

## THE RECENT TREND OF MORTALITY IN GREAT BRITAIN

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MORTALITY rates in Great Britain have been considered in a series of notes, the last of which appeared in *J.I.A.* 97, 331, and dealt with mortality in 1970. The results of the 1971 Census appeared to indicate, however, that the estimates of population for the years since the 1961 Census needed revision. To have produced tables for 1971 and subsequent years without revising the death rates for 1961 to 1970 would have distorted the true trend of mortality and consequently preparation of these notes, which are normally produced annually, has been suspended until revised population estimates for the inter-Censal years were available. The series is now being resumed, but the opportunity has been taken to change the basis of standardization to the 1971 Census population.

Central death-rates for Great Britain in the years 1961 to 1974 are given in Tables 1 to 4, together with the ratio of those rates to the corresponding rates for the three years 1970-72, which have been taken as a standard. In calculating the mortality rates, the deaths are those recorded as occurring in Great Britain in the year, and the population used is the 'home' population at the respective mid-year points, i.e. the number of people actually in the country at the time, as estimated by the Registrars General of England and Wales and of Scotland. As indicated above, the estimates used are the revised estimates prepared after the 1971 Census results were known.

In order that the trend of mortality rates may be conveniently studied, standardized group death-rates for 1930-32, 1950-52, and for each year from 1961 to 1974 are set out in Table 5, and the ratios to the 1970-72 standard are given in Table 6; the ratios for 1961 to 1974 are also shown graphically. The age groups used are five in number—under age 1 (infants), 1-14 (children), 15-44 (younger adults), 45-64 (the middle-aged) and 65 and over (the elderly). The group death-rates and ratios have been standardized by five-year age groups on the age-distribution of the Great Britain population at the 1971 Census, so as to estimate the effect of changes in the age-distribution of the population.

It is clear from the tables that the general trend of mortality rates since 1961 has been downward, and this impression is reinforced by the diagrams, which show improvements of 20 to 30 per cent in the ten years to 1971 for infants and children, but slower improvement at the older ages. It is, however, difficult to determine the true trends because of the year-to-year fluctuations. The all-ages standardized rate was, for example, about 3 per cent lower in 1971 than in 1970, but rose again by a similar amount in 1972, only to fall again at a more modest rate in 1973 and 1974.

Table 1. *Death-rates for age-groups in Great Britain in the years 1961 to 1974—Males*

Age groups	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Under 1	-0.2545	-0.2614	-0.2512	-0.2383	-0.2246	-0.2241	-0.2093	-0.2175	-0.2089	-0.2136	-0.2021	-0.1914	-0.1889	-0.1884
1-4	-0.0106	-0.0095	-0.0101	-0.0088	-0.0089	-0.0093	-0.0086	-0.0090	-0.0089	-0.0082	-0.0077	-0.0079	-0.0079	-0.0074
5-9	-0.0049	-0.0045	-0.0050	-0.0046	-0.0049	-0.0045	-0.0045	-0.0045	-0.0042	-0.0041	-0.0044	-0.0042	-0.0041	-0.0036
10-14	-0.0039	-0.0044	-0.0041	-0.0041	-0.0042	-0.0042	-0.0042	-0.0040	-0.0039	-0.0036	-0.0038	-0.0036	-0.0034	-0.0033
15-19	-0.0090	-0.0091	-0.0089	-0.0098	-0.0100	-0.0107	-0.0098	-0.0090	-0.0093	-0.0091	-0.0091	-0.0086	-0.0086	-0.0090
20-24	-0.0112	-0.0111	-0.0112	-0.0111	-0.0107	-0.0107	-0.0099	-0.0096	-0.0095	-0.0100	-0.0097	-0.0100	-0.0107	-0.0097
25-29	-0.0106	-0.0099	-0.0103	-0.0103	-0.0103	-0.0100	-0.0097	-0.0092	-0.0095	-0.0093	-0.0091	-0.0089	-0.0089	-0.0089
30-34	-0.0128	-0.0122	-0.0125	-0.0123	-0.0121	-0.0122	-0.0115	-0.0109	-0.0115	-0.0116	-0.0111	-0.0111	-0.0111	-0.0110
35-39	-0.0193	-0.0192	-0.0190	-0.0193	-0.0190	-0.0186	-0.0174	-0.0171	-0.0170	-0.0168	-0.0168	-0.0170	-0.0166	-0.0161
40-44	-0.0307	-0.0304	-0.0318	-0.0313	-0.0321	-0.0316	-0.0304	-0.0314	-0.0314	-0.0305	-0.0303	-0.0297	-0.0295	-0.0294
45-49	-0.0544	-0.0540	-0.0559	-0.0550	-0.0542	-0.0536	-0.0522	-0.0530	-0.0563	-0.0550	-0.0548	-0.0551	-0.0553	-0.0537
50-54	-0.0957	-0.0957	-0.0967	-0.0940	-0.0951	-0.0956	-0.0904	-0.0949	-0.0971	-0.0942	-0.0916	-0.0945	-0.0923	-0.0935
55-59	-0.1714	-0.1718	-0.1734	-0.1644	-0.1625	-0.1634	-0.1584	-0.1614	-0.1629	-0.1611	-0.1542	-0.1585	-0.1606	-0.1572
60-64	-0.2896	-0.2881	-0.2925	-0.2781	-0.2804	-0.2794	-0.2651	-0.2698	-0.2780	-0.2677	-0.2582	-0.2639	-0.2547	-0.2573
65-69	-0.4507	-0.4528	-0.4613	-0.4305	-0.4416	-0.4464	-0.4287	-0.4440	-0.4575	-0.4400	-0.4212	-0.4352	-0.4208	-0.4144
70-74	-0.6890	-0.6958	-0.7053	-0.6513	-0.6647	-0.6817	-0.6502	-0.6887	-0.7026	-0.6845	-0.6548	-0.6905	-0.6679	-0.6685
75-79	-1.0631	-1.0553	-1.0804	-0.9700	-0.9821	-1.0319	-0.9586	-1.0396	-1.0200	-1.0129	-0.9871	-1.0351	-1.0192	-0.9849
80-84	-1.6060	-1.6245	-1.6918	-1.4851	-1.5234	-1.5225	-1.4018	-1.4977	-1.4198	-1.3819	-1.4460	-1.5051	-1.4963	-1.4939
85 & over	-2.5858	-2.6131	-2.7325	-2.3560	-2.4472	-2.6070	-2.4060	-2.6633	-2.5076	-2.5376	-2.3460	-2.4705	-2.4264	-2.4245
All ages:														
Crude rates	-0.1263	-0.1266	-0.1294	-0.1206	-0.1231	-0.1249	-0.1191	-0.1253	-0.1263	-0.1246	-0.1219	-0.1266	-0.1247	-0.1240
Standardized*	-0.1323	-0.1326	-0.1354	-0.1251	-0.1268	-0.1290	-0.1219	-0.1280	-0.1280	-0.1253	-0.1215	-0.1256	-0.1233	-0.1217

\* Standardized on 1971 Census age distribution.

Table 2. *Death-rates for age-groups in Great Britain in the years 1961 to 1974—Females*

Age groups	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Under 1	-01983	-01955	-01928	-01850	-01705	-01706	-01664	-01620	-01582	-01627	-01540	-01489	-01448	-01419
1-4	-00082	-00080	-00084	-00051	-00077	-00076	-00070	-00073	-00069	-00065	-00064	-00071	-00061	-00059
5-9	-00052	-00033	-00032	-00031	-00031	-00030	-00030	-00031	-00029	-00028	-00029	-00029	-00027	-00026
10-14	-00025	-00025	-00024	-00026	-00029	-00026	-00028	-00026	-00022	-00023	-00024	-00019	-00021	-00023
15-19	-00039	-00036	-00035	-00040	-00041	-00043	-00041	-00037	-00038	-00036	-00038	-00040	-00041	-00037
20-24	-00051	-00049	-00045	-00047	-00047	-00046	-00044	-00044	-00044	-00046	-00042	-00044	-00043	-00042
25-29	-00058	-00063	-00062	-00061	-00060	-00059	-00053	-00054	-00054	-00052	-00050	-00049	-00050	-00046
30-34	-00089	-00091	-00091	-00083	-00081	-00081	-00076	-00079	-00075	-00075	-00075	-00071	-00069	-00066
35-39	-00139	-00143	-00142	-00127	-00135	-00129	-00127	-00125	-00124	-00123	-00118	-00119	-00112	-00117
40-44	-00223	-00221	-00221	-00225	-00225	-00216	-00217	-00214	-00226	-00213	-00204	-00206	-00205	-00199
45-49	-00354	-00355	-00373	-00357	-00352	-00348	-00337	-00344	-00353	-00361	-00355	-00358	-00353	-00346
50-54	-00534	-00540	-00543	-00536	-00532	-00533	-00528	-00548	-00569	-00540	-00533	-00540	-00536	-00540
55-59	-00838	-00839	-00845	-00805	-00813	-00793	-00793	-00813	-00846	-00816	-00811	-00841	-00826	-00837
60-64	-01407	-01405	-01402	-01312	-01309	-01302	-01292	-01313	-01323	-01289	-01253	-01287	-01269	-01269
65-69	-02354	-02312	-02360	-02183	-02190	-02205	-02189	-02137	-02207	-02135	-02018	-02091	-02071	-02038
70-74	-04115	-04008	-04076	-03764	-03790	-03830	-03892	-03759	-03748	-03637	-03470	-03599	-03508	-03467
75-79	-07090	-06943	-06976	-06126	-06231	-06373	-06402	-06431	-06324	-06191	-06009	-06217	-06059	-05879
80-84	-11937	-11823	-12218	-10866	-10777	-10806	-09981	-10549	-09889	-09888	-10340	-10369	-10369	-10231
85 & over	-21559	-21464	-22037	-19125	-19823	-20351	-19262	-21501	-20213	-20354	-18917	-19426	-19638	-19437
All ages:														
Crude rates	-01138	-01133	-01161	-01071	-01095	-01121	-01071	-01141	-01134	-01128	-01110	-01159	-01153	-01151
Standardized*	-01281	-01265	-01287	-01165	-01175	-01193	-01122	-01189	-01167	-01148	-01106	-01141	-01129	-01115

\* Standardized on 1971 Census age distribution.

Table 3. Ratios of death-rates for age-groups in Great Britain in the years 1961 to 1974 to the rates for 1970-72—Males

Age groups	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Under 1														
1-4	1.26	1.29	1.24	1.18	1.11	1.11	1.03	1.07	1.03	1.06	1.00	.95	.93	.93
5-9	1.34	1.20	1.28	1.11	1.13	1.18	1.09	1.14	1.13	1.04	.97	1.00	1.06	.94
10-14	1.17	1.07	1.19	1.10	1.17	1.17	1.07	1.07	1.00	.98	1.05	1.00	.98	.96
15-19	1.05	1.19	1.11	1.11	1.14	1.14	1.14	1.08	1.05	.97	1.03	.97	.92	.89
20-24	1.01	1.02	1.00	1.10	1.12	1.20	1.10	1.01	1.04	1.02	1.02	1.01	.97	1.01
25-29	1.13	1.12	1.13	1.12	1.08	1.08	1.00	.97	.96	1.01	.98	1.01	1.08	.98
30-34	1.16	1.09	1.13	1.13	1.13	1.10	1.07	1.01	1.04	1.02	1.00	.98	1.04	.98
35-39	1.13	1.08	1.11	1.09	1.07	1.08	1.02	.96	1.02	1.03	.98	.98	.98	.97
40-44	1.14	1.14	1.12	1.14	1.12	1.10	1.03	1.01	1.01	1.01	.99	1.01	.98	.95
45-49	1.02	1.01	1.05	1.04	1.06	1.05	1.01	1.04	1.04	1.01	1.00	.98	1.01	.98
50-54	.99	.98	1.02	1.00	.99	.97	.95	.96	1.03	1.01	1.00	1.00	1.01	.99
55-59	1.02	1.04	1.04	1.01	1.02	1.02	.97	1.02	1.04	1.01	.98	1.01	.99	1.00
60-64	1.09	1.09	1.10	1.04	1.03	1.03	1.00	1.02	1.03	1.02	.98	1.00	1.02	1.00
65-69	1.10	1.09	1.11	1.06	1.06	1.06	1.01	1.02	1.06	1.02	.97	1.01	.97	.95
70-74	1.04	1.05	1.07	1.00	1.02	1.03	.99	1.03	1.04	1.02	.97	1.01	.97	.99
75-79	1.02	1.03	1.04	.96	.98	1.01	.95	1.02	1.01	1.00	.98	1.02	1.01	.97
80-84	1.05	1.04	1.07	1.06	.97	1.02	.97	1.03	1.01	1.00	.98	1.02	1.04	1.03
85 & over	1.11	1.12	1.17	1.03	1.05	1.03	.97	1.04	.98	1.00	1.00	1.04	1.04	.99
	1.05	1.07	1.11	.96	1.00	1.06	.98	1.09	1.02	1.04	.96	1.01	.99	.99
All ages:														
Crude rates	1.02	1.02	1.04	.97	.99	1.00	.96	1.01	1.02	1.00	.98	1.02	1.00	1.00
Standardized*	1.07	1.07	1.09	1.01	1.02	1.04	.98	1.03	1.03	1.01	.98	1.01	.99	.98

\* Standardized on 1971 Census age distribution.

Table 4. Ratios of death-rates for age-groups in Great Britain in the years 1961 to 1974 to the rates for 1970-72—Females

Age groups	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Under 1	1.28	1.26	1.24	1.19	1.10	1.10	1.07	1.04	1.02	1.05	.99	.96	.93	.91
1-4	1.22	1.19	1.25	1.13	1.15	1.13	1.04	1.09	1.03	.97	.96	1.06	.91	.88
5-9	1.10	1.14	1.10	1.07	1.07	1.08	1.03	1.07	1.00	.97	1.00	1.00	.91	.90
10-14	1.14	1.14	1.09	1.18	1.32	1.18	1.27	1.12	1.00	1.05	1.09	1.06	.95	1.05
15-19	1.03	.95	.92	1.05	1.08	1.03	1.08	.91	1.00	.95	1.00	1.05	1.08	.97
20-24	1.16	1.11	1.02	1.07	1.08	1.03	1.00	.91	1.00	1.03	.95	1.00	.98	.95
25-29	1.16	1.26	1.24	1.22	1.20	1.18	1.06	1.08	1.08	1.04	1.00	.99	1.00	.95
30-34	1.22	1.25	1.25	1.14	1.11	1.08	1.04	1.08	1.03	1.00	1.03	.97	.93	.92
35-39	1.17	1.20	1.19	1.07	1.13	1.08	1.07	1.03	1.03	1.01	.99	1.00	.93	.90
40-44	1.07	1.06	1.06	1.08	1.08	1.04	1.01	1.01	1.09	1.02	.98	1.00	.99	.98
45-49	.99	.99	1.04	1.00	.98	.97	.94	.96	1.00	1.01	.99	1.00	.99	.97
50-54	1.02	1.00	1.00	.99	.99	1.02	.98	1.01	1.05	1.01	.99	1.00	.99	1.00
55-59	1.02	1.02	1.03	.98	.99	.99	.95	.99	1.03	1.02	.99	1.02	1.00	1.02
60-64	1.10	1.10	1.10	1.03	1.02	1.02	.99	1.03	1.04	1.01	.98	1.01	.98	.99
65-69	1.13	1.11	1.13	1.05	1.06	1.06	1.01	1.03	1.06	1.02	.97	1.00	1.03	.98
70-74	1.12	1.12	1.14	1.05	1.06	1.07	1.00	1.05	1.03	1.03	.98	1.01	.98	.97
75-79	1.15	1.13	1.13	1.08	1.06	1.05	.98	1.05	1.03	1.00	.98	1.01	.99	.96
80-84	1.19	1.18	1.22	1.08	1.07	1.08	.99	1.05	.99	.99	.98	1.03	1.03	1.02
85 & over	1.10	1.10	1.13	.98	1.01	1.03	.98	1.10	1.03	1.04	.97	.99	1.00	.99
All ages:														
Crude rates	1.01	1.00	1.03	.95	.97	.99	.95	1.01	1.00	1.00	.98	1.02	1.02	1.02
Standardized*	1.13	1.12	1.14	1.03	1.04	1.05	.99	1.05	1.03	1.01	.98	1.01	1.00	.98

\* Standardized on 1971 Census age distribution.

Table 5. *Standardized death-rates for age-groups in Great Britain (standardized on 1971 Census age distribution)*

Year	Under 1	1-14	15-44	45-64	65 and over	All ages
<b>MALES</b>						
1930-32	·07953	·00368	·00396	·01738	·08831	·01721
1950-52	·03448	·00085	·00186	·01580	·08392	·01410
1961	·02545	·00062	·00151	·01485	·08114	·01323
1962	·02614	·00059	·00149	·01481	·08157	·01326
1963	·02512	·00062	·00152	·01503	·08372	·01354
1964	·02383	·00056	·00152	·01438	·07564	·01251
1965	·02246	·00058	·00152	·01439	·07742	·01268
1966	·02241	·00058	·00152	·01439	·07961	·01290
1967	·02093	·00056	·00144	·01376	·07484	·01219
1968	·02175	·00056	·00141	·01408	·07986	·01280
1969	·02089	·00055	·00142	·01447	·07914	·01280
1970	·02136	·00051	·00141	·01406	·07757	·01253
1971	·02021	·00052	·00139	·01360	·07524	·01215
1972	·01914	·00051	·00138	·01392	·07868	·01256
1973	·01889	·00050	·00139	·01371	·07690	·01233
1974	·01884	·00046	·00136	·01353	·07605	·01217
<b>FEMALES</b>						
1930-32	·05973	·00333	·00341	·01300	·08229	·01908
1950-52	·02648	·00066	·00146	·00909	·07134	·01460
1961	·01983	·00044	·00096	·00784	·06405	·01281
1962	·01955	·00044	·00097	·00781	·06312	·01265
1963	·01928	·00044	·00095	·00787	·06444	·01287
1964	·01850	·00042	·00094	·00749	·05748	·01165
1965	·01705	·00044	·00094	·00748	·05822	·01175
1966	·01706	·00042	·00092	·00751	·05936	·01193
1967	·01664	·00041	·00089	·00726	·05545	·01122
1968	·01620	·00041	·00088	·00751	·05935	·01189
1969	·01582	·00037	·00090	·00769	·05768	·01167
1970	·01627	·00037	·00087	·00748	·05686	·01148
1971	·01540	·00037	·00084	·00735	·05453	·01106
1972	·01489	·00038	·00085	·00756	·05648	·01141
1973	·01448	·00035	·00084	·00739	·05607	·01129
1974	·01419	·00035	·00081	·00745	·05516	·01115

Table 6. *Ratios of standardized death-rates for age-groups in Great Britain to the rates for 1970-72 (standardized on 1971 Census age distribution)*

Year	Under 1	1-14	15-44	45-64	65 and over	All ages
<b>MALES</b>						
1930-32	3.930	7.191	2.843	1.254	1.144	1.386
1950-52	1.704	1.657	1.334	1.140	1.088	1.135
1961	1.257	1.215	1.086	1.071	1.052	1.066
1962	1.292	1.156	1.066	1.069	1.057	1.068
1963	1.241	1.207	1.086	1.085	1.085	1.090
1964	1.177	1.104	1.092	1.038	.980	1.007
1965	1.110	1.139	1.093	1.038	1.003	1.021
1966	1.107	1.132	1.089	1.038	1.032	1.039
1967	1.034	1.092	1.029	.993	.970	.982
1968	1.075	1.102	1.010	1.016	1.035	1.030
1969	1.032	1.068	1.021	1.044	1.026	1.031
1970	1.055	1.001	1.013	1.015	1.005	1.009
1971	.999	1.008	.998	.981	.975	.979
1972	.946	.991	.989	1.004	1.020	1.012
1973	.933	.971	1.000	.989	.997	.993
1974	.931	.899	.976	.976	.986	.980
<b>FEMALES</b>						
1930-32	3.849	8.891	3.991	1.743	1.471	1.686
1950-52	1.706	1.759	1.709	1.218	1.275	1.290
1961	1.278	1.179	1.125	1.051	1.145	1.132
1962	1.260	1.173	1.131	1.047	1.128	1.118
1963	1.242	1.185	1.116	1.055	1.152	1.137
1964	1.192	1.132	1.096	1.004	1.027	1.030
1965	1.099	1.166	1.106	1.002	1.040	1.038
1966	1.099	1.122	1.079	1.007	1.061	1.054
1967	1.072	1.093	1.037	.973	.991	.992
1968	1.044	1.108	1.025	1.006	1.061	1.051
1969	1.019	.991	1.053	1.031	1.031	1.031
1970	1.048	.990	1.015	1.003	1.016	1.014
1971	.992	1.000	.990	.985	.975	.977
1972	.959	1.010	.995	1.013	1.009	1.008
1973	.933	.930	.979	.990	1.002	.998
1974	.914	.923	.953	.998	.986	.985

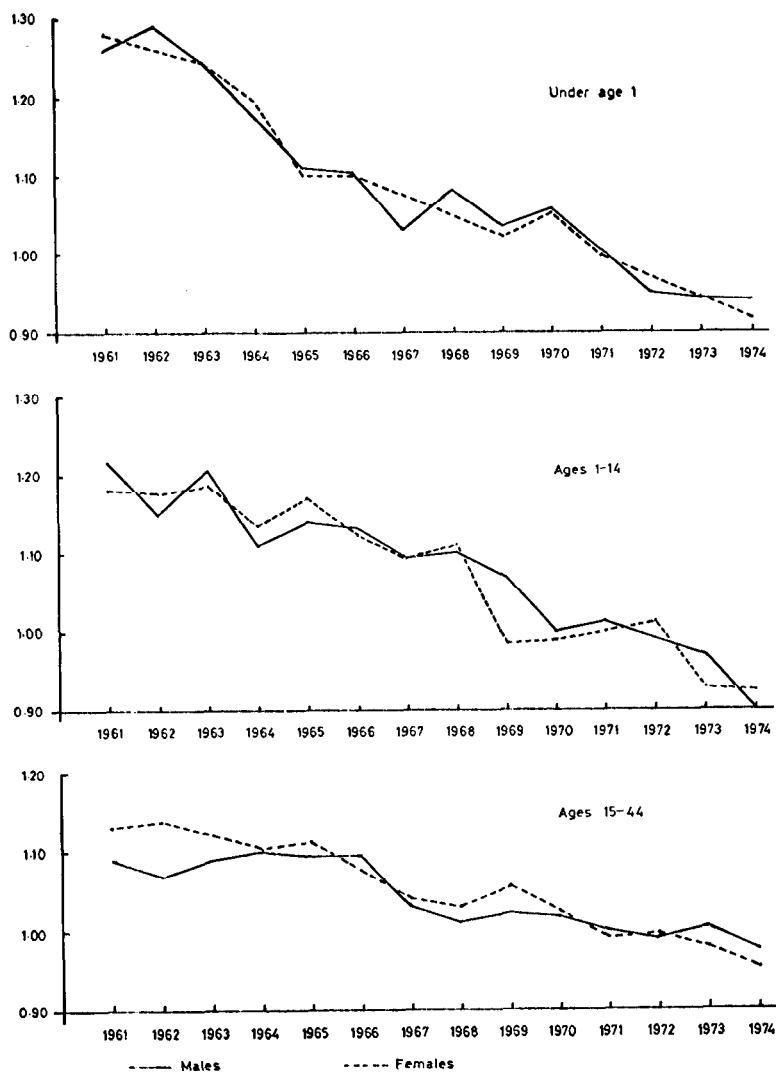


Figure 1. Ratios of Standardized Group death-rates to 1970-72 rates—Children and young adults.



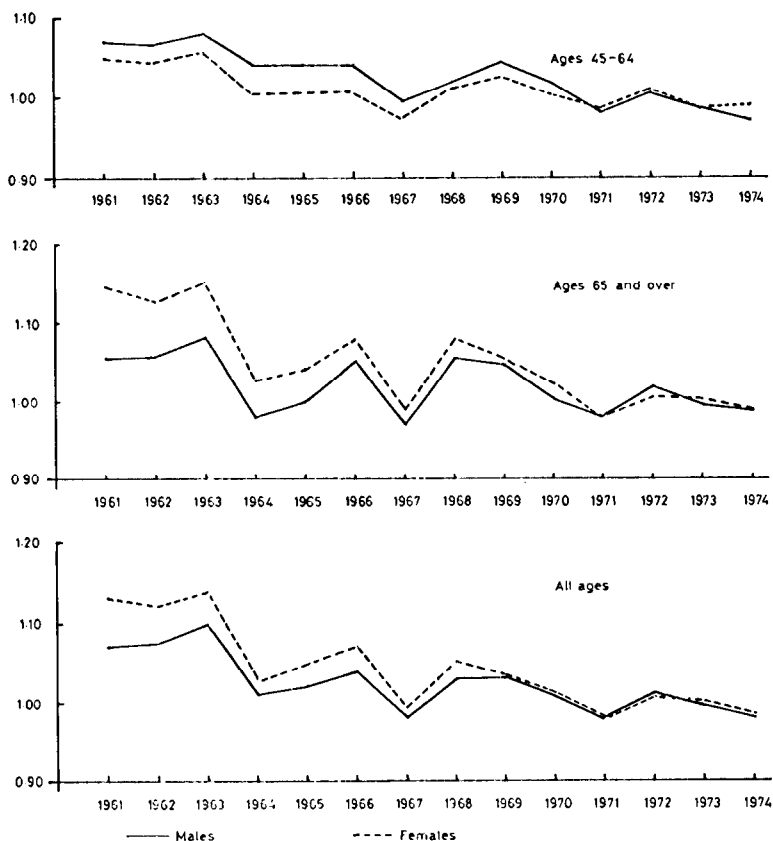


Figure 2. Ratios of Standardized Group death-rates to 1970-72 rates—Older adults and all ages.