

THE RECENT TREND OF MORTALITY IN THE UNITED KINGDOM

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ABSTRACT

This note continues a regular series on mortality rates, previously relating to Great Britain, but now to the whole of the United Kingdom. Mortality experienced in the years 1990 to 1992 is shown by five-year age groups, and comparisons are made for broad age groups, on a standardised basis, with mortality in earlier years.

KEYWORD

Mortality

This note continues a series on mortality rates in Great Britain; the previous note in the series appeared in *J.I.A.* 119, 561 and dealt with mortality in 1990.

Following the 1991 Census, revisions have been made to the mid-year population estimates between 1982 and 1990. It has also been decided to switch from Great Britain to the United Kingdom as the basis for investigation, by including Northern Ireland in the numbers of deaths and the population estimates.

This note presents details of the mortality experiences in the years 1990 to 1992, together with a comparison with earlier years. The rates have been calculated using the deaths recorded as occurring in the U.K. each year and the resident population at 30 June of each year, as estimated by the Registrars General of England and Wales, Scotland, and Northern Ireland.

Table 1 shows central death rates for the U.K. for the years 1990 to 1992, together with the ratios of these rates to the corresponding average rates for the 3 years in combination, which have replaced those of 1980-82 used in previous articles as a standard. To minimise the effect of changes in the age distribution of the population exposed-to-risk, the death rates for age groups have been calculated, and the comparison with the 1990-92 mortality rates has been made, by standardising by individual ages on the age distribution of the U.K. population at the 1991 Census.

The overall pattern of mortality changes over the last 60 years was set out (for Great Britain) in previous articles, by reference to standardised group death rates, and ratios to the then 1980-82 standard, for a few broad age groups. In this article the comparisons have been restricted to the period since 1970; Tables 2 and 3 show respectively the death rates and the ratios to the 1990-92 standard by six age groups: under age 1 (infants), 1-14 (children), 15-44 (younger adults), 45-64 (the middle aged), 65-79 (the younger elderly) and 80 and over

Table 1(a). Death Rates for Age Groups in the United Kingdom in 1990 and the Ratios of those Rates to the Rates for 1990–92

Age group	Death rates in 1990		Ratios to 1990–92 rates	
	Males	Females	Males	Females
Under 1	0.00910	0.00703	1.105	1.107
1–4	0.00043	0.00032	1.091	1.012
5–9	0.00020	0.00014	1.021	0.962
10–14	0.00023	0.00016	1.042	1.096
15–19	0.00073	0.00028	1.050	0.976
20–24	0.00094	0.00031	1.050	0.964
25–29	0.00094	0.00038	1.050	1.022
30–34	0.00101	0.00052	1.001	0.992
35–39	0.00142	0.00089	0.996	1.039
40–44	0.00210	0.00137	1.003	1.022
45–49	0.00359	0.00230	1.034	1.025
50–54	0.00615	0.00376	1.019	1.017
55–59	0.01071	0.00644	1.032	1.041
60–64	0.01886	0.01104	1.033	1.039
65–69	0.03198	0.01771	1.028	1.013
70–74	0.04916	0.02739	1.014	0.999
75–79	0.07898	0.04575	1.021	1.007
80–84	0.12069	0.07707	1.013	1.016
85–89	0.18035	0.12491	1.008	1.009
90 & over	0.27256	0.22307	0.998	1.010
All ages:				
Crude	0.01119	0.01119	1.011	1.002
Standardised*	0.01129	0.01132	1.020	1.013

* Standardised on 1991 Census age distribution.

(the elderly). The ratios of standardised group death rates to the 1990–92 standard are shown graphically in Figures 1 and 2 for these broad age groups.

Mortality overall (standardised by age groups) was about 3% lower in 1992 than in 1991, which itself was about 1% lower than in 1990. It is now some 20% lower for males, and 18% lower for females, than in 1980. Mortality was higher in 1992 than the 1990–92 average for men in the 30–34 age group and for women in the 20–24 and 40–44 age groups, and was the same as the 1990–92 average for men aged 35–39. It is at these younger adult ages where mortality has not been improving markedly, or has even been worsening, in recent years; this is partly, but not entirely, due to deaths from AIDS.

Comparing the most recent 3 years with the earliest 3 years in Tables 2 and 3, i.e. 1990–92 with 1970–72, the average level of mortality fell by about 25% for males and 23% for females. Infant mortality fell by nearly 60% between these two periods and the mortality of children between 1 and 15 years old fell by nearly 50%. At ages 15–44 the average fall was 17% for men and 29% for women, and at 45–64 the fall was 32% for men and 23% for women. At ages 65–79 the fall was about 20% overall, while at 80 and over it approached 25%.

Table 1(b). Death Rates for Age Groups in the United Kingdom in 1991 and the Ratios of those Rates to the Rates for 1990–92

Age group	Death rates in 1991		Ratios to 1990–92 rates	
	Males	Females	Males	Females
Under 1	0·00830	0·00632	1·007	0·995
1–4	0·00040	0·00034	1·021	1·060
5–9	0·00021	0·00016	1·064	1·092
10–14	0·00022	0·00015	1·024	1·030
15–19	0·00074	0·00030	1·053	1·028
20–24	0·00089	0·00033	0·995	1·028
25–29	0·00087	0·00037	0·972	0·997
30–34	0·00100	0·00053	0·997	1·016
35–39	0·00143	0·00083	1·005	0·975
40–44	0·00210	0·00130	1·006	0·972
45–49	0·00350	0·00228	1·010	1·013
50–54	0·00610	0·00370	1·011	1·001
55–59	0·01037	0·00614	0·999	0·992
60–64	0·01819	0·01059	0·996	0·996
65–69	0·03113	0·01758	1·000	1·006
70–74	0·04876	0·02763	1·005	1·008
75–79	0·07765	0·04587	1·004	1·009
80–84	0·12027	0·07621	1·009	1·005
85–89	0·18171	0·12534	1·016	1·012
90 & over	0·27712	0·22651	1·015	1·026
All ages:				
Crude	0·01114	0·01128	1·006	1·010
Standardised*	0·01114	0·01128	1·006	1·009

* Standardised on 1991 Census age distribution.

Table 1(c). Death Rates for Age Groups in the United Kingdom in 1992 and the Ratios of those Rates to the Rates for 1990-92

Age group	Death rates in 1992		Ratios to 1990-92 rates	
	Males	Females	Males	Females
Under 1	0.00732	0.00570	0.889	0.898
1-4	0.00035	0.00030	0.888	0.928
5-9	0.00018	0.00014	0.920	0.948
10-14	0.00020	0.00013	0.934	0.874
15-19	0.00063	0.00029	0.897	0.996
20-24	0.00086	0.00033	0.955	1.009
25-29	0.00087	0.00037	0.978	0.980
30-34	0.00101	0.00052	1.002	0.992
35-39	0.00142	0.00084	1.000	0.986
40-44	0.00207	0.00135	0.992	1.006
45-49	0.00331	0.00216	0.956	0.962
50-54	0.00585	0.00363	0.970	0.983
55-59	0.01006	0.00598	0.969	0.966
60-64	0.01773	0.01026	0.971	0.965
65-69	0.03025	0.01717	0.972	0.982
70-74	0.04760	0.02719	0.981	0.992
75-79	0.07536	0.04472	0.975	0.984
80-84	0.11660	0.07424	0.978	0.979
85-89	0.17458	0.12116	0.976	0.979
90 & over	0.26939	0.21296	0.987	0.964
All ages:				
Crude	0.01088	0.01104	0.983	0.988
Standardised*	0.01079	0.01093	0.974	0.978

* Standardised on 1991 Census age distribution.

Table 2. Death Rates for age groups in the United Kingdom, Standardised on 1991 Census Age Distribution

Year	Under 1	1-14	15-44	45-64	65-79	80 & over	All ages
Males							
1970	0.02100	0.00051	0.00141	0.01358	0.06514	0.17619	0.01489
1971	0.01970	0.00051	0.00139	0.01317	0.06257	0.17451	0.01446
1972	0.01900	0.00050	0.00137	0.01344	0.06542	0.18133	0.01495
1973	0.01845	0.00049	0.00140	0.01315	0.06356	0.17922	0.01465
1974	0.01859	0.00046	0.00135	0.01295	0.06265	0.17840	0.01446
1975	0.01714	0.00045	0.00132	0.01272	0.06207	0.17800	0.01430
1976	0.01616	0.00043	0.00131	0.01281	0.06266	0.18325	0.01448
1977	0.01565	0.00040	0.00127	0.01236	0.06002	0.17101	0.01380
1978	0.01539	0.00041	0.00131	0.01244	0.06037	0.17233	0.01390
1979	0.01483	0.00038	0.00128	0.01235	0.05978	0.17451	0.01384
1980	0.01373	0.00038	0.00127	0.01225	0.05823	0.17059	0.01354
1981	0.01274	0.00036	0.00124	0.01191	0.05694	0.16861	0.01325
1982	0.01246	0.00034	0.00121	0.01164	0.05663	0.16879	0.01315
1983	0.01154	0.00033	0.00118	0.01144	0.05589	0.16616	0.01294
1984	0.01094	0.00033	0.00115	0.01100	0.05392	0.15905	0.01245
1985	0.01054	0.00033	0.00114	0.01098	0.05499	0.16566	0.01270
1986	0.01098	0.00029	0.00115	0.01074	0.05368	0.15992	0.01238
1987	0.01059	0.00029	0.00115	0.01031	0.05166	0.15133	0.01187
1988	0.01030	0.00031	0.00116	0.01009	0.05085	0.15135	0.01174
1989	0.00963	0.00029	0.00114	0.00966	0.05032	0.15380	0.01163
1990	0.00910	0.00028	0.00118	0.00938	0.04900	0.14764	0.01129
1991	0.00830	0.00027	0.00116	0.00911	0.04818	0.14806	0.01114
1992	0.00732	0.00024	0.00113	0.00881	0.04687	0.14318	0.01079
Females							
1970	0.01614	0.00037	0.00088	0.00718	0.03743	0.14426	0.01470
1971	0.01507	0.00038	0.00086	0.00706	0.03583	0.14136	0.01429
1972	0.01472	0.00039	0.00086	0.00724	0.03713	0.14583	0.01473
1973	0.01435	0.00035	0.00085	0.00705	0.03646	0.14538	0.01456
1974	0.01392	0.00035	0.00082	0.00708	0.03572	0.14280	0.01431
1975	0.01359	0.00031	0.00083	0.00696	0.03486	0.14123	0.01408
1976	0.01212	0.00030	0.00080	0.00704	0.03548	0.14677	0.01444
1977	0.01219	0.00030	0.00077	0.00681	0.03374	0.13658	0.01362
1978	0.01215	0.00032	0.00081	0.00684	0.03371	0.13555	0.01358
1979	0.01146	0.00029	0.00076	0.00690	0.03377	0.13624	0.01360
1980	0.01098	0.00028	0.00075	0.00683	0.03303	0.13260	0.01329
1981	0.00947	0.00027	0.00072	0.00670	0.03241	0.13119	0.01307
1982	0.00950	0.00025	0.00070	0.00667	0.03244	0.13074	0.01303
1983	0.00893	0.00025	0.00068	0.00652	0.03168	0.12783	0.01273
1984	0.00859	0.00024	0.00067	0.00637	0.03086	0.12155	0.01225
1985	0.00836	0.00025	0.00066	0.00641	0.03161	0.12696	0.01264
1986	0.00808	0.00024	0.00065	0.00617	0.03092	0.12239	0.01225
1987	0.00805	0.00023	0.00064	0.00613	0.03006	0.11561	0.01177
1988	0.00774	0.00022	0.00065	0.00597	0.02992	0.11613	0.01174
1989	0.00733	0.00022	0.00064	0.00588	0.03011	0.11708	0.01179
1990	0.00703	0.00020	0.00062	0.00572	0.02902	0.11190	0.01132
1991	0.00632	0.00021	0.00061	0.00552	0.02909	0.11203	0.01128
1992	0.00570	0.00018	0.00061	0.00535	0.02845	0.10779	0.01093

Table 3. Ratio of Death Rates for Age Groups in the United Kingdom to the Rates for 1990-92, Standardised on 1991 Census Age Distribution

Year	Under 1	1-14	15-44	45-64	65-79	80 & over	All ages
Males							
1970	2.548	1.924	1.217	1.493	1.357	1.204	1.344
1971	2.391	1.954	1.203	1.447	1.303	1.193	1.306
1972	2.306	1.913	1.187	1.477	1.362	1.239	1.351
1973	2.239	1.874	1.208	1.445	1.324	1.225	1.323
1974	2.256	1.743	1.168	1.423	1.305	1.219	1.306
1975	2.080	1.695	1.137	1.397	1.293	1.217	1.292
1976	1.961	1.618	1.135	1.408	1.305	1.253	1.308
1977	1.899	1.516	1.100	1.359	1.250	1.169	1.246
1978	1.868	1.549	1.131	1.367	1.257	1.178	1.255
1979	1.799	1.453	1.109	1.357	1.245	1.193	1.250
1980	1.666	1.434	1.096	1.346	1.213	1.166	1.223
1981	1.546	1.368	1.069	1.309	1.186	1.153	1.197
1982	1.512	1.305	1.045	1.279	1.179	1.154	1.188
1983	1.400	1.269	1.021	1.257	1.164	1.136	1.169
1984	1.328	1.254	0.997	1.209	1.123	1.087	1.124
1985	1.279	1.243	0.987	1.207	1.145	1.132	1.147
1986	1.333	1.089	0.991	1.180	1.118	1.093	1.118
1987	1.285	1.103	0.992	1.133	1.076	1.034	1.072
1988	1.250	1.159	1.003	1.109	1.059	1.035	1.060
1989	1.169	1.108	0.987	1.062	1.048	1.051	1.050
1990	1.105	1.058	1.019	1.030	1.020	1.009	1.020
1991	1.007	1.032	1.004	1.001	1.003	1.012	1.006
1992	0.889	0.910	0.978	0.968	0.976	0.979	0.974
Females							
1970	2.542	1.865	1.432	1.298	1.297	1.305	1.315
1971	2.374	1.896	1.407	1.278	1.242	1.278	1.278
1972	2.318	1.954	1.403	1.310	1.287	1.319	1.318
1973	2.260	1.757	1.382	1.275	1.264	1.315	1.303
1974	2.192	1.759	1.337	1.280	1.238	1.291	1.281
1975	2.140	1.565	1.347	1.260	1.208	1.277	1.260
1976	1.908	1.514	1.312	1.274	1.230	1.327	1.292
1977	1.920	1.494	1.263	1.232	1.169	1.235	1.218
1978	1.913	1.595	1.313	1.238	1.168	1.226	1.215
1979	1.805	1.445	1.232	1.247	1.171	1.232	1.217
1980	1.729	1.424	1.229	1.235	1.145	1.199	1.189
1981	1.491	1.359	1.166	1.212	1.123	1.186	1.169
1982	1.496	1.269	1.145	1.206	1.124	1.182	1.166
1983	1.406	1.278	1.108	1.179	1.098	1.156	1.139
1984	1.353	1.213	1.087	1.152	1.070	1.099	1.096
1985	1.317	1.256	1.074	1.159	1.096	1.148	1.131
1986	1.272	1.181	1.056	1.116	1.072	1.107	1.096
1987	1.268	1.141	1.043	1.109	1.042	1.046	1.053
1988	1.219	1.101	1.055	1.080	1.037	1.050	1.050
1989	1.154	1.117	1.043	1.064	1.044	1.059	1.055
1990	1.107	1.020	1.013	1.034	1.006	1.012	1.013
1991	0.995	1.060	0.991	0.998	1.008	1.013	1.009
1992	0.898	0.920	0.996	0.968	0.986	0.975	0.978

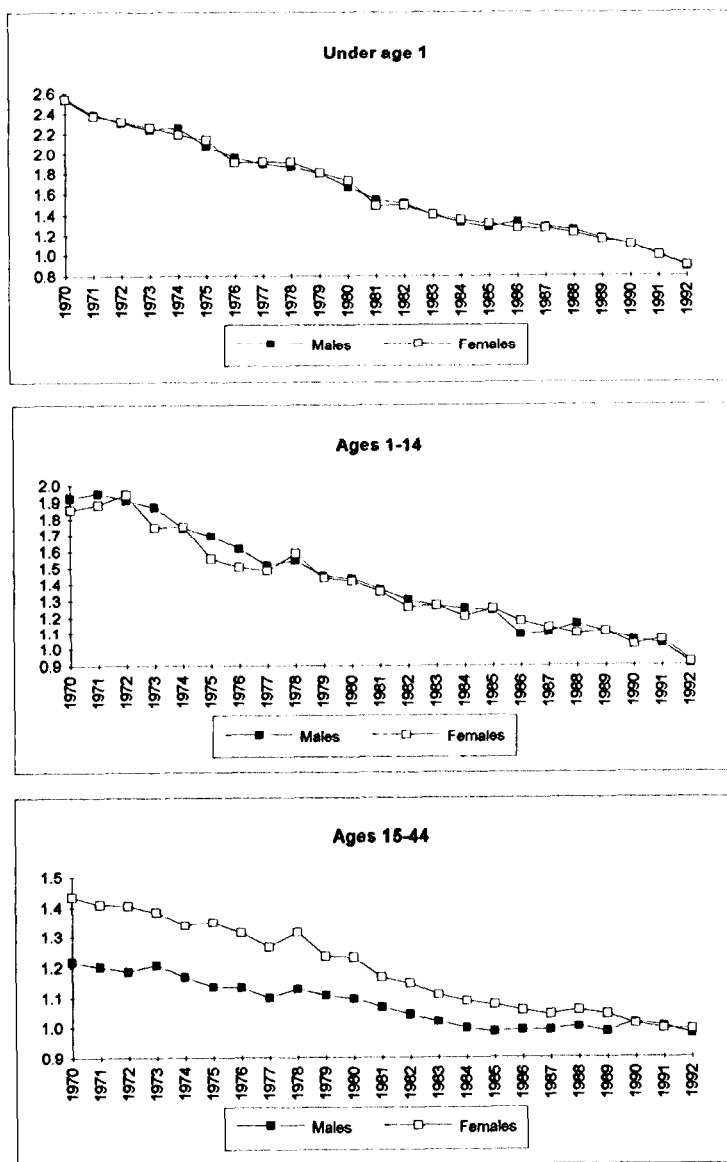


Figure 1. Ratios of standardised group death rates to 1990-92 rates—children and young adults.

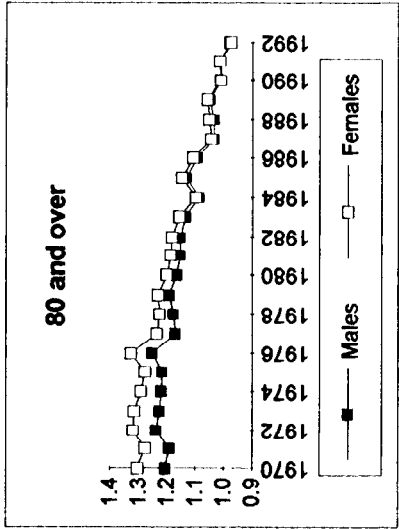
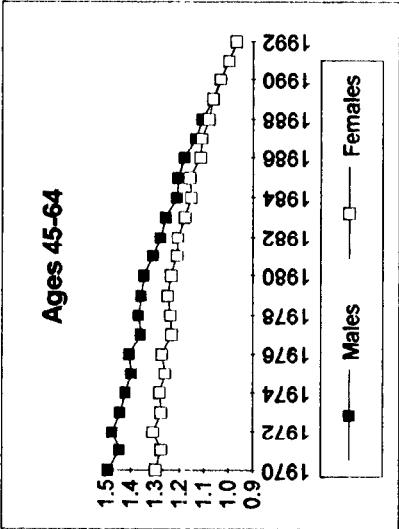
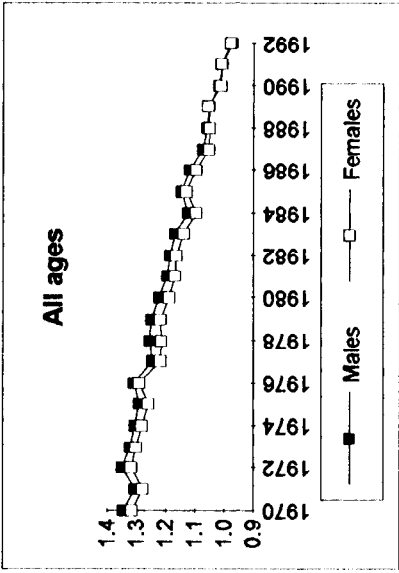
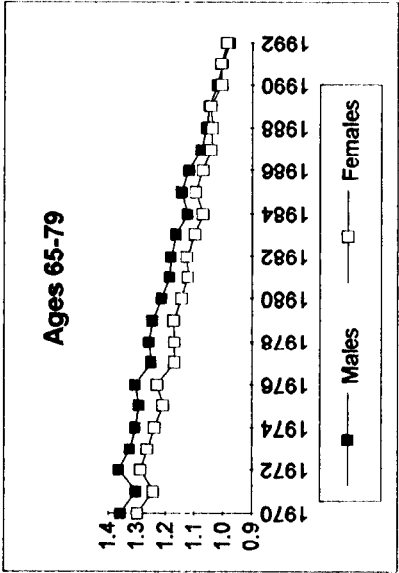


Figure 2. Ratios of standardised group death rates to 1990-92 rates—older adults and all ages.