y38.0)	Hydrocephalus or with mention of hydrocephalus (Y38.1,Y38.20)	Spina bifida or with men- tion of spina bifida (Y38.2,Y38.00)	Mongolism (Down's syndrome) (Y38.30)	Microcephaly (Y38.31)	Other malformations of the cen- tral nervous system (Y38.32)
Wales	152	139	168	107	108	113
North Western	131	127	125			
Northern	119	117	111			
East and West Ridings	104	114	123			
North Midland	109	109	98			
Midland	110	109	115			
Eastern	76	72	73	91	90	83
London and South Eastern	69	70	65			
Southern	86	89	80			
South Western	86	94	96			
Total number of stillbirths	4,774	2,287	1,590			

Two of the major central nervous system malformations are distinguished by a large excess of female stillbirths, and it is pertinent to enquire whether regional fluctuations affect both sexes equally. In Table C122 the actual number of stillbirths assigned to the selected causes (combined totals) for each sex separately are compared with the expected number if the average proportion of all causes for the whole country had prevailed. Where the difference between actual and expected number exceeds twice the square root of the expected number, an asterisk is used to mark the significant difference.

From the data in Table C122 the ratio of actual/expected number of stillbirths can be calculated, and this ratio is presented below for those areas where the difference has been marked as significant in at least one sex. If the difference between actual and expected numbers in the other sex is less than the square root of the expected number the corresponding ratio is placed in brackets. Any ratio

which is neither marked with an asterisk nor placed in brackets is thus known to be based on a difference of between one to two standard deviations. The ratios of actual to expected stillbirths so selected were:

Region and conurbation	Anencephalus (Y38.0)	Hydrocephalus or with mention of hydrocephalus (Y38.1,Y38.20)	Spina bifida or with mention of spina bifida (Y38.2,Y38.00)
East and West Ridings	{ M F		1.30* 1.15
North Western	{ M F	1.09 1.22**	1.13 1.17* 1.28* (1.05)
South East Lancashire	{ M F		1.13 1.29*
Merseyside	{ M F	1.17 1.29*	
West Midland	{ M F	(0.89) 0.84*	
Eastern	{ M F	(0.93) 0.80*	0.84 0.73* 0.60* (0.91)
London and South Eastern	{ M F	0.80** 0.78**	0.76** 0.84* 0.68** 0.77*
Greater London	{ M F	0.75** 0.73**	0.75* 0.81* 0.63** 0.71**
South Western	{ M F	0.73* (0.95)	
Wales	{ M F	1.37** 1.24**	1.28* (1.07) 1.41* 1.40*

When comparing regions and conurbations, ninety-six ratios have been inspected, using a screening probability of 1/20 for each; it is necessary to use a deviation from expected value that occurs only 1/1,920 times by chance as a realistic test that we are dealing with something more than chance fluctuations. Several ratios pass this test, and are marked with two asterisks. Those that fail to pass this more stringent test are the smaller areas with fewer numbers; this presumably is the reason for failure.

On comparing the ratios in the table above for the two sexes, it is only for spina bifida that any difference between the sexes can be discerned - in all six pairs of ratios quoted that for males is more divergent from unity than the corresponding ratio for females. In itself this is not unduly remarkable, and no similar distinction between the sexes can be elicited from the other conditions considered. It thus seems that regional differences are real, and operate equally upon the two sexes.

A complete analysis of regional differences should take account of any differences in maternal age, parity, or social class of father which are all known to be relevant and inter-correlated factors in the causation of stillbirth. The number of

Table C122. Comparison of assigned and expected stillbirths due to congenital malformations of the central nervous system by sex and standard regions, 1961-1963, England and Wales

Area		All causes		Anencephalus (Y38.0)		Hydrocephalus or with mention of hydrocephalus (Y38.1, Y38.20)		Spina bifida or with mention of spina bifida (Y38.2, Y38.00)	
		Numbers	Rate	Actual	Expected	Actual	Expected	Actual	Expected
England and Wales	{ M	23,917	18.2	1,325		1,181		565	
	{ F	22,263	18.0	3,449		1,106		1,025	
Standard regions and conurbations:									
Northern	{ M	1,910	20.1	112	106	103	94	39	45
	{ F	1,828	20.3	302	283	93	91	89	84
Tyneside	{ M	510	20.6	35	28	33	25	14	12
	{ F	483	20.5	74	75	25	24	22	22
East and West Ridings	{ M	2,246	19.0	115	124	128	111	69*	53
	{ F	2,047	18.3	334	317	106	102	108	94
West Yorkshire	{ M	887	18.5	38	49	50	44	23	21
	{ F	823	18.0	130	127	50	41	49	38
North Western	{ M	3,952	20.4	239	219	220	195	119*	93
	{ F	3,623	19.9	685*	561	210*	180	176	167
South East Lancashire	{ M	1,411	19.6	86	78	79	70	42	33
	{ F	1,310	19.3	219	203	84*	65	71	65
Merseyside	{ M	976	21.2	63	54	57	48	27	23
	{ F	876	20.2	175*	136	42	44	35	40
North Midland	{ M	1,974	18.6	124	109	104	97	46	47
	{ F	1,835	18.3	299	284	99	91	81	84
Midland	{ M	2,729	19.0	173	151	136	135	70	64
	{ F	2,649	19.6	401	410	137	132	130	122
West Midland	{ M	1,380	19.1	68	76	56	68	32	33
	{ F	1,331	19.5	173*	206	59	66	69	61
Eastern	{ M	1,800	16.5	93	100	75	89	26*	43
	{ F	1,647	16.1	205*	255	60*	82	69	76
London and South Eastern	{ M	4,849	16.3	214*	269	181*	239	78*	115
	{ F	4,413	15.6	536*	684	183*	219	157*	203
Greater London	{ M	3,628	16.3	151*	201	134*	179	54*	86
	{ F	3,327	15.7	375*	515	133*	165	109*	153
Southern	{ M	1,303	15.4	73	72	63	64	32	31
	{ F	1,274	15.9	189	197	67	63	49	59
South Western	{ M	1,607	17.5	65*	89	74	79	34	39
	{ F	1,491	17.3	219	231	74	74	72	69
Wales	{ M	1,547	21.4	117*	86	97*	76	52*	37
	{ F	1,456	21.3	279*	226	77	72	94*	67
Urban and rural aggregates:									
Conurbations	{ M	8,792	18.1	441*	487	409	434	192	208
	{ F	8,150	17.7	1,146*	1,263	393	405	355	375
Areas outside conurbations:									
Urban areas with population of 100,000 and over	{ M	3,220	18.6	168	178	139	159	71	76
	{ F	3,034	18.6	472	470	142	151	138	140
Urban areas with population of 50,000 and under 100,000	{ M	2,152	18.6	140*	119	119	106	51	51
	{ F	2,004	18.4	308	310	105	100	112*	92
Urban areas with populations under 50,000	{ M	5,231	19.0	307	290	285	258	139	124
	{ F	4,719	18.2	858*	731	256	234	236	217
Rural districts	{ M	4,522	17.3	269	251	229	223	112	107
	{ F	4,356	17.7	665	675	210	216	184	201

* Indicates where the difference actual/expected is more than twice the square root of the expected number.

stillbirths in a single year is small for many causes and the present analysis has been restricted to outlining the effect of these factors acting independently.

Age and parity of mother. Congenital malformations are well known to have different incidence according to sex of the child and age of the mother, but the degree of expression of these features varies with the type of malformation. At almost all maternal ages female infants are nearly three times as likely to be anencephalic as males, and nearly twice as likely as males to have spina bifida or be microcephalic, or to show other malformations of the nervous system. The exception is mongolism (Down's disease) where there appears to be a change-over with increasing maternal age.

Table C123. Stillbirths assigned to congenital malformations of the central nervous system, rates per 1,000 total births by sex, and age of mother, 1961-1963, England and Wales

ICD No.	Cause		Age of mother						
			All ages	Under 19	20-	25-	30-	35-	40 and over
Y38.0	Anencephalus	{ M	1.01	1.16	1.06	0.89	0.95	1.18	1.12
		{ F	2.78	3.52	2.91	2.51	2.62	2.84	3.12
Y38.1, Y38.20	Hydrocephalus or with mention of hydrocephalus	{ M	0.90	0.83	0.84	0.72	0.99	1.37	1.65
		{ F	0.89	0.86	0.87	0.83	0.89	1.04	1.39
Y38.2, Y38.00	Spina bifida or with mention of spina bifida	{ M	0.43	0.53	0.42	0.38	0.46	0.44	0.56
		{ F	0.83	1.04	0.89	0.75	0.70	0.75	1.31
Y38.30	Mongolism	{ M	0.02	0.03	0.02	0.02	0.01	0.05	0.13
		{ F	0.03	0.01	0.01	0.01	0.02	0.14	0.28
Y38.31	Microcephaly	{ M	0.01	0.01	0.02	0.01	0.01	0.01	0.03
		{ F	0.03	0.02	0.03	0.02	0.04	0.04	-
Y38.32	Other congenital malformations of the central nervous system	{ M	0.05	0.03	0.06	0.04	0.06	0.05	-
		{ F	0.09	0.05	0.11	0.08	0.11	0.09	0.08
Total births (thousands)			2,550	202	790	780	469	235	74

Maternal age is known to be more important than parity in Down's disease, but has an uncertain effect on other conditions: mothers between the age of 20 and 30 may run slightly lower risks of these malformations than the younger or older mothers.

Table C124. Stillbirths assigned to congenital malformations of the central nervous system, rates per 1,000 total legitimate births by parity of mother, 1961-1963, England and Wales

ICD No.	Cause	Number of previous children (live and still born)								
		Total	0	1	2	3	4	5	6-7	8 and over
Y38.0	Anencephalus	1.879	2.28	1.48	1.56	1.94	1.82	2.57	2.29	2.54
Y38.1, Y38.20	Hydrocephalus or with mention of hydrocephalus	0.888	0.96	0.73	0.79	0.91	1.17	1.41	1.56	1.24
Y38.2 Y38.00	Spina bifida or with mention of spina bifida	0.628	0.78	0.50	0.49	0.59	0.66	0.69	0.85	0.98
Y38.30	Mongolism	0.029	0.019	0.014	0.035	0.046	0.041	0.077	0.21	0.10
Y38.31	Microcephaly	0.019	0.023	0.018	0.015	0.015	0.031	-	-	-
Y38.32	Other congenital malformation of the central nervous system	0.068	0.073	0.053	0.073	0.11	0.071	0.077	0.023	-
Total legitimate births (thousands)		2,384	853	722	399	197	98	52	44	19

Information about parity is available only for legitimate births. The changes in frequency of malformations of the central nervous system according to parity run parallel with those shown by age of mother, as might be expected.

Down's disease (mongolism) is the only condition showing a progressive increase in frequency with increasing parity of mother: and all the conditions, including Down's disease, have the lowest rates for mothers who had one previous live or still born child.

Social class

From the occupation recorded of fathers of legitimate stillborn children in 1961 the number of stillbirths has been tabulated by social class for nine ICD categories (Table C125) and for some of the more important groups of causes (Table C126).

Each entry in these tables has been compared with an expected number calculated by multiplying the total number of stillbirths in that social class by the proportion which the total for that category bears to the total number of stillbirths. Deducing this expected number from the actual number observed gives the deviation, shown, in italics, with a plus (for excess) or minus sign (for deficit). Thus for the first entry in Table C125 the expected number is

$$1,577 \times \frac{417}{14,526} = 45$$

and the deviation is accordingly $53 - 45 = +8$.

Congenital malformations in social class I and II have a deviation below the expected value (-37) twice as great as the square root of the expected number (312).

From Table C126 it is seen that this deficit is accounted for by the deficit in stillbirths due to anencephalus (-48, or more than three times the standard error); and bearing in mind that the total stillbirth rate from all causes is only 83 per cent* of that for the community as a whole, it seems that this is a real deficit. It is not, however, accompanied by a progressive rise throughout the social class scale.

"Difficult labour" (Y34) is more prominent as a cause of stillbirth in social classes IV and V (see Table C125) but the group which has been isolated in Table C126 of difficult labour without disproportion or abnormality of bones of pelvis does not contribute to this anomaly. Otherwise there is no indication of heterogeneity in the two tables.

Table C125. Number of legitimate stillbirths by ICD categories and social class with deviations from the expected number (see text), 1961, England and Wales

ICD No.	Cause	Total	Social class					Not known
			I and II	III	IV	V		
Maternal conditions								
Y30	Chronic disease in mother	417	53 +8	213 -16	70 -9	63 +15	18 +1	
Y31	Acute disease in mother	63	8 +1	38 +3	12 0	4 -3	1 -2	
Y32	Diseases and conditions of pregnancy and childbirth	2,604	282 -1	1,440 +13	480 -11	289 -9	113 +7	
Y34	Difficulties in labour	1,167	119 -8	605 -34	249 +29	157 +24	37 -9	
Y35	Other causes in mother	46	6 +1	23 -2	11 +2	4 -1	2 0	
Placental and cord conditions								
Y36	Placental and cord conditions	3,787	399 -12	2,090 +15	708 -6	428 -3	162 +8	
Conditions in infant								
Y37	Birth injury	383	59 +17	204 -6	63 -9	48 +4	9 -7	
Y38	Congenital malformations	2,877	275 -37	1,618 +41	557 +15	302 -27	125 +7	
Y39	Other diseases and ill-defined causes	3,181	376 +31	1,728 -15	587 -12	365 +1	125 -5	
Y30-Y39	All legitimate stillbirths	14,526	1,577	7,960	2,737	1,660	592	

*Decennial Supplement 1951, Occupational Mortality, Pt. II, Vol. 2, Tables

Table C126. Number of legitimate stillbirths by selected causes and social class with deviations from the expected number (see text), 1961, England and Wales

ICD No.	Cause	Total	Social class				
			I and II	III	IV	V	Not known
Y32.2	Haemorrhage without mention of placental condition	490	56 +3	268 -1	80 -12	55 -1	31 +11
Y36.2	Premature separation of normally implanted placenta	1,046	102 -12	578 +5	199 +2	116 -4	51 +8
Y32.3, Y32.4	Toxaemias of pregnancy including eclampsia	2,069	220 -5	1,149 +15	391 +1	230 -6	79 -5
Y34.0, Y34.1	Difficult labour without disproportion or abnormality of bones of pelvis	266	35 +6	150 +4	43 -7	32 +2	6 -5
Y38.0	Anencephalus	1,573	123 -48	904 +42	302 +6	171 -9	73 +9
Y38.1, Y38.20	Hydrocephalus and Spina bifida with mention of hydrocephalus	781	83 -2	425 -3	155 +8	91 +2	27 -5
Y38.2, Y38.00	Spina bifida and Anencephalus with mention of spina bifida	550	54 -6	306 +5	102 -2	60 -3	28 +6
Y38.4	Malformation of cardiovascular system	48	8 +3	21 -5	12 +3	3 -2	4 +2
Y38.5	Malformation of other specified system or part	186	27 +7	99 -3	42 +7	12 -9	6 -2

DEATHS FROM ACCIDENT AND VIOLENCE

For the past six years deaths from accident and violence have increased steadily in number and, after allowing for growth of population and changes in population structure that might account in part for this increase, the Standardised Mortality Ratio is 6 per cent above the level for 1950-1952 for males and 27 per cent above the base level for females.

The major causes responsible for these deaths have been reviewed in this Commentary on 1962 and earlier years. They include topics such as motor transport accidents, suicide, poisoning, falls and other home accidents.

The wide variety of accidents includes others which may not be of outstanding numerical importance, but which have attracted attention from time to time. A few of these smaller groups of accidents are discussed in the following sections.

Accidental mechanical suffocation (ICD Nos. E924, E925)

Accidental suffocation not due to ingestion of food or other objects is classified as mechanical suffocation under two headings:

- E924 "in bed and cradle", and
- E925 "in other or unspecified circumstances".

The distinction may seem rather obvious, since infants who spend most of their time in bed or cradle from the bulk of category E924, and older persons are more liable to be classified in E925. The numbers recorded during the past five years under the age of twelve months, and over that age, are shown below for these two categories:

Year	E924, E925	E924		E925		
		"in bed and cradle"				
		All ages	Under 1 year	1 year and over	Under 1 year	1 year and over
1959	M	131	77	5	5	44
	F	66	54	5	4	3
1960	M	128	74	2	3	49
	F	60	53	2	4	1
1961	M	134	68	3	3	60
	F	61	45	6	2	8
1962	M	158	87	7	9	55
	F	86	57	15	7	7
1963	M	180	86	8	7	79
	F	73	48	6	4	15
Total	M	731	392	25	27	287
	F	346	257	34	21	34

In both groups there is a moderate excess of males compared with females among infants under one year of age; but at older ages there is a striking contrast between the two sexes with a large excess of males in category E925. Death rates per million population based on registrations during the five years are:

	All ages	0-	1-	5-	15-	45-	65 and over
E924 M	3.7	161	1.7	0.1	0.2	0.0	0.2
F	2.4	111	2.0	-	0.3	0.1	0.3
E925 M	2.8	11	4.4	1.2	3.4	2.5	0.4
F	0.5	9	2.3	0.2	0.2	0.2	0.2

The greatest interest is focused on deaths in infants under the age of twelve months as at this age there are often conjectures that an unsuspected infection may account for the sudden death. Additional information obtained at the time of the inquest has therefore been analysed in order to present fuller information about the mechanism of these deaths.

Mechanical suffocation not due to food or other inhaled object

It is convenient to discuss the modes of suffocation according to the age of the subject, and to study adult males and females separately, in view of the industrial hazards affecting males only.

Children under the age of one year. The place in which the deaths from accidental suffocation in 1963 took place was reported as:

	Males	Females
E924 Bed, cot, cradle	86	48
cot	32	11
carry-cot	9	4
perambulator	10	6
in bed	8	6
in mother's bed	11	10
not otherwise specified	16	11
E925 Elsewhere	7	4

Most of the deaths assigned to E924 for which details are available may be classified under headings common to all the types of sleeping-place above. The most frequently occurring are:

- some object covering the face, or
- the child turning on to its face or against the side of its sleeping-place.

(a) The object causing suffocation by superposition on the child is usually some form of bedding, but this series also included a cat, infant sisters and persons, possibly the child's mother. The articles of bedding mentioned were a blanket, eiderdowns (2 deaths), pram covers (2 deaths) and a duffle coat. There were single instances of bed-clothing being too tight, and of a pillow falling over the face.

(b) When the child turns, it may suffocate face downwards on the pillow or on the mattress, or its face may be pressed against the side of its sleeping-place.

A few older children get too far down inside the bedding, but more accidents result from the pram or carry-cot being upset, and one resulted from a child slipping out of its cot in the bed-clothes. In two instances, infants old enough to stand up in their cot were strangled by a sleeve from a woollen coat and a string falling round the neck from a toy.

Deaths of fifteen infants born illegitimately were recorded (in cot 4, in mother's bed 4, elsewhere 7). The accidents in these cases include suffocation by the breast or a pliable object, one shortly after birth and three others within the first month of life. To this group could be added a newborn infant abandoned in a public convenience.

Inhalation of gastric contents was noted twice, but no other illnesses were recorded in these infants.

Children aged 1-4 years. About one fifth of the accidents occurred with bedding, with mention of illness in one case (meningitis). Six incidents occurred in cots, one in a pram.

Strangulation is more frequent as the child becomes more mobile (11 deaths). Five occurred in cots, one in a pram, and five while playing or getting into mischief elsewhere.

Plastic bags (4 deaths) are first mentioned at the age of 19 months; in one other incident the face was covered by sacks causing suffocation.

Older children. Seven accidents were recorded in the age-group 5-14 years, only one being by bedding; the others resemble adult type accidents more closely. One death was attributed to a plastic bag, in conjunction with a nylon stocking: the age at which these incidents with plastic bags occur most frequently is between 15-24.

Adult males. Occupational hazards are predominant in this group, the most hazardous occupation being coal-mining with 24 deaths, half of which occurred in the South Wales coalfield. Although mechanization has been introduced into coal-cutting and transport below ground, human intervention on the spot is still required for roof propping, packing stone and repairing roadways.

Other occupational risks are found in trench digging (e.g. for laying water mains and other purposes) with collapse of the walls. Many, but not all, of these

Table C127(A). Deaths from accidental mechanical suffocation (ICD Nos. E924, E925), 1963, England and Wales

Children under 1 year										
Mode of death		Under 1 year	Months							6-11
			0	1	2	3	4	5		
In bed with mother	{M	11	3	4	2	2	-	-	-	
	{F	10	-	2	2	3	2	1	-	
Face down in pillow, slipped down in bed with bedclothes over, and want of attention after feed	{M	2	1	-	-	1	-	-	-	
	{F	1	-	-	-	-	-	1	-	
Overlain	{M	3	1	-	1	1	-	-	-	
	{F	6	-	1	1	2	2	-	-	
In bed with parents (not elsewhere classified)	{M	2	-	1	1	-	-	-	-	
	{F	1	-	-	-	1	-	-	-	
In bed with mother (not otherwise specified)	{M	4	1	3	-	-	-	-	-	
	{F	2	-	1	1	-	-	-	-	
In carry-cot	{M	9	-	2	3	1	2	-	1	
	{F	4	-	1	-	1	1	-	1	
Duffle coat over face	{M	-	-	-	-	-	-	-	-	
	{F	1	-	-	-	-	-	-	1	
Face down: in pillow	{M	3	-	1	1	-	1	-	-	
	{F	-	-	-	-	-	-	-	-	
in mattress cover or bedding	{M	2	-	-	2	-	-	-	-	
	{F	1	-	1	-	-	-	-	-	
Cot tipped, upset, collapsed or child fell out	{M	3	-	1	-	1	1	-	-	
	{F	2	-	-	-	1	1	-	-	
Unspecified	{M	1	-	-	-	-	-	-	1	
	{F	-	-	-	-	-	-	-	-	
In perambulator	{M	10	-	3	2	3	1	1	-	
	{F	6	-	-	-	1	2	-	3	
External object (cat or other child) on face or chest	{M	2	-	1	1	-	-	-	-	
	{F	-	-	-	-	-	-	-	-	
Pram cover, sheets	{M	1	-	1	-	-	-	-	-	
	{F	1	-	-	-	-	1	-	-	
Face down in mattress (including plastic covered)	{M	2	-	-	-	2	-	-	-	
	{F	-	-	-	-	-	-	-	-	
Blanket covering face	{M	1	-	-	-	-	1	-	-	
	{F	-	-	-	-	-	-	-	-	
Pram tipped	{M	-	-	-	-	-	-	-	-	
	{F	1	-	-	-	-	-	-	1	
Unspecified	{M	4	-	1	1	1	-	1	-	
	{F	4	-	-	-	1	1	-	2	
Total	{M	30	3	9	7	6	3	1	1	
	{F	20	-	3	2	5	5	1	4	

Table C127(A) - continued Children aged 1-4 years

Mode of death		Age in years				
		1-4	1	2	3	4
In bed and cot	{M	6	3	3	-	-
	{F	3	3	-	-	-
by bedding over face	{M	2	1	1	-	-
	{F	-	-	-	-	-
face down	{M	2	-	2	-	-
	{F	-	-	-	-	-
strangulation: cardigan, nightdress, and harness	{M	2	2	-	-	-
	{F	3	3	-	-	-
In perambulator	{M	-	-	-	-	-
	{F	2	1	1	-	-
plastic pram cover	{M	-	-	-	-	-
	{F	1	1	-	-	-
strangulation (harness)	{M	-	-	-	-	-
	{F	1	-	1	-	-
Elsewhere	{M	8	3	2	2	1
	{F	2	1	1	-	-
face covered with sack and plastic bag	{M	4	1	-	2	1
	{F	1	1	-	-	-
strangulation: cord, headboard, and iron gate	{M	4	2	2	-	-
	{F	1	-	1	-	-
Total	{M	14	6	5	2	1
	{F	7	5	2	-	-

Children aged 5-14 years

Mode of death		Age in years					
		5-14	5-	7-	9-	11-	13-14
Face down in mattress	{M	1	-	-	-	-	1
	{F	-	-	-	-	-	-
Face covered with nylon stocking and plastic bag	{M	1	-	-	-	-	1
	{F	-	-	-	-	-	-
Strangulation: scarf	{M	-	-	-	-	-	-
	{F	1	-	-	1	-	-
Buried by sand, wheat	{M	1	-	-	-	1	-
	{F	1	-	-	-	-	1
Trapped by tool chest	{M	-	-	-	-	-	-
	{F	1	-	-	1	-	-
Unspecified	{M	-	-	-	-	-	-
	{F	1	-	-	1	-	-
Total	{M	3	-	-	-	1	2
	{F	4	-	-	3	-	1

incidents occurred in the south and east of England; population density or geological formations may account for their distribution.

A small but characteristic hazard is presented by the bulk handling of materials such as sand, limestone dust, coal in industrial stores, potatoes or grain. There is danger both of falling material and discharge of material from hoppers, and also of falling into the hopper.

Table C127(B). Deaths from accidental mechanical suffocation
(ICD Nos. E924, E925), 1963, England and Wales

Adult males

Mode of death	Total	Age					
		15-	25-	35-	45-	55-	65 and over
Fall of stone or coal in coal-mine	24	4	7	7	5	1	-
at coal face (hewer, ripper, coal-cutting machine)	10	3	3	4	-	-	-
other underground workers (packer, repairer, propping, road-worker)	7	1	3	1	2	-	-
other specified (deputy, overman, conveyor-mover)	6	-	1	2	2	1	-
unspecified worker	1	-	-	-	1	-	-
Other fall of earth, stone, rubble	20	3	5	7	2	3	-
in trench, at work	6	-	3	2	-	1	-
fall of coal (industrial)	2	-	1	1	-	-	-
by hopper:							
sand, stone, quarry plant	3	-	1	-	1	1	-
limestone dust	2	-	-	1	-	1	-
refuse, brickworks	2	1	-	-	1	-	-
others: potato-pit (1)	5	2	-	3	-	-	-
Buried in snow	5	1	4	-	-	-	-
Strangulation: (cord and pillow (1); fall, tight collar (1); iron hoe, in blocked lime-kiln conveyor tunnel (1))	3	1	-	-	-	1	1
Plastic bag (one with barbiturate)	7	4	-	1	-	1	1
Lack of oxygen (cellophane processing)	1	-	-	-	1	-	-
Heavy machinery on chest	1	-	-	1	-	-	-
Immersion in polystyrene moulds	1	1	-	-	-	-	-
By pillow or settee (one with alcohol)	3	1	-	1	-	-	1
Not otherwise specified (one with epileptiform convulsion)	4	1	-	-	2	1	-
Total	69	16	16	17	10	7	3

Adult females

By pillow (two with epileptiform convulsion)	2	-	1	1	-	-	-
By fall: against couch, with alcohol (1) mechanical walking frame (1)	2	-	-	-	-	1	1
Plastic bag	1	-	-	-	-	1	-
Not otherwise specified (one with epileptiform convulsion, one with alcohol)	5	2	2	-	-	1	-
Unspecified	1	-	-	-	-	-	1
Total	11	2	3	1	-	3	2

Adult females. Only eleven deaths were recorded, compared with 69 of males, but predisposing factors were noted in five (epileptiform convulsion 3, alcohol 2).

Death involving synthetic materials. The danger of plastic materials has received considerable public attention, but the number of deaths in which it is involved shows little sign of decreasing. The material specified most often is polythene. In 1963 plastic material was concerned in accidental deaths of children from a plastic-covered pram cover, pillows, cot mattresses, pram mattresses and cot linings. There were two accidental suffocations during the manufacture of plastics - one from "lack of oxygen" and the other from falling into polystyrene moulds.

Other objects made from modern synthetic materials have also been mentioned in accidental deaths from suffocation. The incidents involved a nylon eiderdown used as a cot cover, and a nylon stocking (in conjunction with a plastic bag), but the evidence against them is more conjectural.

Plastics have also been used for suicidal purposes, and some of the incidents recorded as accidents might belong to either group. They are also recorded in combination with other lethal agents such as carbon-monoxide or barbiturates.

Death by suffocation involving plastic material is continually under review by the Standing Interdepartmental Committee on Accidents in the Home. Prevention of other forms of suffocation in infants depends more upon realization by individuals of potentially hazardous situations. Apart from the practice of taking young infants into the parent's bed with the danger of overlaying, or the use of insecure carry-cots, no type of situation stands out as being particularly numerically important. The Royal Society for the Prevention of Accidents (RoSPA) draws attention to these risks in its "Protect your Child" campaigns. In a considerable proportion of cases no abnormal circumstances are found to explain these deaths.

Accidental death in places of recreation and sport

Although these deaths are relatively uncommon they are the more tragic because of the circumstances and their occurrence at an age when the general mortality is at its lowest. The death rate per million population living for the five years 1959-1963 was:

	All ages	0-	5-	15-	45-	65 and over
Males	2.67	2.4	5.3	2.9	0.9	2.3
Females	0.56	0.9	1.5	0.2	0.2	1.2

In general there has been a reduction in the numbers of these deaths most marked at ages between 15 and 44. These are the ages when deaths are most likely to occur in the pursuit of recreation and sport. At younger ages, and among older people, death in these places is less likely to be connected with recreation or sport, and they have not shown so clear a decline.

Table C128. Deaths from accident occurring in places of recreation and sport, 1959 to 1963, England and Wales

Year	All ages	0-	5-	15-	45-	65 and over
1959 {M	80	3	22	41	6	8
{F	19	2	9	2	-	6
1960 {M	57	3	21	23	5	5
{F	11	-	4	2	1	4
1961 {M	65	7	22	28	2	6
{F	16	5	6	1	-	4
1962 {M	47	6	12	21	6	2
{F	11	-	6	-	4	1
1963 {M	50	4	16	22	5	3
{F	10	1	1	2	-	6
Total {M	299	23	93	135	24	24
{F	67	8	26	7	5	21

The chief forms of this class of accident among deaths registered during 1963 were:

ICD No.	Cause of death	All ages	0-	5-	15-	45-	65 and over
E900-E902	Falls from one level to another {M	9	-	6	2	-	1
	{F	2	1	-	-	-	1
E903-E904	Falls on same level or unspecified falls {M	5	-	-	2	1	2
	{F	4	-	-	-	-	4
E910	Blow by falling object {M	5	-	2	3	-	-
	{F	-	-	-	-	-	-
E912	Caused by machinery {M	3	1	1	-	1	-
	{F	1	-	-	1	-	-
E929	Drowning and submersion {M	14	2	6	5	1	-
	{F	1	-	1	-	-	-
	Other accidents {M	14	1	1	10	2	-
	{F	2	-	-	1	-	1

Falls (E900-E904)

The sex and age distribution of these fatal falls were:

	0-	5-	15-	25-	35-	45-	55-	65-	75-	85 and over
Males	-	6	3	1	-	-	1	1	1	1
Females	1	-	-	-	-	-	-	1	3	1

The extremes of age are affected, the youngest being a girl of 4, and the oldest a woman of 101.

The activities of children leading to the accident were:

	Males	Females
fell off slide	1	1
fell from diving board	1	-
fell from ornamental fountain, holiday camp	1	-
fell off a wall	1	-
fell off a gate on a cricket ground	1	-
n.o.s.	1	-

Deaths of males (15-64 years) were recorded as:

striking head on bottom of bathing pool when diving;
collapsed during game of rugby football (blow on head);
fall on level.

The falls of persons 65 years of age and over were presumably of the same nature as falls which occur to them in other circumstances; they just happened to be in a park, playing fields, or on holiday at the seaside or in a holiday camp. In no case was any foolhardy conduct attributed to them by the coroner.

Accidental death from drowning

Only a small proportion of deaths from drowning occur in places which are classifiable by the *International Statistical Classification of Causes of Death* as places of recreation or sport. Deaths so classified during 1963 include the following incidents:

	All ages	1-	10-	20-	30-	40 and over
In a swimming pool and public baths {M	9	-	7	1	-	1
{F	1	-	1	-	-	-
Sportsfield and caravan site {M	4	2	-	2	-	-
{F	2	-	-	2	-	-
Unspecified {M	2	-	1	1	-	-
{F	-	-	-	-	-	-

It should be noted that deaths by drowning in the sea, or at the seaside, are not classifiable here unless reported as "seaside resort". Bathing in inland sources of water, such as streams or ponds, are likewise unidentifiable unless they should be ponds in quarries or industrial premises. Shallow garden ponds which are occasionally the site of drowning are also not picked out specifically unless they are in public parks or recreation grounds.

Other injuries

Exposure to cold (E932). One death of a female aged 75 occurring in November and associated with diabetes was ascribed to this category. Another death ascribed to barbiturate poisoning (E971) as the underlying cause was of a male aged 30 found dead in Hyde Park, London in the cold winter of January 1963.

Other and unspecified (E936). Three accidental deaths resulted from playing football. Following a collision between goal-keeper and centre-half a boy of 16 developed cerebral contusion and intracranial haemorrhage. After a fracture of the tibia in a man of 20, femoral vein thrombosis was followed by pulmonary embolism and death. In a third death of a man aged 40 who was seen to collapse while playing football, death was due to contusion of the brain and increased intracranial pressure with compression of the medulla.

Rugby football claimed one victim, who died from dislocated cervical spine and contusion of the spinal cord.

Gymnastics accounted for two deaths. In one instance the deceased had vaulted over a "box" and landed on his head, sustaining fracture-dislocation of the spine. The other instance was a school-teacher; the horizontal beam on which she was exercising dropped suddenly, causing traumatic pancreatitis with terminal pulmonary embolism.

Accidental death by fall of window-cleaners

There has been recurring interest in this hazardous occupation in the past, which data published routinely have not proved adequate to satisfy. This is due not so much to the limited number of persons employed in this occupation or the restricted cause of death, but rather to the deaths' not fitting into the usual classification. For example, of 98 deaths of male window-cleaners from accidents in 1949-53, 42 were assigned to "home accidents". This is ten times as many as might be expected for the general population, (see the Registrar General's Decennial Supplement for 1951, Occupational Mortality, Part II, Vol. 2). It seems likely that many deaths at work were being treated as home accidents. It is only by identifying these deaths during the coding process that detailed information from the death reports is obtained. This has been done periodically and the information from a restricted sample for 1963 is compared below with that for 1951.

All persons concerned in accidents while cleaning windows were males, their ages being:

	All ages	15-	25-	35-	45-	55-	65-	75 and over
1951	18	1	3	3	4	4	2	1
1963	19	4	4	1	2	7	1	-

The most recent series suggests two peak age-periods, one in young and the other in ageing men. Six persons were described as master window-cleaners (four in 1951 aged 35, 36, 63, 69, and two in 1963 aged 49, 60).

The International Classification of Causes of Death permits these falls to be assigned to five possible categories, and the numbers so assigned were:

	1951	1963
E900 Fall on stairs	-	-
E901 Fall from ladder	11	3
E902 Fall from one level to another	7	16
E903 Fall on same level	-	-
E904 Unspecified falls	-	-

The place where the fall occurred during window-cleaning can be assigned to one of ten alternatives. These are identified in the International Classification by the fourth (or decimal) digit:

	1951	1963
.0 Home	5	5
.1 Farm	-	-
.2 Mine and quarry	-	-
.3 Industrial place or premises	1	3
.4 Place for recreation and sport	-	-
.5 Street and highway	2	1
.6 Public building	1	7
.7 Residential institution	-	-
.8 Other specified places	1	3
.9 Place not specified	8	-

There is ample scope for divergences in coding practice according to the wording used on the death reports. There is obviously no essential difference between a fall coded to the house (.0) or public building (.6) from which the fall started, or the public highway (.5) where it terminated.

It is possible to amplify this picture of how and where the accident happened by other remarks made in the reports. The public buildings specifically mentioned in 1963 were hotel (2 deaths) and public house (1 death). In 1963 one fall was through a roof and in 1951 one fall was from an overhead crane gantry.

Other contributory causes of death were persecution complex (age 57) in the 1963 series, and coronary occlusion (age 69) in the 1951 series.

The months in which the deaths occurred were:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1951	-	3	5	-	-	2	-	2	1	-	4	1
1963	1	1	3	3	2	1	2	2	-	-	2	2

In two instances in 1951 mention was made of a ladder having slipped - February (1), March (1) - in one case through being on an icy surface.

Although full details for 1951 were not abstracted, it can be noted that two deaths of window-cleaners in February occupied consecutive positions in the death register of one district and four consecutive death entries in November were of window-cleaners, suggesting accidents involving more than one person.

Accidental death caused by firearm (including explosives) (E919)

Deaths from this cause are less frequent than in some other countries for which rates can be quoted:

	Rate per million population
England and Wales (1959-1963)	1.7
Germany (1959-1962)	1.9
Italy (1961)	3.4
United States (1961)	12

There may be some interchange between deaths assigned to accident, and those due to homicide (England and Wales 0.5 per million) or suicide (4.2 per million).

The highest death rate occurs among young males aged 15-19 years and amounts to about 10 per million population at that age. The risk is equal for both sexes below the age of five years, but is approximately ten times greater for males between the ages of 15 and 24 years, and seventy times as great for all ages over 25 years:

1959-1963				
Age	Deaths		Rate per million population	
	Males	Females	Males	Females
All ages	358	28	3.20	0.23
0-	2	3	0.2	0.3
5-	13	4	1.5	0.5
10-	39	8	4.3	0.9
15-	79	6	9.5	0.7
20-	34	4	4.7	0.5
25-	78	-	2.6	-
45-	89	2	3.2	0.1
65 and over	24	1	2.3	0.1

The lethal agent causing the injury in 1963 was recorded as:

	Deaths
shotgun	14
rifle (bullet)	4
pistol	2
humane killer	1
gun-shot or firearm n.o.s.	47

One death occurred in an attempt by a farm worker to dismantle a cannon shell. Eight deaths were due to explosives.

Death from firearms is an occupational hazard for persons who use weapons in daily life. This is usually some form of agricultural activity. The occupations mentioned among males age 15 years and over and not specified as retired were:

farmers and farmer's son (one)	10
farm or agricultural workers	3
gardener (market) or seedsman	3
poultry-farm mechanic or fell-monger	2

Two deaths were of persons still working with the armed forces; two others were retired army officers.

Six of the explosive deaths were incurred in the legitimate pursuit of normal occupation involving explosives. A mill worker was killed in an explosives' factory, and one explosives' carrier was killed in a magazine explosion. Four coal miners (including one deputy) were killed as the result of shot-firing, three deaths occurring in one incident.

In the incidents causing death from gun-shot, the injury was reported as self-inflicted in seven instances, and inflicted by another person in three instances; in the remainder the circumstances were not reported. The activity upon which the deceased had been engaged, and which presumably precipitated the accident was reported as:

two deaths each:	shooting birds
	boys playing together
one death each:	playing with firearm
	using humane killer to destroy a stallion
	climbing a fence
	assisting another across a stream
	standing on a tractor
	standing on sea wall
	pointed gun at throat, thinking it would not go off at half-cock.

Out of eight deaths of females, four were daughters or wives of persons engaged in agricultural occupations.

The nature of the injuries caused by gun-shot wounds can be classified as affecting:

head, face, skull or brain	30
neck, shoulder, and cervical spine	4
chest (including heart 2, lung 1, both sites 2)	13
abdomen (including chest as well 5)	14
spinal cord	2
multiple or unspecified	5

Death may be instantaneous, or reported as internal haemorrhage; in one case inhalation of blood from injuries in the face proved fatal. Delayed death was due in one instance to peritonitis, and in another to hypostatic pneumonia.

The explosives caused multiple injuries (2 deaths), blast injury of lung (1 death), and haemorrhagic oedema of lung with extensive burns and multiple injuries (1 death).

One shot-firing mishap in a coalmine caused fracture of the skull and brain injury: the other incident killed three men from blast injury and carbon monoxide poisoning. Death in the bursting shell accident was due to shrapnel injuring the common carotid and subclavian arteries.

The numbers of deaths assigned to this category during the past twelve years have been:

1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
107	92	87	71	77	81	83	81	65	83	80	77

The average number is 82, with variance 111: the annual decrease in numbers has been 1.7 annually with standard error 0.88 and may be worthy of attention. The decline may be related to changes in the number of birds or other animals.

Some of these incidents were obviously the result of foolishness or lack of due care, or from allowing children to have access to lethal weapons. The need is apparent for instruction in elementary precautions when carrying or handling firearms. These deaths and also non-lethal injuries by firearm are the target of the "Protect your Sight" campaign undertaken by the Royal Society for the Prevention of Accidents.

Death from lightning (E935)

This is a rare mode of death which needs accumulation of data over many years to obtain a satisfactory conspectus. The numbers of deaths registered in each year of the present century have been:

	1	2	3	4	5	6	7	8	9	10
1901-10	16	8	22	8	12	8	12	10	8	20
1911-20	23	20	11	31	21	12	20	13	5	11
1921-30	3	5	8	15	17	11	5	4	14	10
1931-40	12	8	15	11	14	19	-	10	24	10
1941-50	7	3	7	10	7	15	7	11	12	13
1951-60	5	11	14	8	15	9	7	11	7	9
1961-	7	5	2							

The average number of deaths registered annually was 11.2 but the fluctuations from year to year were enhanced by incidents in which more than one person was killed. The worst incident during the period occurred in June 1914 when six persons were killed under one tree on Wandsworth Common, and three others in the vicinity.

Deaths of males exceeded those of females by more than six to one, but there was a slight but significant increase in the relative proportion of females over the years, which may reflect their greater participation in out-door activities:

	Males	Females	F/M ratio
1904-1923	232	29	0.12
1924-1943	194	22	0.11
1944-1963	149	36	0.24

The greatest number of deaths of females in any one year (seven) was recorded in 1914.

The deaths during the past ten years have shown a tendency to be in the younger age-groups for males, but not so for females:

	All ages	0-	10-	20-	30-	40-	50-	60-	70 and over
Males	62	-	19	16	9	4	7	7	-
Females	18	-	2	5	5	2	2	1	1

Summer is the time when most thunderstorms occur and more people are exposed to risk out of doors. Data based on eight years between 1949 and 1963 give the number of deaths in individual summer months as:

April	May	June	July	August
2	13	11	36	14

with single deaths in each of September and December.

These correspond with available data on storms sufficiently destructive to be mentioned in daily newspapers (Brooks, C. E. P. "The English Climate" 1954) and with data recorded in the *Monthly Weather Report* of the Meteorological Office. The

number of days each month in which thunder was heard by at least two recording stations was used as a guide to the number of storms:

	May	June	July	August	September	October
Newspaper records of storms	4	3	12	5	2	1
Thunder heard -						
Average 1914-16 and 1961-63		5.0	6.2	5.3	3.7	
Widespread thunderstorms (1962-63)		2.5	3.5	2.5	2.5	

For both storms and deaths, July is the peak month.

The number of deaths from lightning during the past five years (30) is scarcely half the expected number if the average for the whole period had prevailed, in spite of the increased population. There are indications that thunderstorms may have been less frequent, the monthly average based on the four months June to September having been:

	days, thunder heard per month
1914-1916	5.8
1961-1963	4.2

Workers in the open air are especially liable to this hazard and the recorded occupations (for eight selected years between 1949 and 1963) have been:

agricultural	19
electrical and other engineering.....	5
other constructional workers, including joiners, painters	8
labourers (railway, brickworks).....	6
driver, postman, roundsman	3
armed forces	3
beach patrol, evangelist	2

Other occupations were:

persons of school age (males 6, females 2)...	8
indoor workers including housewives (males 8, females 7)	15
underground worker.....	1

Incidents in which more than one person died are fairly frequent, judging from consecutive registrations of death in the same place on the same day. They account

for about one fifth of all these deaths (6 out of 29 in the period 1945-47; 13 out of 78 in the period 1949-55). Particularly violent storms may account for several deaths in neighbouring counties on consecutive days. Thus in July 1955 deaths occurred in Somerset and Wiltshire on the 13th; on the 14th, five deaths (in two episodes) occurred in Hampshire, one in Berkshire and one in Surrey; and on the 15th one death occurred in Berkshire. Thunderstorms are most frequently reported from the Midlands and East Anglia; the two deaths reported in 1963 were from Cheshire and Doncaster respectively.

A direct hit causes instant death with severe physical damage to brain and haemorrhages into hollow organs and cavities. The highly charged body may be thrown some distance and clothing blown off.¹ In addition to fatal cases, there may be persons with lesser injuries as the result of the lightning strike; one death recorded above (14th July, Berkshire) was accompanied by 46 hospital admissions for burns, unconsciousness, amnesia or injuries to ear or eye.²

1. Hughes, J. P. W. Electric Shock and Associated Accidents. *Brit. Med. J. I.* 1956. pp. 852-855.
 2. Arden, G. P. *et al*, 1956. Lightning Accident at Ascot. *Ibid.* pp. 1450-1453.

M I S C E L L A N E O U S

Corrected notifications and deaths assigned to certain infectious diseases

Table C129 contains details of notifications and deaths assigned to some less frequently occurring infectious diseases in 1963. Among these were a notification of malaria contracted in England and Wales and 4 cases of typhus - 2 notifications and 2 deaths in cases for which there were no corresponding notifications. Previously there had been no more than one case of typhus per year since 1956.

Table C129. Corrected notifications and deaths assigned to a few uncommon infectious diseases, 1963, England and Wales

Disease (and ICD No.)	Administrative area of assignment	County	Number of cases	
			Notifications	
			Males	Females
Cholera (043)	-	-	-	-
Plague (058)	-	-	-	-
Relapsing fever (071)	-	-	-	-
Smallpox (084)	-	-	-	-
Typhus fever (100-108)	Liverpool C.B.	Lancashire	1	-
	Royal Leamington Spa M.B.	Warwickshire	1	-
Malaria (contracted in England and Wales 110-117)	Stoke Newington Met. B.	London A.C.	1	-

Table C129 - continued

Disease (and ICD No.)		Administrative area of assignment	County	Deaths	
				Date of death	
Cholera (043)	{ M F	- -	- -	- -	- -
Brucellosis (044)	{ M F	Kiveton Park R.D. Hammersmith Met. B.	Yorkshire, West Riding London A.C.	14th September 18th September	- -
Diphtheria (055)	{ M F	Plymouth C.B. Keighley M.B.	Devon Yorkshire, West Riding	4th December 9th December	- -
Plague (058)	{ M F	- -	- -	- -	- -
Anthrax (062)	{ M F	Colne Valley U.D. -	Yorkshire, West Riding -	27th September -	- -
Relapsing fever (071)	{ M F	- -	- -	- -	- -
Smallpox (084)	{ M F	- -	- -	- -	- -
Rabies (094)	{ M F	- -	- -	- -	- -
Typhus and other rickettsial diseases (100-108)	{ M F	Sodbury R.D. Alcester R.D.	Gloucestershire Warwickshire	16th February 29th June	- -
Actinomycosis (132)	{ M F	Margate M.B. -	Kent -	29th September -	- -

There were 33 notifications of diphtheria in 1963 compared to 16 in 1962 and 51 in 1961. Two deaths were attributed to this disease in 1963.

Table C130. Corrected notifications of diphtheria, 1963, England and Wales

Administrative area of assignment	County	Number of cases	
		M	F
Plymouth C.B.	Devon	1	-
Liverpool C.B.	Lancashire	2	1
Islington M.B.	London A.C.	3	3
Southwark M.B.	London A.C.	6	2
Hendon M.B.	Middlesex	2	-
Brighton C.B.	Sussex, East	4	-
Coventry C.B.	Warwickshire	-	1
Halifax C.B.	Yorkshire, West Riding	1	1
Keighley M.B.	Yorkshire, West Riding	3	3

Deaths from encephalitis certified secondary to infectious disease

Table C131 shows that there were 48 deaths in 1963 with mention of encephalitis on the death certificate as secondary to an infectious disease. In 21 of these deaths the encephalitis was associated with measles and a further 10 with chicken pox.

Table C131. Deaths from encephalitis certified as secondary to infectious disease, by underlying cause, sex and age, 1963, England and Wales

ICD No.	Cause of death	All deaths	Deaths from encephalitis secondary to infectious diseases												
			All ages	0-	1-	2-	3-	4-	5-9	10-14	15-24	25-44	45-64	65 and over	
080	Acute poliomyelitis	M	4	1	-	-	-	-	-	1	-	-	-	-	-
		F	3	-	-	-	-	-	-	-	-	-	-	-	-
085	Measles	M	62	15	1	2	3	2	1	3	1	1	1	-	-
		F	65	6	1	-	1	-	2	2	-	-	-	-	-
087	Chicken pox	M	13	6	1	1	1	1	-	-	1	-	1	-	-
		F	9	4	1	1	-	-	-	2	-	-	-	-	-
088	Herpes zoster	M	17	1	-	-	-	-	-	-	-	-	-	-	1
		F	38	1	-	-	-	-	-	-	-	-	-	-	1
089	Mumps	M	2	-	-	-	-	-	-	-	-	-	-	-	-
		F	5	4	-	-	2	-	1	-	1	-	-	-	-
093	Glandular fever (infectious mononucleosis)	M	4	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	1	-	-	-	-	-	-	1	-	-	-	-
096	Other diseases attributable to viruses	M	18	1	-	-	1	-	-	-	-	-	-	-	-
		F	16	1	-	-	-	-	-	-	-	-	-	1	-
480	Influenza with pneumonia	M	909	1	-	-	-	-	-	-	-	-	-	1	-
		F	1,116	-	-	-	-	-	-	-	-	-	-	-	-
483	Influenza with nervous manifestations, but without digestive or respiratory symptoms	M	3	2	-	-	-	-	-	-	1	-	1	-	
		F	4	2	-	-	-	-	-	-	-	-	2	-	
Total		M	1,032	27	2	3	5	3	1	4	2	2	2	1	
		F	1,257	19	2	1	3	-	3	4	1	1	-	3	

Tetanus

In Table C132 are some details regarding 13 deaths assigned to tetanus in 1963 and to 8 further deaths where tetanus was mentioned on the certificate but not as the underlying cause. Both these figures are the lowest recorded in recent years.

Table C132. Deaths due to tetanus by sex and age, showing cause of tetanus, 1963, England and Wales

Age	Sex	Cause of tetanus
(a) assigned to tetanus (ICD No. 061)		
3 years	M	Cut on leg by glass
5 "	F	Tetanus*
8 "	M	Puncture on foot, stepped on nail
13 "	M	Laceration of right cheek, struck by a piece of falling wood
14 "	M	Accident - no history of accident or injury
43 "	M	Tetanus*
44 "	M	Tetanus*
53 "	F	Nail from box pierced thumb
58 "	F	Tetanus*
65 "	M	Tetanus*
66 "	M	Scratched hand, sustained while pulling weeds
77 "	M	Accidentally pricked finger with thorn
87 "	M	Minor injuries to nose and forehead, fell at home
(b) assigned elsewhere		
7 years	F	Penetrating wound on the head, sustained in a fall from a bicycle
8 "	M	Result of infection after operation
20 "	M	Chronic ulcer of right leg and unhealthy wound of left leg
21 "	M	Undetermined origin*
55 "	M	Laceration of thumb, fell on cinder footpath
63 "	F	Perforated leg by bamboo shoot
67 "	F	Wound on knee, run down by car while crossing road
70 "	F	Cut in calf of left leg, fell on the highway

* No cause stated

Deaths associated with vaccination or other prophylactic inoculation

There were four deaths associated with vaccination or other prophylactic inoculation in 1963 compared with twenty nine in 1962, the year of the smallpox outbreak, and eight in 1961.

(a) ICD Nos. E940-E942, vaccinia, post-vaccinal encephalitis, and other complications of smallpox vaccination, and ICD Nos. E943, E944, post-immunization jaundice and hepatitis, and other complications of prophylactic inoculation.

The only death in this category was assigned to ICD No. E944, and it is interesting to note that no deaths were assigned to complications of smallpox vaccination, ICD Nos. E940-E942.

(1) Male aged 18 years, certified as I(a) Coronary thrombosis, I(b) Coronary atheroma, I(c) Anti-tetanus injection after driving pencil point into hand, II Glandular fever and serum sickness.

(b) Deaths assigned to other underlying causes but where the vaccination of the deceased was either mentioned on the certificate or ascertained by enquiry to have been associated with the death.

There were three deaths included in this category:

(1) Male aged 40 years, certified as streptococcal septicaemia following inoculation against yellow fever.

(2) Female aged 19 years, certified as I(a) Septicaemia, I(b) Burns to trunk and hand, II Anaphylactoid reaction to penicillin; ignition of clothing from contact with open fire.

(3) Female aged 49 years, certified as I(a) Uraemia, I(b) Acute toxic nephritis, I(c) Septicaemia following injection. Toxide tetanus serum apparently induced at time of, or after, injection.

(c) There were no deaths, in 1963, assigned to ICD No. 096.3 where the vaccination of a contact of the deceased was either mentioned on the certificate or ascertained by enquiry to have been associated with the death.

Deaths by cause, sex and age, connected with the administration of anaesthetics

Table C133 gives an analysis by age, sex and underlying cause of deaths in which anaesthesia was mentioned on the death certificate. There has been a marked decrease in these deaths since 1960 when there were 344 compared to 240 in 1963. Among individual causes of death commonly associated with anaesthetics which showed this downward trend were malignant disease and intestinal obstruction.

Table C133. Deaths by cause, sex and age, connected with the administration of anaesthetics, 1963, England and Wales

ICD No.	Cause of death	All ages		0-		5-		15-		25-		35-		45-		55-		65 and over	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
020-029	Syphilis and its sequelae	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
140-205	Malignant neoplasms including neoplasms of lymphatic and haematopoietic tissues	22	22	1	-	-	-	1	-	-	1	-	-	2	3	12	6	6	12
210-239	Benign neoplasms and neoplasms of unspecified nature	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-
250-254	Diseases of thyroid gland	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
260	Diabetes mellitus	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-
330-334	Vascular lesions affecting central nervous system	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
370-389	Diseases of the eye	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
410-416	Chronic rheumatic heart disease	1	4	-	-	-	-	-	-	-	-	4	1	-	-	-	-	-	-
420-422	Arteriosclerotic and degenerative heart disease	8	8	-	-	-	-	-	-	1	-	1	1	1	-	2	1	3	6
440-447	Other hypertensive diseases	1	1	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
450-456	Diseases of arteries	3	3	-	-	-	-	-	-	-	-	-	1	1	-	1	2	1	-
500-502	Bronchitis	3	1	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	1
510	Hypertrophy of tonsils and adenoids	2	2	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-
530-535	Diseases of teeth and supporting structures	4	7	-	-	1	1	-	1	1	2	-	1	2	-	1	-	1	-
540, 541	Ulcer of stomach and duodenum	13	3	-	-	-	-	-	-	-	-	-	4	-	2	1	7	2	-
550-553	Appendicitis	3	5	-	-	-	-	-	-	1	1	-	-	-	2	-	-	4	-
560, 561, 570	Intestinal obstruction and hernia	12	7	-	-	-	-	-	-	-	-	2	-	1	1	3	-	6	6
572	Chronic enteritis and ulcerative colitis	2	2	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2
580-587	Diseases of liver, gallbladder and pancreas	1	4	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3	-
590-609	Diseases of urinary system	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
610	Hyperplasia of prostate	10	-	-	-	-	-	-	-	-	-	-	-	-	2	-	8	-	-
640-689	Deliveries and complications of pregnancy, childbirth and the puerperium	-	3	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	-
720-749	Diseases of the bones and organs of movement	4	2	-	-	1	-	-	-	1	-	1	1	1	-	-	-	-	1
750-759	Congenital malformations	3	6	2	-	1	3	-	-	-	1	-	-	1	-	1	-	-	-
Rem.001-795	All other diseases	12	12	4	1	1	1	-	-	1	1	-	1	1	3	2	2	3	3
E810-E835	Motor vehicle accidents	2	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-
E900-E904	Accidental falls	2	7	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	7
Rem.E800-E999	All other accidents and violence	7	6	1	-	-	1	1	1	-	2	-	-	1	1	1	-	3	1
	All causes	118	112	8	2	7	7	3	3	5	9	7	10	18	11	27	17	43	53

Deaths with mention of anaesthesia for dental operations

A review of death reports, in which anaesthesia used in connection with dental operations was mentioned as a contributory factor, has been carried out for some recent years. The total number of such deaths in the period 1958-63 was 51, the annual numbers being as follow:-

	1958	1959	1960	1961	1962	1963
Males	4	8	4	5	3	4
Females	6	3	5	1	1	7

The distribution by age for the period of six years were:

	Total	0-	5-	15-	25-	35-	45-	55-	65-	75 and over
Males	28	1	4	2	5	4	9	1	2	-
Females	23	1	2	4	3	5	1	3	3	1

The place in which death occurred was recorded only for 1962 and 1963, the numbers being as follow:-

hospital, not otherwise specified	10
private hospital	1
at home	1
elsewhere	3

In the period 1958-63, the operation being performed were recorded as:-

extraction (removal of teeth)	
not otherwise specified	45
removal of impacted (wisdom)	
tooth	2
conservation	1
dental, not otherwise specified	3

A variety of anaesthetic and adjuvant agents was employed either alone or in combination for these 51 operations. They can be classified as:

Gaseous (general) anaesthetics	1958	1959	1960	1961	1962	1963
not otherwise specified	-	-	-	-	1	2
ether	1	1	-	-	-	-
ethyl chloride	2	1	-	-	-	-
nitrous oxide ("gas")	7	7	7	5	3	5
trichlorethylene (T.C.E.)	3	1	1	1	-	3
halothane ("Fluothane")	-	-	1	-	3	2

Intravenous anaesthetics	1958	1959	1960	1961	1962	1963
thiopentone sodium ("Pentothal")	5	5	4	1	1	3
methohexitone sodium ("Methahexital")	-	-	-	1	-	1
Auxiliary agents						
(P) to diminish pain: omnupon, pethidine	-	2	-	-	1	1
(R) muscle relaxant: flaxedil, gallamine, scoline, suxamethonium, tubarine	5	3	2	2*	1	2
(H) hyoscine group of drugs: atropine, scopolamine	-	1	3	-	-	1
(O) oxygen	-	-	4	3	2	4

*1 male received a combination of two muscle relaxants.

The combinations of anaesthetics employed are set out, with the auxiliary agents shown by the contractions indicated above (i.e. P, R, H or O).

general anaesthetic not otherwise specified	3	
ether + nitrous oxide + thiopentone	2	(R=1)
ethyl chloride	2	
+ trichlorethylene + nitrous oxide	1	
trichlorethylene	2	
+ nitrous oxide	5	(O=4)
+ nitrous oxide + thiopentone	2	(R=1)
+ methohexital	1	
nitrous oxide	11	(O=2:PR=1)
+ thiopentone	5	(O=3:H=1:R=4)
+ halothane	3	(O=3)
+ thiopentone and halothane	2	(O=1:PR=1:HR=1)
+ methohexitone	1	(O=1)

halothane	1	(O=1)
thiopentone sodium	7	(R=3:HPR=2:H=1)
+ tubarine	1	(H=1)
methohexitone sodium	1	(RR=1)

From a ten per cent sample of in-patient discharges from N.H.S. hospitals it is known that about 37,900 dental operations (males 16,620, females 21,280) are performed in these hospitals annually, giving estimated rates of misadventure per 1,000 operations as:

males	0.28
females	0.18

There is no means of calculating similar rates for the various anaesthetics adjuvants and combinations used.

Therapeutic misadventures

Deaths have been included in the analysis of therapeutic misadventures on the basis of additional material specially extracted from death certificates in those cases where outward effects of therapy are thought to have been (at least) partly responsible for the acceleration of death. These misadventures are not normally coded and tabulated as causes of death as, by international agreement, the underlying sickness is used as the basis for principal tabulations of death. The trend since 1959 is shown in the following table:

Fatal misadventure due to:	Number of deaths				
	1959	1960	1961	1962	1963
(i) adverse reaction to drug or therapy	136	147	188	220	181
(ii) mistake in drug administration	3	1	2	-	1
(iii) overdose of drug	127	117	117	157	166
(iv) accident in technique	68	59	110	96	95

The number of deaths associated with an adverse reaction to therapy increased from 136 in 1959 to 220 in 1962, falling to 181 in 1963. The improvement in 1963 was reflected in fewer cases of misadventure involving corticosteroid, analgesic and anticoagulant drugs as compared with 1962. Deaths associated with side effects from corticosteroids, for example, reached a peak of 40 in 1962 falling to 25 in 1963 (Table C137). Only three death certificates mentioned ill-effects resulting from transfusions in 1963, the average for the preceding six years being eight. On the other hand, psychiatric drugs were involved in 18 cases in 1963 as compared with an average of 8 in 1957-62 ($P < .05$).

Types of adverse reaction

Anaphylactic shock and other allergic states. There were 10 cases where the fatal adverse reaction took the form of an allergic condition, and in 7 of these penicillin was involved.

Aplastic anaemia, agranulocytosis, thrombocytopenia. Forty-one deaths could be included in this group. The drugs most frequently responsible were:

	Cases
Butazolidin and Tanderil (1 case)	8
Chloromycetin	6
Anti-cancer drugs	13

There were a further 2 deaths from haemorrhage following administration of anti-cancer drugs, without mention of blood changes.

Haemorrhage. There were 21 cases of fatal haemorrhage resulting from medication excluding those cases associated with aplastic anaemia and radiotherapy burns. 15 of these were associated with the administration of anticoagulants, phenindione being mentioned in 9. Salicylates and aspirin were considered to be the cause of fatal bleeding in 4 cases.

Jaundice, liver damage. Of 15 deaths associated with jaundice, chlorpromazine had been administered in 6, monamine oxidase inhibitors in 4, and 3 cases had had a blood transfusion.

Adrenal failure. Adverse reactions to corticosteroids were mentioned in 25 death certificates and in 10 of them the death followed adrenal failure.

Table C134. Fatal therapeutic misadventures due to adverse reaction to drug or therapy, 1963, England and Wales

Drug or therapy	No. of cases	Nature of adverse reaction	Terminal complication if different from preceding column
ACTH	1	Encephalitis	Thrombocytopenic purpura
Adrenaline	1	Adrenaline apoplexy	Respiratory insufficiency
Anadin	1	Agranulocytosis	
Anticoagulant	5		
	1	Cerebral haemorrhage	
	1	Dissecting aneurysm with severe haemorrhages	
	1	Haemopericardium	
	1	Massive retroperitoneal haemorrhage	
	1	Multiple haemorrhages	
Anticonvulsant	1	Pancytopenia	Bronchopneumonia
Antimetabolite	1	Aplastic anaemia	Multiple haemorrhages
Anti-tetanus serum	1	Serum sickness	Coronary thrombosis
Aspirin	2		
	1	Gastric haemorrhage	Melaena
	1	Haematemesis	
Butazolidin	5		
	1	Agranulocytosis	Pulmonary embolism
	1	Agranulocytosis and toxic hepatitis	Acute hepatic failure
	1	Aplastic anaemia	
	1	Hypostatic pneumonia	Septicaemia
	1	Thrombocytopenia	Intestinal haemorrhage
Chlorambucil	1	Aplastic anaemia	Pneumonia
Chloramphenicol	5		
	4	Aplastic anaemia	Acute ulcerative oesophagitis (1 case)
			Bronchopneumonia (1 case)
			Haemorrhage and anaemia (1 case)
			Pancytopenia
Chloromycetin	1	Bone marrow aplasia	Unresolved right lower lobe pneumonia
	1	Agranulocytosis	
Chlorpromazine	5		
	1	Agranulocytosis	Haemorrhage, pneumonia
	1	Cholestatic jaundice	Renal failure
	1	Hepatitis	Congestive cardiac failure
	1	Obstructive jaundice	
	1	Unresolved jaundice	
Cobalt therapy	1	Sloughed bladder	Renal failure
Colchicine	1	Agranulocytosis	Septicaemia
Corticosteroids	20		
	2	Acute adrenal failure	
	1	Acute suprarenal failure	
	1	Adrenal atrophy	Bronchopneumonia
	1	Adrenal failure	Peripheral failure
	1	Adrenal insufficiency	Bronchopneumonia
	1	Adrenocortical insufficiency	Bronchopneumonia
	1	Bleeding gastric ulcer	
	1	Bronchopneumonia	
	1	Corticosteroid myopathy	Acute respiratory failure
	1	Gangrenous cholecystitis	Toxaemia
	1	Hydro-adrenalism	

Table C134 - continued

Drug or therapy	No. of cases	Nature of adverse reaction	Terminal complication if different from preceding column
Corticosteroids - <i>continued</i>	1	Hypertension and ischaemic heart disease	Cardiac failure
	2	Osteoporosis	Carcinoma of breast (1 case) Cerebral thrombosis (1 case)
	1	Perforated peptic ulcer	Peritonitis
	1	Peritonitis	
	1	Peritonitis and multiple bowel perforations	Pulmonary embolism
	1	Pituitary adrenal failure	
	1	Varicelliform encephalitis	
Cortisone	3		
	1	Acute adrenal insufficiency	
	1	Adrenocortical failure	
	1	Hyponatraemia and hypokalaemia	
Cyclophosphamide	1	Haemorrhage from the vocal chord	Cardiac arrest
Digitalis	1	Cardiac arrhythmia	
Dindevan	8		
	1	Abdominal haemorrhage	
	1	Cerebral vascular accident	
	1	Haemoperitoneum	
	1	Intestinal haemorrhage	Myocardial failure
	2	Multiple haemorrhages	
	1	Sensitivity	Renal failure
	1	Suprarenal haemorrhage	
Diuretic	1	Hyperkalaemia	Cardiac arrest
Drazine	1	Acute yellow atrophy of the liver	Liver failure
Electro-convulsive therapy	6		
	1	Asphyxia	
	1	Coronary arteriosclerosis	Acute myocardial infarction
	1	Fat embolism	Acute bronchopneumonia
	1	Heart failure	
	1	Left ventricular fibrillation	Acute pulmonary oedema
	1	Pulmonary collapse	
Epanutin	1	Pancytopenia	Bronchopneumonia
Fentazin and Daptazole	1	Agranulocytosis	Toxaemia
Fluorouracil	1	Agranulocytosis	Bronchopneumonia
Glucose and chloroform water	1	Respiratory failure	
Heparin	1	Perinephric haematoma	Brain stem ischaemia
Hydrocortisone	1	Peptic ulcer	Shock
Insulin	2		
	1	Hypoglycaemic coma	
	1	Irreversible insulin coma	
Largactil	4		
	2	Agranulocytosis	Pulmonary embolism (1 case) Pyaemia (1 case) Bed sores (1 case)
Mersalyl	2	Jaundice	
Methotrexate	1	Congestive cardiac failure	
	4		
	1	Agranulocytosis	
	1	Bronchopneumonia	
	1	Hypogranulocytosis	Terminal pneumonia
	1	Leukopenia	Bilateral bronchopneumonia

Table C134 - continued

Drug or therapy	No. of cases	Nature of adverse reaction	Terminal complication if different from preceding column
Nardil	3		
	1	Acute atrophy of liver	
	1	Acute hepatic necrosis	
	1	Toxic hepatitis	Acute liver failure
Nitrogen mustard	2		
	1	Aplastic anaemia	
	1	Pancytopenia	
Parstelin	2		
	1	Acute haemolysis	Acute renal failure
	1	Hypertension	
Penicillin	7		
	1	Allergic vasculitis	Uraemia
	2	Anaphylactic shock	
	1	Anaphylaxis	Irreversible cerebral anoxia
	1	Hypostatic pneumonia	
	1	Sensitisation	Anaphylactoid shock
	1	Shock	
Penicillin and streptomycin	1	Anaphylactic shock	
Phenacetin	2		
	1	Chronic nephritis	Uraemia
	1	Hypertension	Congestive cardiac failure
Phenindione	2		
	1	Haemorrhage from the intestine	
	1	Pontine haemorrhage	
Phenylbutazone	3		
	1	Agranulocytosis	Acute lobar pneumonia
	2	Aplastic anaemia	Subarachnoid haemorrhage (1 case)
Radiation	41		
	1	Acute myeloid leukaemia	
	1	Body dehydrated	Carcinoma of cervix uteri
	1	Bulbous emphysema	Congestive cardiac failure
	1	Fibrosis of left lung	Congestive heart failure
	1	Fibrosis of lung	Coronary thrombosis
	1	Fibrosis of lungs	Carcinoma of bronchus
	1	Inferior vena caval thrombosis	Peripheral circulatory failure
	1	Irradiation necrosis	Carcinoma of cervix
	2	Irradiation sickness	Carcinoma right tonsil (1 case) Myocardial failure (1 case)
	1	Irradiation ulceration	Bronchopneumonia and emphysema
	1	Laryngeal radio-necrosis	Bronchopneumonia
	1	Pelvic fibrosis	Bronchopneumonia
	1	Perforated duodenal ulcer	Biliary peritonitis
	1	Pharyngo-tracheitis	Bronchopneumonia
	1	Pneumonia	
	1	Post irradiation	Cachexia
	1	Post irradiation fibrosis	Right lower lobe bronchopneumonia
	1	Post irradiation mediastinal fibrosis	Right bronchial carcinoma
	1	Post necrosis	Renal failure
	1	Post radiation bleeding	

Table C134 - continued

Drug or therapy	No. of cases	Nature of adverse reaction	Terminal complication if different from preceding column
Radiation - continued	1	Post radiation debility	Occlusion femoral artery
	2	Post radiation fibrosis	Intestinal obstruction (1 case) Myocardial degeneration (1 case)
	1	Post radiation fibrosis of pelvis	Epistaxis
	1	Post radiation fibrosis, right lung	Pulmonary embolism
	1	Post radiation leukaemia	Acute leukaemia
	1	Post radiation pulmonary fibrosis	Bronchopneumonia
	1	Pulmonary fibrosis	Lymphosarcoma
	1	Radiation burns	Massive haemorrhage
	1	Radiation myelitis	Coronary thrombosis
	1	Radiation necrosis of cervical spine	
	3	Radiation nephritis	Cerebral thrombosis (1 case) Gangrene of small intestine (1 case) Uraemia (1 case)
	1	Radiation ulcer right groin	Haemorrhage
	3	Radio-necrosis	Haemorrhage (1 case) Peritonitis (1 case) Right carotid haemorrhage (1 case) Melaena
	1	Severe cystitis	Uraemia
	1	Urinary incompetence and pyelonephritis	
Radioactive phosphorus	1	Aplastic anaemia	
Radio-isotopes	2		
	1	Meningitis	Carcinomatosis
	1	Pyogenic meningitis, pneumococcal	
Radium	2		
	1	Necrosis of jaw	Acute bronchitis
	1	Pelvic scarring	Cardiac infarction
Salicylates	2		
	1	Acute gastric erosion	Haemorrhage
	1	Gastric erosion	Haematemesis, melaena
	1	Agranulocytosis	Lobar pneumonia
Streptomycin			
Streptomycin and isoniazid	1	Aplastic anaemia	
Sulphadimidine and sulphmethoxypridazine	1	Aplastic anaemia	
Sulphonamide	2		
	1	Allergic dermatitis	Coronary thrombosis
	1	Sulphonamide nephritis	Uraemia
Tanderil	1	Agranulocytosis	
Tegretol	1	Marrow aplasia	Massive haematemesis
Tetracycline and gold	1	Aplastic anaemia	Bronchopneumonia
Thiotepa	6		
	3	Agranulocytosis	Carcinomatosis (1 case) Septicaemia (1 case) Haemorrhage (1 case)
	2	Aplastic anaemia	
	1	Petechiae and cerebral vascular accident	

Table C134 - continued

Drug or therapy	No. of cases	Nature of adverse reaction	Terminal complication if different from preceding column
Transfusion	3	Homologous serum jaundice	Acute yellow atrophy of liver (1 case)
	2		
Tranquillisers	1	Serum hepatitis	Liver failure
Trichlorethylene	1	Toxic hepatitis	Acute liver failure
Other drugs and therapy	1	Idiosyncrasy	Hepato-renal failure
Drug unknown	2		
Therapy unknown	1	Sensitivity	Pulmonary oedema
	1	Chronic hyponatraemia	Heart failure
Total	181		

Table C135. Therapeutic misadventures, summary of adverse reactions to drugs and therapy, 1957 to 1963, England and Wales

Note. If two drugs or other forms of therapeutic misadventure are reported as being jointly responsible for the immediate causation of death, each is counted as one-half in assessing comparative results.

Drug or therapy	1957 and 1958*	1959	1960	1961	1962	1963
Anaesthetic agents/	10	4	-	4	1	1
Analgesics	8	1	3½	4	15½	5
Antibiotics n.e.c.	36	12½	13	22½	19½	16½
Anti-tuberculosis	3	2½	½	1½	1½	-
Anticonvulsant	4	2	2	1	2	2
Anticoagulant	9½	13	10	20	21	16
Anti-cancer, -leukaemia	7	3½	12	9½	18	16
Anti-rheumatic	6	4	8	5½	14	12
Barbiturates and other hypnotics	3½	1	-	6½	3½	-
Corticosteroids and related drugs	11½	13	16½	28	40	25
Contrast media/	3	2	1	3	3	-
Diuretics	4	1	3	2½	-	2
Endocrine, hormones, nutritional metabolic agents	23	13	7	6½	8	3
Hypotensives	4½	1	½	-	1	-
Metals and compounds	9	2	2	3½	1	½
Psychiatric, tranquillizers	18	9	8½	5½	10	18
Radiation (radio-active substances and X-rays)/	42½	32	43	46	41	47
Sulphonamides	10½	2	3	3	2½	3
Transfusions/	21	6½	7½	6	8	3
Mixed responsibility	3	-	-	2	-	-
Drug n.e.c.	7	3	-	3½	4½	1
Drug unknown	5	-	5	1	2	1
Electro-convulsive therapy/	11	8	1	3	3	6
Other procedures	5	-	-	-	-	3
Total	265	136	147	188	220	181

*Combined total for the two years.

/These are also considered under "Accidents of technique".

Table C136. Fatal therapeutic misadventures due to mistake in drug administration, 1963, England and Wales

Therapeutic misadventure associated with	Nature of misadventure
	<i>Medically administered</i>
Sodium citrate	Sodium citrate given instead of sodium chloride

Table C137. Fatal therapeutic misadventures due to overdose of drug, 1963, England and Wales

Drug or combination of drugs	Cases			Drug or combination of drugs	Cases		
	Medically administered	Self administered	Administration not stated		Medically administered	Self administered	Administration not stated
Amylobarbitone		1	2	Migril		1	
Amytal			2	Nembudeine			1
Aspirin		6	5	Nembutal		6	7
Barbitone			1	Nembutal and Amytal			1
Barbiturate	1	14	10	Parstelin		1	
Barbiturate and alcohol		1		Penicillin	1		
Butobarbitone			1	Phenindione			1
Carbital		3	6	Phenobarbitone		3	2
Chloral hydrate		2	1	Quinalbarbitone		1	
Chloroform		1		Salicylates			1
Chlorptomazine and Welldorm		1		Seconal		5	2
Chlorpropamide			1	Sleeping tablets			1
Dibistin		1		Sodium Amytal		12	11
Diconal			2	Sonalgin			1
Dihydrocodeine bitartrate			1	Sonergan		1	
Dindevan		1		Soneryl		3	6
Doloxene			1	Soneryl and alcohol		1	
Doriden		1	1	Soneryl and phenobarbitone			1
Doriden and Carbital		1		Soporifics		1	
Ethobral			4	Tuinal	1	9	6
Evidorm			1	Tuinal and alcohol		3	
Insulin			1	Tuinal and promazine		1	
				Veganin and alcohol		1	
				Total	3	82	81

Table C138. Fatal therapeutic misadventures due to accident in technique, 1963, England and Wales

Therapeutic misadventure associated with	Nature of misadventure
Air embolism 6 cases	Air embolism, air entered veins during operation for removal of cysts from abdominal region of body. Air embolism arising in the course of necessary medical and surgical treatment; neonatal hypoglycaemia. Air embolism, blood transfusion during operation. Air embolism, hysterectomy for uterine fibroids. Cerebral air embolus, operation, rheumatic aortic incompetence and mitral stenosis. Myocardial infarction due to air embolism due to insufflation of the Fallopian tubes for infertility tests due to fibroids of the uterus.
Anaesthesia 4 cases	Anoxic necrosis of neurones of brain stem due to cardiac arrest due to mediastinal emphysema following perforation of trachea during induction of anaesthesia, and presence of cotton wool in trachea. Generalised demyelinating cerebral sclerosis. Teeth extraction. Asphyxia due to the inhalation of nitrous oxide administered for dental extraction Bronchopneumonia, appendix abscess and surgical anaesthesia; resuturing of surgical wound necessitated by fatty degeneration and infiltration of tissues of abdominal wall. Resuturing following earlier operation. Post operative collapse of lungs due to obstruction of air passages by mucoid secretion consequent on anaesthesia necessitated by operation for uterine prolapse.
Apparatus 2 cases	Acute haemorrhage occurring during dialysis on a kidney machine for traumatic anuria, due to multiple injuries. Anoxia and air embolism. Fallot's tetralogy operation. Heart and lung machine broke down.
Diathermy 2 cases	Peritonitis, ruptured urinary bladder, diathermy of bladder lumen. Suppurative pyelonephritis, diathermic ulceration of bladder; cancer of bladder.
Infection 5 cases	Infection with tetanus after operation; deformity of foot. Meningitis and pulmonary embolism following an infected ventriculography wound; cerebral cortical atrophy. Renal failure due to prostatism, toxæmia due to septic phlebitis of left arm following infusion; polycythaemia.

Table C138 - continued

Therapeutic misadventure associated with	Nature of misadventure
Infection - continued	Septicaemia and circulatory failure. Operation wound infection. Staphylococcal septicaemia, superficial thrombophlebitis, wound infection; acute stem cell leukaemia. Due to transfusion needle.
Injection and intravenous therapy 3 cases	Cardiac arrest following the too rapid administration of potassium following upon an operation for a ruptured appendix. Pulmonary embolism due to pelvic phlebothrombosis following intra-muscular injection of paraldehyde for depressive psychosis. Pulmonary embolus; carcinoma of stomach; transfusion reaction.
Needling 1 case	Atelectasis neonatorum; haemopericardium consequent upon penetration of the pulmonary trunk by a needle in the course of attempts to resuscitate.
Operative Angiography 53 cases	Tentorial pressure cone due to cerebral oedema due to malignant cerebral tumour; cerebral infarction due to internal stripping of carotid artery in the course of angiography.
Aortography	Retroperitoneal haematoma due to haemorrhage following aortography.
Arterial resection	Cardio-respiratory failure; gross haemorrhage into peritoneal cavity. Citrate intoxication, transfusions more than twenty pints of blood following resection of leaking abdominal aortic aneurysm.
Biopsy 5 cases	Cardiac failure due to cor pulmonale accelerated by intraperitoneal haemorrhage due to needle biopsy. Haemorrhage due to accidental puncture of an aberrant pulmonary blood vessel, biopsy; right bronchial carcinoma. Haemorrhage, needle biopsy of liver, partial cirrhosis with malignant hepatomata. Intraperitoneal haemorrhage, biopsy of liver, mitral stenosis. Peritonitis, biopsy; carcinoma of rectum.
Bronchoscopy 3 cases	Asphyxia due to massive intrabronchial haemorrhage from carcinoma of lung following bronchoscopy. Haemorrhage due to traumatic rupture of bronchus during bronchoscopy. Shock and haemorrhage due to ruptured pulmonary artery due to bronchoscopy, carcinoma of the right lung with metastases.

Table C138 - continued

Therapeutic misadventure associated with	Nature of misadventure
Operative - continued Cardiac catheterisation 2 cases	Cardiac tamponade due to haemopericardium due to puncture of the right atrial wall and aorta during cardiac catheterisation for investigation of mitral incompetence due to old rheumatic carditis. Retroperitoneal haemorrhage from femoral artery, catheterisation of heart in congenital heart disease, multiple deformities of heart.
Cholecystectomy	Aspiration pneumonia, choledochojejunostomy following ligation of common bile duct at cholecystectomy for gallstones. Surgeon ligated common bile duct in error.
Enema	Perforation of the rectum due to administration of an enema for constipation.
Gastrectomy	Rupture of liver during external cardiac massage for cardiac arrest after gastrectomy for duodenal ulcer.
Gastrostomy	Uraemia, gastrostomy and traumatic perforation of the oesophagus with left empyema. Diverticulum of the oesophagus and osteo-arthritis of the thoracic vertebrae.
Laparotomy	Operative haemorrhage following laparotomy following chronic pancreatitis.
Mitral valvotomy	Cardiac arrest, myocardial injury; mitral valvotomy.
Nephrectomy 2 cases	Haemorrhage occurring during an operation for nephrectomy, the cause being unknown. Uraemia, right hypernephroma of the kidney and surgical removal of the left kidney, removal of wrong kidney.
Oesophago-gastrectomy	Perforated oesophagus, oesophago-gastrectomy, carcinoma of oesophagus.
Oesophagus 21 cases Oesophagoscopy 9 cases	Acute mediastinitis and right bronchopneumonia due to perforation of the oesophagus, impaction of meat and oesophagoscopy. Acute mediastinitis following tear of the oesophagus occurring during oesophagoscopy. Emphysema due to rupture of the upper oesophagus due to oesophagoscopy; oesophagus ruptured by tube; carcinoma of lower oesophagus. Empyema and mediastinitis, perforation of oesophagus by surgical instrument, oesophagoscopy. Empyema and pneumothorax, oesophageal perforation, oesophagoscopy for stricture due to peptic oesophagitis and hiatus hernia.

Table C138 - continued

Therapeutic misadventure associated with	Nature of misadventure
Operative - continued Oesophagus - continued Oesophagoscopy - continued	Mediastinal and paraoesophageal abscess due to perforation of the oesophagus during oesophagoscopy; sore throat and difficulty in swallowing. Mediastinitis, traumatic perforation of oesophagus, oesophagoscopy for hiatus hernia. Nasal haemorrhage and mediastinitis, perforated oesophagus (operation), osteoarthritis of cervical spine. Bronchoscope and oesophagoscope. Purulent pericarditis and pleural empyema due to rupture of oesophagus due to passage of oesophagoscope, hypertension, operation for hernia.
Oesophagotomy	Rupture of oesophagus following operation for removal of a dental plate he had swallowed.
Other specified Dilatation 8 cases 2 cases	Toxaemia, empyema of left lung, oesophageal perforation following dilatation for benign stricture. Traumatic rupture of oesophagus during operation of dilatation of oesophagus for achlasia of cardia.
Intubation 6 cases	Asphyxia due to haemorrhage, perforation of aorta; plastic oesophageal tube introduced for complete dysphagia due to carcinoma of oesophagus. Carcinoma of oesophagus, perforation of oesophagus by tube. Erosion of oesophagus by Souttar's tube, inoperable carcinoma of oesophagus. General peritonitis, perforation of stomach wall by oesophageal tube inserted for relief of obstruction. Respiratory failure, insertion of oesophageal tube, oesophageal stricture; carcinomatosis, post radiation fibrosis. Rupture of oesophagus, passage of Mousseau-Barbin tube, carcinoma of oesophagus.
Not specified 3 cases	Haemorrhage (secondary) due to perforation of oesophagus due to operation for removal of foreign body, swallowed a meat bone. Instrumental rupture of the oesophagus, oesophagitis, diaphragmatic hernia. Rupture of oesophagus following the procedure of gastric lavage, accidentally sustained.

Table C138 - continued

Therapeutic misadventure associated with	Nature of misadventure
Operative - continued	
Pneumonectomy 4 cases	Acute anaemia, tear in superior vena cava, operative haemorrhage; carcinoma of right lung. Cardiac failure during right pneumonectomy, carcinoma of right lung; blood loss when superior vena cava was cut into. Haemorrhage, operative rupture of aorta, cardiac inhibition, myocardial fibrosis, carcinoma of left lung. Shock and haemorrhage due to accidental operative haemorrhage, carcinoma of bronchus and pneumonectomy.
Sigmoidoscopy	Pulmonary oedema, operation, perforation of sigmoid colon by sigmoidoscope, investigation of rectal bleeding.
Surgical extraction of teeth	Hypostatic bronchopneumonia, cerebral anoxia, operation for extraction of teeth.
Thoraco-laparotomy	Bronchopneumonia, para-oesophageal abscess due to abrasion of posterior wall of oesophagus; exploration for hiatus hernia.
Tracheotomy 2 cases	Haemorrhage from innominate vein during tracheotomy, vein displaced upward by dilated aorta. Inhalation of blood due to tracheotomy during surgical operation for carcinoma of larynx.
Miscellaneous operations 2 cases	Subdural haematoma, operation for endocrine exophthalmos. Uraemia due to bilateral chronic renal disease and terminal pulmonary infection, operation on heart.
Post operative 12 cases	
Appendicectomy	Toxaemia, perforation large intestine, stitch abscess round steel wire following appendicectomy; perforated appendix.
Gastric operation	Suppurative bronchopneumonia due to acute diffuse peritonitis and ileus due to leakage round a drainage tube inserted into duodenum following operation on stomach.
Herniorrhaphy	Haemorrhage due to injury to the inferior vena cava occurring during its ligation due to pulmonary embolism and infarction due to peripheral venous thrombosis following herniorrhaphy.
Hysterectomy	Post operative internal haemorrhage from unsutured vein which was overlooked. Hysterectomy for carcinoma of uterine body; ischaemic heart disease.
Lobectomy	Cardiac tamponade, intrapericardial haemorrhage due to perforation of the wall of the right ventricle by a wire suture becoming accidentally detached following right middle upper lobectomy for bronchiectasis.

Table C138 - continued

Therapeutic misadventure associated with	Nature of misadventure
Post operative - continued	
Nephrectomy	Acute haemorrhage from unsutured artery, nephrectomy of left kidney for carcinoma.
Oesophageal intubation	Haematemesis, carcinoma of oesophagus, erosion of oesophageal tube through oesophagus.
Pneumonectomy 2 cases	Haemorrhage from pulmonary artery following pneumonectomy for carcinoma of left bronchus. Slipped ligature on pulmonary artery. Haemorrhage from the pulmonary artery due to failure of a ligature inserted during resection of left lung for carcinoma.
Prostatectomy	Mediastinitis and bronchopneumonia, oesophageal tear in the post operation period following prostatectomy. (Oesophageal stenosis dilated fourteen days before death). Emphysema.
Thyroidectomy	Cerebral ischaemia, interruption of blood supply to brain from left common carotid vessels following ligation. Right carotid artery injured during operation of thyroidectomy for reticulosarcoma of thyroid.
Packs, swabs, etc. 4 cases	Abscess and osteomyelitis following retained surgical swab following operation for pinning of fractured femur more than a year ago. Acute pulmonary oedema due to left ventricular failure due to pulmonary infarction and old myocardial fibrosis associated with multiple intra-abdominal abscesses due to peritonitis from swab left in abdomen during resection of abscesses due to localised diverticulitis.
Transfusion 3 cases	Acute staphylococcal bronchitis with acute kidney disease and vesicle fistula, operation swab in bladder, femoral hernia. Paralytic ileus following retention of a swab following hysterectomy for multiple fibroids. Cardiac failure, anaemia and exchange transfusion, haemolytic disease. Haemorrhage and shock to the head and pelvis accelerated by haemolytic transfusion; knocked down by car. Pulmonary oedema, left ventricular failure following transfusion for rectal polyp, haemorrhagic anaemia and gastro-intestinal bleeding.
Total 95 cases	

Misadventures due to accident in surgical technique (1959-1963)

The deaths grouped under this heading were with few exception assigned to some other underlying cause of death, although mention had been made of an operative procedure as contributing to the fatal outcome. Two only were assigned to surgical treatment E950, and three to injections, infusions and transfusions N998. The therapeutic intervention has thus a variable responsibility for death, and difficulty arises in its assessment both individually at the stage of coding and statistically when tabulations have been prepared.

The number of misadventures must obviously depend upon the number of surgical interventions as one among many contributory factors. The opportunity has been taken of a count made on a sample basis in 1961 of all operations performed in N.H.S. hospitals to express misadventures terminating in death as a proportion of the number of operations performed. The average annual number of fatal misadventures during the five years 1959-1963 has been used in conjunction with the 10 per cent sample of all hospital discharges during the central year, 1961. The limitations of this comparison and the variable concept of misadventure, depending on the hazardous intrinsic nature of the operation and the prognosis of the disease, need to be kept in mind. Operations performed outside N.H.S. hospitals are excluded, as well as operations performed in out-patient departments. It is also evident that some procedures are not normally recorded as operations (enema, transfusion); and it is likely that other procedures are incompletely recorded, having a greater probability of being recorded if anything has gone wrong, or if the procedure needed to be performed in an operating theatre rather than a ward (catheterisation, spinal puncture). Procedures to which these considerations may apply are marked with an asterisk.

Table C139. Therapeutic misadventures due to accidents in surgical technique, rate per 1,000 surgical procedures, 1959-1963, England and Wales

(Rates are based on 10 per cent sample taken in Hospital-In-Patient Enquiry 1961)

G.R.O.* code	Operation	Number of misadventures					No. of surgical investigations in sample	No. of surgical operations in sample	Mis-adventures per thousand procedures†
		1959	1960	1961	1962	1963			
	Neurosurgery	3	3	6	6	1	301	1,492	0.21
005	Excision of intracranial lesion	2	-	2	2	-	-	130	0.92
008	Encephalography and ventriculography	-	-	2	2	1	87	-	1.15
	Operations on endocrine system	1	-	1	-	2	13	1,381	0.06
	Ophthalmic operations	-	-	-	-	-	12	7,159	-
	Operations on ear, nose and throat	3	3	4	5	2	375	7,068	0.05
245/6	Tracheotomy and tracheostomy	3	3	3	3	2	-	136	2.06
	Operations on buccal cavity and oesophagus	5	9	19	17	26	706	22,548	0.65
287	Oesophagoscopy	1	7	10	7	11	595	-	1.21
288	Dilatation, intubation	4	1	6	8	11	-	177	3.39
	Thoracic surgery	11	12	20	18	19	1,018	1,596	0.61
304	Operations on valves of heart	-	1	2	3	2	-	313	0.51
307	Pericardiocentesis*	2	2	2	2	-	-	-	...

Table C139 - continued

G.R.O.* code	Operation	Number of misadventures					No. of surgical investigations in sample	No. of surgical operations in sample	Mis-adventures per thousand procedures†
		1959	1960	1961	1962	1963			
	Thoracic surgery - continued								
319	Cardiac catheterisation, massage, other operations on heart	1	1	2	-	4	126	9	1.19
332	Thoracentesis	-	1	2	3	-	-	77	1.56
338	Bronchoscopy	-	1	3	6	4	821	-	0.34
344	Pneumonectomy (lobectomy etc.)	4	5	5	1	7	-	603	0.73
	Gastro-intestinal and abdominal surgery	20	12	25	21	17	1,316	35,428	0.05
400	Laparotomy	-	-	4	3	1	-	1,958	0.08
402/4	Repair of hernia	-	2	1	-	1	-	8,808	0.01
422/3	Gastrectomy	4	2	3	4	2	-	1,874	0.16
441	Appendicectomy	2	1	2	1	2	-	11,506	0.01
487	Sigmoidoscopy*	2	1	1	3	1	1,064	2	0.15
479	Enema, barium enema*	1	2	3	1	1
502	Needle biopsy of liver	3	2	4	3	3	28	-	10.7
	Genito-urinary surgery	4	4	4	5	6	4,233	9,532	0.03
606	Nephrectomy	1	1	1	1	3	-	376	0.37
688	Dilatation of urethra	1	-	1	2	-	-	593	0.13
675/7	Prostatectomy	1	1	-	1	-	-	1,997	0.03
	Gynaecological operations	1	4	5	-	5	1,850	19,536	0.01
721/24	Hysterectomy	-	3	1	-	3	-	4,170	0.03
	Orthopaedic surgery	4	2	4	6	2	218	16,462	0.02
806	Reduction of fracture with fixation	2	-	-	1	1	-	2,147	0.04
	Operations on peripheral blood vessels and lymphatic system	2	2	3	3	3	534	4,673	0.05
951	Blood transfusion*	12	11	7	11	9	-	-	-
	incompatibility	4	1	-	1	1	-	-	-
	air embolism	2	1	1	1	1	-	-	-
	serum hepatitis infected	3	2	1	6	3	-	-	-
	excess amount, heart failure not classified above	-	1	1	1	1
	not classified above	3	5	4	2	2	-	-	-
953	Intravenous transfusion*	1	1	6	1	3	-	-	-
955	Intramuscular injection*	4	1	-	1	1	-	-	-

* General Register Office: Code of Surgical Operations. H.M.S.O. London, 1956. † See text.

Live births, stillbirths and stillbirth rates by age and parity of mother and place of confinement

In England and Wales in 1963 there were 854,055 live births and 14,989 stillbirths. The tables which follow give details of the distribution of these births by place of confinement, and age and parity of mother. (A more detailed analysis of age and parity is now shown in Tables C143 to C147.) The categories used for place of confinement are:

N.H.S. hospital, i.e. hospitals and homes under the National Health Service, except psychiatric hospitals;

Other hospital, which are mainly maternity homes not under the National Health Service;

Table C140. Deaths by cause and sex according to type of institution, etc., in which they occurred, 1963, England and Wales

Cause of death	ICD No.	Total deaths		Psychiatric hospitals				Other hospitals and institutions for the care of the sick				Other institutions		At deceased person's own home		In other private houses and other places	
				N.H.S.		Other than N.H.S.		N.H.S.		Other than N.H.S.							
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
All causes		292,410	280,458	7,558	10,671	136	308	137,464	124,857	4,717	9,940	7,531	11,949	118,589	110,229	16,415	12,504
Infective and parasitic diseases	001-138	3,328	1,698	133	79	1	2	2,072	1,061	25	17	41	18	981	479	75	42
Tuberculosis of respiratory system	001-008	2,022	587	57	28	1	-	1,200	359	16	7	24	3	689	178	35	12
Tuberculosis, other forms	010-019	169	182	2	7	-	-	145	149	-	4	1	-	19	22	2	-
Syphilis and its sequelae	020-029	485	335	42	17	-	1	259	147	4	-	7	6	146	143	27	21
Gonococcal infection and other venereal diseases	030-039	13	-	-	-	-	-	10	-	-	-	1	-	2	-	-	-
Infectious diseases commonly arising in the intestinal tract	040-049	43	25	4	3	-	-	29	20	-	-	4	2	5	-	1	-
Other bacterial diseases	050-064	192	138	6	1	-	-	152	110	1	-	-	-	27	23	6	4
Spirochaetal diseases, except syphilis	070-074	3	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-
Diseases attributed to viruses	080-086	352	344	21	20	-	1	235	225	4	5	4	7	84	82	4	4
Typhus and other rickettsial diseases	100-108	1	1	-	-	-	-	1	1	-	-	-	-	-	-	-	-
Malaria	110-117	4	2	-	-	-	-	3	2	-	-	-	-	1	-	-	-
Other infective and parasitic diseases	120-138	44	84	1	3	-	-	36	48	-	1	-	-	7	31	-	1
Neoplasms	140-239	55,846	47,964	578	603	7	13	30,004	24,042	1,484	2,341	582	720	22,358	18,148	833	2,097
Malignant neoplasm of buccal cavity and pharynx	140-148	978	602	7	5	-	-	482	292	44	24	28	7	400	254	17	20
Malignant neoplasm of digestive organs and peritoneum	150-159	19,067	18,443	198	222	1	5	9,535	8,677	544	892	232	320	8,258	7,394	299	933
Malignant neoplasm of respiratory system	160-165	21,563	3,948	201	48	4	-	11,330	2,213	476	153	148	39	9,066	1,309	338	186
Malignant neoplasm of breast and genito-urinary organs	170-181	7,314	18,394	81	215	-	7	4,030	8,590	244	1,022	122	295	2,747	7,489	90	776
Malignant neoplasm of other and unspecified sites	190-199	3,099	3,256	48	62	1	1	1,890	1,907	112	153	24	32	975	1,000	49	101
Neoplasm of lymphatic and haematopoietic tissues	200-205	3,171	2,581	21	21	1	-	2,231	1,812	53	80	21	20	812	579	32	69
Benign neoplasm	210-229	304	450	6	18	-	-	224	334	6	12	6	5	57	74	5	7
Neoplasm of unspecified nature	230-239	350	290	16	12	-	-	282	217	5	5	1	2	43	49	3	5
Allergic, endocrine system, metabolic, and nutritional diseases	240-289	2,576	4,711	63	129	1	1	1,477	2,696	44	84	45	90	874	1,567	72	144
Allergic disorders	240-245	710	982	11	22	1	1	283	400	13	13	9	13	363	482	30	51
Diseases of thyroid gland	250-254	108	788	5	23	-	-	58	461	1	20	2	16	39	237	3	31
Diabetes mellitus	260	1,371	2,433	36	63	-	-	882	1,533	26	46	28	54	372	685	27	52
Diseases of other endocrine glands	270-277	142	160	1	5	-	-	101	114	-	-	3	2	32	38	5	1
Avitaminoses, and other metabolic diseases	280-289	245	348	10	16	-	-	153	188	4	5	3	5	68	125	7	9
Diseases of the blood and blood-forming organs	290-299	739	1,382	20	31	1	-	490	871	11	20	10	34	196	391	11	35
Mental, psychoneurotic, and personality disorders	300-326	430	723	150	260	6	8	160	319	3	24	57	20	53	82	1	10
Psychoses	300-309	317	598	128	240	3	4	101	269	3	20	55	19	27	42	-	4
Psychoneurotic disorders	310-318	12	34	1	2	-	-	8	14	-	3	1	1	2	14	-	-
Disorders of character, behaviour, and intelligence	320-326	101	91	21	18	3	4	51	36	-	1	1	-	24	26	1	6
Diseases of the nervous system and sense organs	330-398	35,033	51,176	979	1,394	11	53	18,006	24,124	766	2,315	1,628	2,862	13,000	18,739	643	1,689
Vascular lesions affecting central nervous system	330-334	32,264	48,076	785	1,218	8	44	16,419	22,314	707	2,174	1,523	2,702	12,242	17,990	580	1,634
Inflammatory diseases of central nervous system	340-345	720	836	18	20	1	-	518	593	12	27	28	34	139	151	4	11
Other diseases of central nervous system	350-357	1,902	2,098	175	150	2	9	954	1,093	47	112	75	125	593	568	56	41
Diseases of nerves and peripheral ganglia	360-369	40	50	-	2	-	-	36	43	-	-	-	-	4	5	-	-
Inflammatory diseases of eye	370-379	2	2	-	-	-	-	2	2	-	-	-	-	-	-	-	-
Other diseases and conditions of eye	380-389	13	30	-	1	-	-	10	21	-	1	1	-	2	5	-	2
Diseases of ear and mastoid process	390-398	92	84	1	3	-	-	67	58	-	1	1	1	20	20	3	1
Diseases of the circulatory system	400-468	108,513	105,106	3,087	4,577	68	147	36,856	34,320	1,363	3,546	3,161	5,554	55,057	51,341	8,921	5,621
Rheumatic fever	400-402	52	45	-	1	-	-	29	23	1	-	1	1	18	19	3	1
Chronic rheumatic heart disease	410-416	2,382	4,542	57	86	-	2	1,197	2,329	30	85	31	102	938	1,750	129	188
Arteriosclerotic and degenerative heart disease	420-422	83,559	71,256	2,360	3,443	54	112	24,893	19,954	977	2,519	2,347	4,072	44,920	37,021	8,008	4,135
Other diseases of heart	430-434	6,602	8,399	139	235	-	3	3,411	3,778	113	289	230	383	2,552	3,372	157	339
Hypertensive heart disease	440-443	4,082	6,201	177	250	1	5	1,422	1,789	48	193	141	284	2,103	3,348	192	332
Other hypertensive disease	444-447	2,574	2,901	83	97	1	5	1,100	992	38	65	76	162	1,153	1,425	123	155
Diseases of arteries	450-456	7,420	8,932	205	336	12	17	3,441	3,547	138	349	315	505	3,049	3,815	280	363
Diseases of veins and other diseases of circulatory system	460-468	1,842	2,830	66	129	-	3	1,363	1,908	20	46	20	45	324	591	49	108
Diseases of the respiratory system	470-527	46,870	33,195	1,979	2,816	27	69	23,177	15,520	571	856	1,549	1,885	18,514	11,060	1,053	989
Acute upper respiratory infections	470-475	65	64	2	2	-	-	27	31	-	-	-	2	29	21	7	8
Influenza	480-483	1,442	1,772	77	171	2	8	308	318	21	60	160	294	823	855	51	66
Pneumonia	490-493	16,945	19,118	1,399	2,263	20	49	10,289	10,589	257	509	569	1,039	4,070	4,272	341	397
Bronchitis	500-502	24,832	10,500	409	301	5	11	10,782	3,751	258	744	472	12,078	5,276	558	463	
Other diseases of respiratory system	510-527	3,586	1,741	92	79	-	1	1,771	831	37	61	76	78	1,514	636	96	55
Diseases of the digestive system	530-587	7,714	7,667	132	132	-	2	6,147	5,800	112	161	54	106	1,180	1,346	89	120
Diseases of the buccal cavity and oesophagus	530-539	118	188	6	21	-	-	98	128	-	4	3	4	11	29	-	4
Diseases of the stomach and duodenum	540-545	2,964	1,861	52	25	-	-	2,346	1,221	37	38	21	28	483	322	25	27
Appendicitis	550-553	299	257	-	3	-	-	271	224	8	3	-	-	17	28	3	1
Hernia of abdominal cavity	560, 561	693	776	8	11	-	-	522	617	16	13	9	11	129	112	9	12
Other diseases of intestines and peritoneum	570-578	2,046	2,708	42	45	-	1	1,615	2,030	25	64	17	39	310	480	37	49
Diseases of liver, gallbladder and pancreas	580-587	1,594	2,077	24	27	-	1	1,295	1,582	26	39	4	24	230	377	15	27

Table C141. Deaths by cause and sex, according to method of certification, 1963, England and Wales

Cause of death	ICD No.	Total deaths		Coroner						Certifying medical practitioner								Uncertified	
				Inquest held				Post-mortem without inquest	After post-mortem		Operation mentioned on death certificate		Other examination mentioned on death certificate		No examination mentioned				
				With post-mortem		No post-mortem													
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
All causes		292,410	280,458	13,009	8,166	3,213	2,652	42,626	28,761	30,939	24,755	3,822	3,785	171	138	197,978	211,718	652	483
Tuberculosis of respiratory system	001-008	2,022	587	102	8	14	-	387	77	235	100	23	20	2	-	1,279	380	-	2
Tuberculosis, other forms	010-019	169	182	5	1	1	-	25	23	61	70	3	5	-	-	74	83	-	-
Syphilis and its sequelae	020-029	485	335	2	2	2	1	130	144	111	59	6	2	1	-	232	127	1	-
Typhoid fever	040	3	1	-	-	-	-	1	1	-	-	-	-	-	-	2	-	-	-
Dysentery, all forms	045-048	21	14	1	-	-	-	1	2	6	3	-	-	-	-	13	9	-	-
Scarlet fever and streptococcal sore throat	050, 051	7	3	1	-	-	-	3	1	1	-	-	-	-	-	2	2	-	-
Whooping cough	056	15	21	-	-	-	-	3	1	4	8	-	-	-	-	8	12	-	-
Meningococcal infections	057	88	58	1	1	-	2	44	28	23	18	1	-	-	-	18	11	1	-
Acute poliomyelitis	080	2	1	-	-	-	-	2	-	-	-	-	-	-	-	-	1	-	-
Measles	085	62	65	-	1	-	-	10	10	14	10	-	-	-	-	38	44	-	-
Typhus and other rickettsial diseases	100-108	1	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
Malaria	110-117	4	2	-	-	-	-	-	-	1	-	-	-	-	-	3	2	-	-
All other diseases classified as infective and parasitic	Rem. 001-138	449	428	26	10	6	1	70	52	128	115	-	3	-	1	219	245	-	1
Malignant neoplasms	140-205	55,192	47,224	215	46	38	16	2,357	1,432	7,471	5,097	2,276	2,727	137	109	42,685	37,781	13	16
Benign and unspecified neoplasms	210-239	654	740	12	6	2	1	120	132	176	234	25	47	6	3	313	317	-	-
Diabetes mellitus	260	1,371	2,433	6	3	3	-	95	142	192	321	25	33	-	-	1,046	1,934	4	-
Anaemias	290-293	558	1,187	4	1	-	2	23	66	141	213	1	1	-	1	389	901	-	2
Vascular lesions affecting central nervous system	330-334	32,264	48,076	98	32	13	11	2,214	3,173	1,830	2,384	8	7	1	2	27,960	42,427	40	40
Non-meningococcal meningitis	340	212	183	3	2	1	-	45	34	76	78	1	-	-	-	86	69	-	-
Rheumatic fever	400-402	52	45	5	-	-	-	15	15	12	18	-	-	-	-	20	12	-	-
Chronic rheumatic heart disease	410-416	2,382	4,542	26	6	2	3	498	671	406	738	13	61	-	1	1,435	3,059	2	3
Arteriosclerotic and degenerative heart disease	420-422	83,559	71,256	419	89	91	23	23,025	11,479	4,791	3,251	25	19	7	5	54,765	56,109	436	281
Other diseases of heart	430-434	6,802	8,399	23	13	2	3	325	233	557	483	4	4	-	-	5,685	7,648	6	15
Hypertension with heart disease	440-443	4,082	6,201	18	10	2	2	604	618	295	299	1	-	1	-	3,155	5,263	6	9
Hypertension without mention of heart disease	444-447	2,574	2,901	16	7	3	1	594	738	270	205	1	2	-	-	1,885	1,942	5	6
Influenza	480-483	1,442	1,772	5	1	1	1	130	93	32	29	-	-	-	-	1,273	1,646	1	2
Pneumonia	490-493	16,945	19,118	79	40	13	11	2,667	2,144	2,252	1,834	5	3	1	1	11,918	15,067	10	18
Bronchitis	500-502	24,632	10,500	348	26	53	6	2,830	1,220	1,777	654	10	-	1	-	19,986	8,587	27	7
Ulcer of stomach and duodenum	540, 541	2,799	1,542	33	6	7	3	637	337	908	450	212	91	4	1	997	652	1	2
Appendicitis	550-553	299	257	4	1	-	5	68	42	95	76	36	29	-	-	98	103	-	1
Intestinal obstruction and hernia	560, 561, 570	1,472	1,661	24	31	2	6	393	414	420	463	178	166	-	1	451	580	4	-
Gastritis, duodenitis, enteritis, and colitis, except diarrhoea of the newborn	543, 571, 572	1,031	1,566	16	18	2	1	218	280	300	419	56	86	-	-	437	762	2	-
Cirrhosis of liver	581	701	621	37	17	4	1	116	77	174	184	6	5	-	2	364	335	-	-
Nephritis and nephrosis	590-594	1,695	1,484	5	3	2	-	120	106	381	292	4	2	1	-	1,182	1,080	-	1
Hyperplasia of prostate	610	2,479	-	18	-	3	-	202	-	411	-	428	-	-	-	1,415	-	2	-
Complications of pregnancy, childbirth, and the puerperium	640-689	-	243	-	43	-	10	-	107	-	59	-	-	-	-	-	24	-	-
Congenital malformations	750-759	2,783	2,466	8	5	2	4	514	388	1,107	877	61	58	-	-	1,086	1,129	5	5
Birth injuries, postnatal asphyxia and atelectasis	760-762	2,705	1,753	16	6	3	3	174	111	1,489	945	1	1	-	-	1,018	684	4	3
Infections of the newborn	763-768	489	335	3	1	-	1	92	82	263	184	-	-	-	-	131	85	-	2
Other diseases peculiar to early infancy, and immaturity unqualified	769-776	2,406	1,727	10	3	-	1	61	34	690	446	1	2	-	-	1,638	1,228	6	13
Senility without mention of psychosis, ill-defined and unknown causes	780-795	2,173	4,092	28	35	14	6	21	60	24	24	2	-	-	-	2,061	3,946	23	21
All other diseases	Rem. 140-795	21,255	25,887	602	220	89	58	3,819	3,980	3,669	4,101	403	380	9	11	12,641	17,117	23	20
Motor vehicle accidents	E810-E835	4,589	1,762	3,803	1,484	767	275	10	2	-	-	1	-	-	-	1	-	7	1
All other accidents	E800-E802, E840-E962	5,990	6,253	4,250	3,917	1,363	1,755	157	193	44	33	4	31	-	-	149	312	23	12
Suicide and self-inflicted injury	E963, E970-E979	3,308	2,407	2,589	1,956	694	430	22	18	1	1	-	-	-	-	2	2	-	-
Homicide and operations of war	E964, E965, E980-E999	187	127	148	115	14	9	6	3	1	-	1	-	-	-	17	-	-	-

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At home, i.e. at the usual place of residence of the mother;

Other places of confinement which include all psychiatric institutions, homes for unmarried mothers, remand homes, reception centres, private houses (other than the mother's usual residence), etc.

A set of tables is available for reference at the General Register Office showing numbers of live and still births with a breakdown as in Tables C143 and C144 for individual county boroughs and administrative counties within England and Wales. A copy of these tables, or of a table for a particular area, can be obtained from the General Register Office on payment.

Table C142. Births by place of confinement, 1963, England and Wales

Place of confinement	Live births	Still births	Total births	Total births per cent by place of confinement*	Stillbirth rate per 1,000 total births*
N.H.S. hospital	553,287	12,781	566,068	65.1 (62.8)	22.6 (24.1)
Other hospital	26,449	195	26,644	3.1 (3.1)	7.3 (8.4)
At home	259,111	1,841	260,952	30.0 (32.1)	7.1 (7.7)
Other	15,208	172	15,380	1.8 (2.0)	11.2 (13.0)
Total	854,055	14,989	869,044	100.0	17.2 (18.1)

* The figures in brackets are the corresponding figures for 1962.

Deaths in institutions

Table C140 shows numbers of deaths analysed by cause and place of occurrence. The proportion of patients dying in mental hospitals, or other hospitals and institutions for the care of the sick, has increased gradually but consistently from 53 per cent in 1960 to 55.5 per cent in 1963.

Mortality analysis by method of certification

Table C141 shows numbers of deaths in 1963 from various causes according to whether the death was certified by a coroner or medical practitioner or was uncertified, and whether post mortem, operation or other examination was mentioned. In spite of the large increase in the number of deaths in 1963 the proportion in which a post mortem was held rose to 25.9 per cent as against 23.9 per cent in 1962.

Table C143. Live births by age and parity* of mother and place of confinement, 1963, England and Wales

Parity of mother	Place of confinement	Age of mother							
		All ages	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over
Total	N.H.S. hospital	553,287	56,068	179,465	156,753	92,625	50,050	17,311	1,015
	Other hospital	26,449	2,182	8,518	8,598	4,683	1,962	478	28
	At home	259,111	10,865	72,176	94,046	55,303	22,087	4,475	159
	Other	15,208	2,525	7,400	3,844	1,085	302	48	4
0	N.H.S. hospital	235,077	37,177	105,796	60,698	21,903	7,762	1,676	65
	Other hospital	9,483	1,239	4,489	2,747	772	198	37	1
	At home	34,227	5,519	17,618	9,061	1,690	285	53	1
	Other	5,173	1,057	3,118	887	96	11	4	-
1	N.H.S. hospital	133,255	5,641	41,977	47,882	25,037	10,135	2,490	93
	Other hospital	8,189	232	2,391	3,304	1,684	485	88	5
	At home	97,351	3,680	34,067	39,569	16,005	3,675	347	8
	Other	5,547	433	2,851	1,757	413	88	5	-
2	N.H.S. hospital	64,655	540	12,112	21,943	17,150	9,602	3,138	170
	Other hospital	3,970	16	689	1,423	1,149	575	112	6
	At home	63,067	419	13,192	25,631	17,083	5,911	811	20
	Other	1,644	22	590	677	270	70	14	1
3	N.H.S. hospital	32,213	25	3,436	9,598	9,686	6,675	2,655	138
	Other hospital	1,642	1	190	505	520	332	87	7
	At home	30,948	31	3,682	11,196	10,114	4,949	944	32
	Other	449	1	98	188	123	32	7	-
4	N.H.S. hospital	17,986	-	958	4,663	5,940	4,455	1,840	130
	Other hospital	600	-	41	177	217	120	42	3
	At home	13,196	2	775	4,040	4,726	2,926	701	26
	Other	161	-	21	65	42	29	3	1
5-9	N.H.S. hospital	22,975	1	237	3,549	7,605	7,612	3,684	287
	Other hospital	547	-	8	111	184	163	77	4
	At home	10,865	1	145	2,091	4,007	3,359	1,212	50
	Other	125	-	7	31	46	36	5	-
10-14	N.H.S. hospital	1,216	-	-	8	173	551	436	48
	Other hospital	14	-	-	-	3	5	6	-
	At home	327	-	-	5	52	153	108	9
	Other	3	-	-	-	1	1	1	-
15 and over	N.H.S. hospital	39	-	1	-	-	13	23	2
	Other hospital	1	-	-	-	-	-	1	-
	At home	5	-	-	-	-	1	4	-
	Other	1	-	-	-	-	-	1	-
Illegitimate	N.H.S. hospital	45,871	12,684	14,948	8,412	5,131	3,245	1,369	82
	Other hospital	2,003	694	710	331	154	84	28	2
	At home	9,125	1,213	2,697	2,453	1,626	828	295	13
	Other	2,105	1,012	715	239	94	35	8	2

*Parity in this instance means the number of previous liveborn children.

Table C144. Stillbirths by age and parity* of mother and place of confinement, 1963, England and Wales

Parity of mother	Place of confinement	Age of mother							
		All ages	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over
Total	N.H.S. hospital	12,781	954	3,258	3,418	2,608	1,748	749	46
	Other hospital	195	13	48	62	36	28	8	-
	At home	1,841	105	395	520	409	280	127	5
	Other	172	20	52	61	28	7	3	1
0	N.H.S. hospital	4,921	615	1,964	1,367	625	282	65	3
	Other hospital	86	8	25	23	7	2	1	-
	At home	306	57	126	80	30	10	3	-
	Other	52	6	27	3	15	1	-	-
1	N.H.S. hospital	2,577	76	661	852	584	307	91	6
	Other hospital	48	1	14	18	8	6	1	-
	At home	461	11	130	177	93	35	15	-
	Other	29	6	11	7	5	-	-	-
2	N.H.S. hospital	1,777	10	250	529	522	338	123	5
	Other hospital	28	-	2	11	8	6	1	-
	At home	374	1	70	123	103	59	18	-
	Other	17	1	4	3	3	3	2	1
3	N.H.S. hospital	1,010	-	79	250	299	253	120	9
	Other hospital	16	-	-	5	6	4	1	-
	At home	232	-	29	53	72	54	22	2
	Other	8	-	1	3	2	2	-	-
4	N.H.S. hospital	605	-	18	132	186	167	95	7
	Other hospital	10	-	-	1	3	5	1	-
	At home	148	-	9	33	41	49	15	1
	Other	1	-	-	-	-	-	1	-
5-9	N.H.S. hospital	820	-	4	100	251	288	168	9
	Other hospital	4	-	-	1	2	1	-	-
	At home	168	-	-	18	52	57	40	1
	Other	2	-	-	-	1	1	-	-
10-14	N.H.S. hospital	59	-	-	-	9	24	21	5
	Other hospital	-	-	-	-	-	-	-	-
	At home	13	-	-	-	1	6	6	-
	Other	-	-	-	-	-	-	-	-
15 and over	N.H.S. hospital	1	-	-	-	-	-	1	-
	Other hospital	-	-	-	-	-	-	-	-
	At home	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
Illegitimate	N.H.S. hospital	1,011	253	282	188	132	89	65	2
	Other hospital	23	4	7	3	2	4	3	-
	At home	139	36	31	36	17	10	8	1
	Other	63	7	9	45	2	-	-	-

*Parity in this instance means the number of previous liveborn children.

Table C145. Percentage distribution of births for each place of confinement within each age and parity* group, 1963, England and Wales

Parity of mother	Place of confinement	Age of mother							
		All ages	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over
Total	N.H.S. hospital	65	79	67	60	61	68	78	85
	Other hospital	3	3	3	3	3	3	2	2
	At home	30	15	27	36	35	29	20	13
	Other	2	3	3	1	1	0	0	0
0	N.H.S. hospital	83	83	81	83	90	95	95	98
	Other hospital	3	3	3	4	3	2	2	1
	At home	12	12	14	12	7	3	3	1
	Other	2	2	2	1	0	0	0	-
1	N.H.S. hospital	55	57	52	52	58	71	85	89
	Other hospital	3	2	3	4	4	3	3	4
	At home	40	37	42	42	37	25	12	7
	Other	2	4	3	2	1	1	0	-
2	N.H.S. hospital	49	54	46	45	49	60	77	86
	Other hospital	3	2	3	3	3	4	3	3
	At home	47	42	49	51	47	36	20	10
	Other	1	2	2	1	1	0	0	1
3	N.H.S. hospital	50	43	47	45	48	56	73	78
	Other hospital	2	2	3	2	3	3	2	4
	At home	47	53	49	52	48	41	25	18
	Other	1	2	1	1	1	0	0	-
4	N.H.S. hospital	57	-	54	52	55	60	71	81
	Other hospital	2	-	2	2	2	2	2	2
	At home	41	100	43	45	43	38	27	16
	Other	0	-	1	1	0	0	0	1
5-9	N.H.S. hospital	67	50	60	61	65	69	75	84
	Other hospital	2	-	2	2	2	1	1	1
	At home	31	50	36	36	33	30	24	15
	Other	0	-	2	1	0	0	0	-
10-14	N.H.S. hospital	78	-	-	62	77	78	79	85
	Other hospital	1	-	-	-	1	1	1	-
	At home	21	-	-	38	22	21	20	15
	Other	0	-	-	-	0	0	0	-
15 and over	N.H.S. hospital	85	-	100	-	-	93	80	100
	Other hospital	2	-	-	-	-	-	3	-
	At home	11	-	-	-	-	7	14	-
	Other	2	-	-	-	-	-	3	-
Illegitimate	N.H.S. hospital	78	82	78	74	74	77	81	82
	Other hospital	3	4	4	3	2	2	2	2
	At home	15	8	14	21	23	20	17	14
	Other	4	6	4	2	1	1	0	2

*Parity in this instance means the number of previous liveborn children.

Table C146. Stillbirth rates per 1,000 total births by age and parity* of mother and place of confinement, 1963, England and Wales

Parity of mother	Place of confinement	Age of mother							
		All ages	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over
Total	N.H.S. hospital	23	17	18	21	27	34	41	43
	Other hospital	7	6	6	7	8	14	16	-
	At home	7	10	5	5	7	13	28	30
	Other	11	8	7	16	25	23	59	200
0	N.H.S. hospital	21	16	18	22	28	35	37	44
	Other hospital	7	6	6	8	9	10	26	-
	At home	9	10	7	9	17	34	54	-
	Other	10	6	9	3	135	83	-	-
1	N.H.S. hospital	19	13	16	17	23	29	35	61
	Other hospital	6	4	6	5	5	12	11	-
	At home	5	3	4	4	6	9	41	-
	Other	5	14	4	4	12	-	-	-
2	N.H.S. hospital	27	18	20	24	30	34	38	29
	Other hospital	7	-	3	8	7	10	9	-
	At home	6	2	5	5	6	10	22	-
	Other	10	43	7	4	11	41	125	500
3	N.H.S. hospital	30	-	22	25	30	37	43	61
	Other hospital	10	-	-	10	11	12	11	-
	At home	7	-	8	5	7	11	23	59
	Other	18	-	10	16	16	59	-	-
4	N.H.S. hospital	33	-	18	28	30	36	49	51
	Other hospital	16	-	-	6	14	40	23	-
	At home	11	-	11	8	9	16	21	37
	Other	6	-	-	-	-	-	250	-
5-9	N.H.S. hospital	34	-	17	27	32	36	44	30
	Other hospital	7	-	-	9	11	6	-	-
	At home	15	-	-	9	13	17	32	20
	Other	16	-	-	-	21	27	-	-
10-14	N.H.S. hospital	46	-	-	-	49	42	46	94
	Other hospital	-	-	-	-	-	-	-	-
	At home	38	-	-	-	19	38	53	-
	Other	-	-	-	-	-	-	-	-
15 and over	N.H.S. hospital	25	-	-	-	-	-	42	-
	Other hospital	-	-	-	-	-	-	-	-
	At home	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-
Illegitimate	N.H.S. hospital	22	20	19	22	25	27	45	24
	Other hospital	11	6	10	9	13	45	97	-
	At home	15	29	11	14	10	12	26	71
	Other	29	7	12	158	21	-	-	-

*Parity in this instance means the number of previous liveborn children.

Table C147. Stillbirth rates per 1,000 total births, by parity* of mother and place of confinement, 1963, England and Wales, hospital regions

Parity of mother	Place of confinement	England and Wales	Hospital regions														
			Newcastle	Leeds	Sheffield	East Anglia	North West Metropolitan	North East Metropolitan	South East Metropolitan	South West Metropolitan	Oxford	South Western	Welsh	Birmingham	Manchester	Liverpool	Wessex
Total	N.H.S. hospital	23	25	22	26	26	20	21	21	16	21	21	24	26	25	25	23
	Other hospital	7	9	7	9	11	5	5	12	9	6	7	3	4	7	6	
	At home	7	10	7	7	8	5	6	6	6	5	6	9	8	8	7	7
	Other	11	4	12	7	5	17	19	19	28	17	7	11	13	9	27	3
	Total	17	19	17	18	17	15	16	16	13	15	16	20	19	19	20	16
0	N.H.S. hospital	21	21	19	22	25	18	18	20	14	18	20	24	24	22	23	20
	Other hospital	7	10	7	6	9	7	6	8	8	7	7	12	4	6	7	4
	At home	9	13	5	9	8	6	8	8	7	7	9	10	11	11	10	6
	Other	10	2	12	5	2	13	35	18	22	33	10	6	20	-	-	4
	Total	18	20	17	19	18	17	17	19	13	16	18	22	22	20	22	16
1	N.H.S. hospital	19	22	18	22	24	17	18	17	12	20	18	21	21	20	18	22
	Other hospital	6	6	-	11	8	5	3	3	8	3	4	3	3	4	7	7
	At home	5	7	5	5	6	2	3	5	5	4	4	6	4	5	5	6
	Other	5	4	7	7	6	-	9	6	6	-	5	9	2	8	5	-
	Total	13	16	13	13	13	11	11	11	10	12	12	16	12	14	13	14
2	N.H.S. hospital	27	30	26	32	32	24	30	24	15	24	21	23	33	28	31	29
	Other hospital	7	4	8	7	15	5	7	20	11	8	-	-	-	4	-	3
	At home	6	9	7	7	7	4	5	4	5	3	5	9	7	6	4	5
	Other	10	9	-	5	10	58	-	11	26	23	9	6	6	-	46	-
	Total	16	19	17	17	16	15	17	14	11	14	13	17	18	17	19	16
3	N.H.S. hospital	30	35	30	36	47	25	29	30	20	20	27	26	32	37	32	32
	Other hospital	10	9	22	-	10	6	20	27	8	5	23	-	-	-	33	16
	At home	7	11	7	6	9	8	10	8	4	6	6	5	9	7	6	5
	Other	18	13	26	22	-	-	-	59	-	-	29	-	-	56	56	-
	Total	19	22	20	19	22	17	20	19	12	13	18	17	20	22	20	19
4	N.H.S. hospital	33	40	34	41	20	21	29	24	31	25	20	33	32	47	41	28
	Other hospital	16	-	-	57	23	-	-	67	21	-	-	-	-	-	-	21
	At home	11	11	8	11	12	15	8	3	6	7	15	18	10	14	14	12
	Other	6	-	-	-	-	-	-	-	-	-	-	71	-	-	-	-
	Total	23	25	24	27	16	18	20	16	23	18	18	27	21	32	29	21
5-9	N.H.S. hospital	34	36	34	41	33	28	38	35	35	42	29	33	35	40	30	15
	Other hospital	7	17	250	19	-	-	-	-	-	-	-	-	-	-	-	-
	At home	15	14	25	16	18	30	4	2	3	14	13	25	12	15	14	28
	Other	16	-	-	62	-	-	-	-	-	-	-	-	56	-	-	-
	Total	28	27	32	32	25	28	29	25	27	33	24	30	26	31	24	19
10-14	N.H.S. hospital	46	88	74	65	-	42	32	28	65	-	34	39	36	29	54	37
	Other hospital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	At home	38	36	59	62	-	-	91	-	-	-	45	-	94	-	29	-
	Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total	44	73	72	65	-	35	41	22	55	-	37	27	48	23	47	25
15 and over	N.H.S. hospital	25	-	-	-	-	-	-	-	-	-	-	-	-	250	-	-
	Other hospital	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	At home	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total	21	-	-	-	-	-	-	-	-	-	-	-	-	167	-	-
Illegitimate	N.H.S. hospital	22	20	19	24	16	20	19	22	19	20	21	30	21	24	29	24
	Other hospital	11	18	-	22	33	-	-	24	11	24	19	20	-	4	11	12
	At home	15	16	14	12	10	20	13	20	17	29	12	24	14	11	15	17
	Other	29	-	45	15	20	23	30	45	48	17	-	68	29	30	162	9
	Total	20	19	18	21	15	20	18	22	20	21	30	20	20	28	22	

*Parity in this instance means the number of previous liveborn children.

UNITED KINGDOM

Vital Statistics

The vital statistics of the United Kingdom were discussed in Part III of the Registrar General's Statistical Review of England and Wales for the year 1962. The following Table C148 advances by one year the figures in Table CLV on page 288 of that volume. Further comment will be deferred until a later year.

Table C148. Vital Statistics: 1938 and 1946 to 1963, United Kingdom

	United Kingdom	England	Wales	Scotland	Northern Ireland
Estimated mid-year home population (in thousands)					
1963	53,674	44,361	2,862	5,205	1,446
1963	26,036	21,522	1,310	2,499	705
1963	27,637	22,839	1,552	2,705	741
1963	53,674	44,361	2,862	5,205	1,446
Marriages(1)					
1963	401,142	331,861	19,468	39,658	10,155
Persons marrying per 1,000 living					
1938	17.2	17.6	16.2	15.5	13.4
1946-50	17.5	17.7	17.4	16.9	13.9
1951-55	15.9	15.9	15.7	16.3	13.5
1956-60	15.3	15.3	15.0	16.2	13.5
1961	15.0	15.0	14.9	15.7	13.8
1962	14.9	14.9	14.6	15.5	13.7
1963	14.9	15.0	14.6	15.2	14.0
Live births (1)(2)					
1963	990,160	807,017	47,038	102,691	33,414
Per 1,000 living					
1938	15.5	15.1	15.3	17.7	20.0
1946-50	18.3	18.0	17.9	19.8	22.0
1951-55	15.7	15.3	15.7	17.9	20.8
1956-60	16.8	16.4	16.2	19.2	21.7
1961	17.9	17.6	17.1	19.5	22.4
1962	18.3	18.0	17.1	20.1	22.7
1963	18.4	18.2	17.7	19.7	23.1
Deaths (3)					
1963	654,288	538,105	34,763	65,521	15,899
Per 1,000 living					
1931-38(4)	12.2	12.0	12.9	13.2	14.4
1946-50	11.6	11.4	12.6	12.3	11.8
1951-55	11.7	11.3	12.7	12.1	11.3
1956-60	11.6	11.5	12.4	12.0	10.8
1961	12.0	11.9	12.8	12.3	11.3
1962	11.9	11.9	12.7	12.2	10.6
1963	12.2	12.1	13.1	12.6	11.0
Infant mortality (deaths of infants under one year of age)(5)					
1963	21,569	16,886	1,156	2,624	902
Per 1,000 live births					
1938	56	53	57	70	75
1946-50	38	36	42	47	48
1951-55	28	27	33	33	37
1956-60	23	22	27	28	28
1961	22	21	24	26	27
1962	22	22	25	27	27
1963	22	21	25	26	27

(1) The marriage and birth rates for 1938 and from 1951 are based on home population, but the 1946-50 aggregates are based on total population.
 (2) England and Wales: occurrences. Remainder: registrations.
 (3) The death rates are based on total deaths and home populations, except that the 1946-49 element in the 1946-50 aggregate is based on civilian deaths and civilian populations.
 (4) Here the 1931-38 aggregate is given, since crude death rates in the year 1938 were rather lower than in adjacent years.
 (5) England and Wales: for 1957 onwards based on deaths per thousand live birth occurrences; for earlier years based on deaths per thousand related live births. Remainder: based on deaths per thousand births registered.

PARLIAMENTARY AND LOCAL GOVERNMENT ELECTORS

The statistics of parliamentary and local government electors were discussed in Part III of the Registrar General's Statistical Review of England and Wales for the year 1961. The following tables advance by two years the figures given in Tables CLIII, CLIV and CLVI to CLVIII on pages 316-323 of that volume and Tables CLVI to CLXI on pages 290-294 in the corresponding 1962 volume. The percentages which the total parliamentary electorate represented of the estimated total population in the years 1958 to 1963 were:

1958	1959	1960	1961	1962	1963
68.1	67.8	67.5	67.0	66.6	66.2

Table C149. Parliamentary and local government electors, 1958 to 1963, England and Wales

Register (qualifying date in brackets)	Parliamentary Register				Local Government Register
	Total at qualifying date	Services Register (included in col. 2)	Young Electors (not included in cols. 2 and 3)		
			Total	Services (included in col. 4)	
1	2	3	4	5	6
1958 (10th Oct. 1957)	30,795,834	283,383	250,464	26,707	30,914,568
1959 (10th Oct. 1958)	30,850,124	274,628	258,688	24,129	30,969,488
1960 (10th Oct. 1959)	30,974,254	279,936	245,464	25,435	31,096,735
1961 (10th Oct. 1960)	31,020,479	278,100	250,557	6,466	31,144,715
1962 (10th Oct. 1961)	31,153,107	229,022	240,636	5,903	31,278,504
1963 (10th Oct. 1962)	31,216,583	197,394	271,663	6,726	31,343,549

Table C150. Parliamentary constituencies by size, distinguishing county and borough constituencies, 1960 and 1963, England and Wales

England				
Total number of electors at qualifying date	Number of constituencies			
	1960		1963	
	County	Borough	County	Borough
30,000	-	-	-	1
35,000	1	10	2	12
40,000	19	11	17	19
45,000	28	45	23	49
50,000	44	71	36	66
55,000	48	62	48	57
60,000	34	39	26	34
65,000	26	25	32	24
70,000	14	22	18	19
75,000	5	1	11	4
80,000 and over	3	3	9	4
Total	222	289	222	289

Wales				
Total number of electors at qualifying date	Number of constituencies			
	1960		1963	
	County	Borough	County	Borough
Under 30,000	1	-	1	-
30,000	1	1	1	1
35,000	4	1	4	1
40,000	2	1	2	1
45,000	5	1	5	1
50,000	6	-	5	-
55,000	3	4	4	3
60,000	3	1	3	2
65,000	1	1	1	1
70,000	-	-	-	-
75,000 and over	-	-	-	-
Total	26	10	26	10

Table C151. Local government elections. Percentage of electorate voting in contested elections in urban areas, 1963

Electorate at qualifying date	Percentage of electorate voting												Contested elections			
	Under 25	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75 and over	Total urban areas	Total electorate	Electorate voting	Percentage of electorate voting
County boroughs																
Under 5,000	-	-	1	2	6	5	2	3	-	-	-	-	19	727,376	338,190	46.5
5,000-	-	1	2	1	2	4	5	1	-	-	-	-	16	809,426	373,926	46.2
70,000-	-	-	1	6	5	5	4	-	-	-	-	-	21	1,455,234	636,545	43.7
100,000-	-	-	2	3	9	4	-	-	-	-	-	-	18	2,490,426	1,025,609	41.2
200,000 and over	-	-	1	5	2	-	-	-	-	-	-	-	8	2,953,504	1,111,796	37.6
Total	-	1	7	17	24	18	11	4	-	-	-	-	82	8,435,966	3,486,066	41.3
Municipal boroughs and urban districts																
Under 5,000	2	5	2	7	21	24	26	19	15	5	14	3	143	409,643	208,944	51.0
5,000-	1	4	5	8	20	17	33	25	19	7	2	-	141	814,593	412,119	50.6
10,000-	4	2	6	16	19	39	37	28	15	2	-	-	168	1,835,023	898,455	49.0
20,000-	1	3	11	13	32	49	38	16	4	-	-	-	167	4,500,749	2,092,712	46.5
50,000 and over	1	3	7	5	6	12	5	-	1	-	-	-	40	2,773,860	1,157,930	41.7
Total	9	17	31	49	98	141	139	88	54	14	16	3	659	10,333,868	4,770,160	46.2

Table C152. Local government elections. Percentage of electorate voting in contested rural district elections, 1963, England and Wales and standard regions

Area	Percentage of electorate voting													Contested elections			
	Under 25	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75 and over	Total rural districts	Total electorate	Electorate voting	Percentage of electorate voting	
England and Wales	6	10	6	12	11	20	9	8	4	7	5	4	102	348,049	143,662	41.3	
England	6	10	6	12	11	20	8	8	4	7	4	4	100	346,028	142,510	41.2	
Wales	-	-	-	-	-	-	1	-	-	-	1	-	2	2,021	1,152	57.0	
Standard regions:																	
Northern	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
East and West Ridings	-	-	-	-	-	-	1	-	-	2	-	-	3	5,790	3,074	53.1	
North Western	-	-	1	-	1	1	1	-	-	1	-	-	5	24,127	9,645	40.0	
North Midland*	1	1	-	-	2	3	1	2	1	-	1	2	14	48,203	22,502	46.7	
Midland	1	-	1	1	-	1	-	1	1	-	3	-	9	31,967	10,766	33.7	
Eastern†	1	2	-	1	3	1	2	2	-	2	-	-	14	39,464	16,119	40.8	
London and South Eastern	2	3	2	5	1	7	1	-	1	-	-	-	22	116,769	48,490	41.5	
Southern	-	3	2	3	3	6	2	2	-	1	-	-	22	57,295	24,529	42.8	
South Western ‡	1	1	-	2	1	1	-	1	1	1	-	2	11	22,413	7,385	32.9	
Wales I (South East)	-	-	-	-	-	-	1	-	-	-	-	-	1	1,421	723	50.9	
Wales II (remainder)	-	-	-	-	-	-	-	-	-	-	1	-	1	600	429	71.5	

*Includes the whole of Derbyshire.

†Includes the whole of Essex and Hertfordshire.

‡Includes the whole of Dorset.

Table C153. Local government elections. Percentage of electorate voting in contested elections, 1955 to 1963, England and Wales

District	1955	1956	1957	1958	1959	1960	1961	1962	1963
Administrative counties	36.5	-	-	33.3	-	-	35.7	-	-
County boroughs	43.8	37.6	40.0	40.3	41.0	35.4	40.6	40.2	41.3
Other boroughs and urban districts	45.0	39.4	44.1	42.9	42.1	40.4	42.3	42.9	46.2
Rural districts	48.2	41.3	45.2	46.2	42.1	37.5	45.0	41.5	41.3
Total	41.6	38.7	42.2	38.6	41.6	38.0	39.5	41.8	43.9

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