

ABOUT MORTALITY DATA FOR ENGLAND AND WALES

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GENERAL

The Office for National Statistics (ONS) is the governmental department that provides statistical and registration services. It was established in 1996 as a result of the merger of the Office of Population Censuses and Surveys (OPCS) with the Central Statistical Office.

The Office also incorporates the General Register Office for England and Wales (GRO). The GRO is responsible for ensuring the registration of all births, marriages, and deaths in England and Wales, and for maintaining a central archive dating back to 1837.

Statistical publications are issued by the "Stationery office". Its earlier name was "Her Majesty's Stationery Office".

Vital statistics in England and Wales date back to 1837. The reliability of these statistics increased significantly in 1841 following the population census. Since then, vital statistics have been published annually including a number of demographic data that are considered to be of a good quality worldwide, relative to the historical time period. Vital statistics are available at the national and regional levels.

The first population census was conducted in 1801 but the first modern, good quality census is the one from 1841. Population censuses have been conducted every 10 years since 1801. The only exception was 1941 when the census was not done. The last population census was conducted in April 2001. It is celebrated as the *Census Bi-centenary*.

Source of Data

The mortality data used for the database come primarily from published sources. Publications by the General Register Office/Office of National Statistics (ONS) were the main source. Census counts prior to 1911 come from Mitchell (1994). Population estimates and deaths counts for the period during world wars were provided by the General Register Office and include only information about the civilian population. For the total population (including military), estimates of population (1912-1920 and 1932-1950) and death counts (1914-1920 and 1939-1950) come from Jdanov et al. (2005). Mid-year population estimates for 1982-2003 are available (from ONS) in two formats: rounded (by thousands) and unrounded. For our calculations, we used the unrounded estimates, but we are

not allowed to release these unpublished raw data. Instead, the *raw data* (Input Database) files show the rounded population estimates

Specific Episodes in the Demographic History of England and Wales

Mortality in England and Wales has been significantly influenced by the two World Wars as well as by the 1918 flu epidemic. Large birth cohorts are notable for a couple of years following the wars. Because this data series includes both civilian and military deaths, the impact of the wars is explicitly evident, particularly during World War I.

TERRITORIAL COVERAGE

There were no territorial changes in England and Wales during the period of reference (1841-2003). Note: Wales was a region of England during the 19th Century.

DEATH COUNT DATA

Coverage and completeness

National death statistics encompass all deaths that occurred in the country, independently of whether the deceased is from the resident population or is a visitor. Deaths of non-residents are not included in sub-national counts. Overseas deaths of nationals are included in the national counts. Death counts during the two world wars include both civilian and military deaths (even if the death occurred abroad).

In England and Wales, deaths are counted in the calendar year during which they occurred. Date of occurrence should be distinguished from date of registration of deaths. In some cases, a coroner has to investigate the cause of death and hence, the registration can be delayed up to several months. Until registration is completed, the death is not counted as having occurred. Hence, the exact number of deaths for the year may not become available until several months after the end of the calendar year. Recently, this period has decreased significantly. Late registration involves a very small number of deaths.

Specific Details

Age-Heaping. Single-year death counts show age heaping effects during the period between the two world wars and during World War I. The age heaping is clearly observed at adult ages, such as 51, 55, 61, and 66. During a sequence of years, the number of deaths at these ages was lower than that observed in the adjacent ages.

POPULATION COUNT DATA

ONS reports annual population numbers for the resident population (i.e., the population residing permanently in England and Wales). Temporary visitors are excluded. These official figures refer to the mid-year population.

The population census counts "everyone" (i.e., the *de facto* population), that is, all people who were in the country at the time of the census.

BIRTH COUNT DATA

Coverage and Completeness

The definition of a live birth is the internationally accepted one.

The statistical collection of birth counts is similar to that of deaths. National birth statistics encompass all births that occurred in the country, independently of whether the mother is from the resident population or is a visitor. Births to mothers who are non-residents are not included in sub-national counts. Overseas births to mothers who are nationals are included in the national counts.

In England and Wales, births are counted in the calendar year during which they occurred. Date of occurrence should be distinguished from date of registration. By law, a birth must be registered within 42 days. This lag may create some difference between the number of births that occurred and the number registered by the end of a year. The HMD includes the former even if the birth was not registered until the following calendar year.

DATA QUALITY ISSUES

In England and Wales, the official population estimates since 1961 are available by single year of age at the middle of each year. Following the HMD methods protocol, we derive the population size on January 1st by averaging the two adjacent mid-year estimates for each age. Then, in order to calculate period

death rates, we must estimate exposure, which approximates the mid-year population.

The user is warned that our exposure estimates may differ from the original mid-year population estimates, and thus, HMD death rates may differ slightly from those published by ONS.

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REFERENCES

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- Jdanov, D., E. Andreev, D.Jasilionis D, and V. Shkolnikov. (2005). "Estimates of Mortality and Population Changes in England and Wales over the two World Wars." *Demographic Research*, Special Collection 4, forthcoming. Available at <http://www.demographic-research.org/>.

APPENDIX:

DESCRIPTION OF DATA USED FOR LEXIS DATABASE

DEATHS

Period	Type of Data	Age grouping	RefCode
1841-1909	Annual number of deaths to the <i>de facto</i> population, by sex and age groups (nx1 rectangles)	0, 1, 2, 3, 4, 5-9, 10-14, 15-19, 20-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+	02
1910-1913; 1921-1938; 1951-2003	Annual number of deaths to the <i>de facto</i> population, by sex and age groups (1x1 rectangles)	0, 1, 2, ...maximum age attained	03, 04, 05, 13, 14
1914-1920; 1939-1950	Annual number of deaths (including military deaths abroad), by sex, age, and year of births	0, 1, 2, ...maximum age attained	99

POPULATION

Period	Type of Data	Age grouping	Comments	RefCode
1841, 1851, 1861, 1871, 1881, 1901	Census counts	0,5,10,...,85+	<i>de facto</i> population	08
1911, 1921, 1931, 1951, 1961	Census counts	0, 1, 2, 3, ..., maximum age attained	<i>de facto</i> population	07, 09
1912-1920, 1932-1950	Annual mid-year population estimates (of permanent residents)	0, 1, 2, 3,, 90	Estimates during the war time include military persons stationed abroad.	98
1962-2003	Annual mid-year population estimates (of permanent residents)	0,1,2,3,.....,90+	Data prior 1981 are rounded to hundreds.	09, 10

BIRTHS

Period	Type of Data	RefCode
1941-2003	Annual live birth counts, by sex	12