

ABOUT MORTALITY DATA FOR NORWAY

by Mila Andreeva

Previously updated by Gabriel Borges, Ethan Roubenoff, Denys Dukhovnov.
Last Revised by Denys Dukhovnov on March 24, 2023

GENERAL

Norwegian population statistics are produced by Norway Statistics (Statistik Sentralbyrå, www.ssb.no). General information regarding how population statistics have been produced over the years is provided on Norway Statistics' web site (Statistics Norway, 2002):

“The first census in Norway was taken in 1769, and regular censuses were instituted in 1801. Since then, with a few exceptions, censuses have been conducted every 10 years. Estimated totals for the nation nevertheless exist for each year since 1735 (the figures for 1735-1815 are taken from Michael Drake: Population and Society in Norway 1735-1865, Cambridge University Press).”

Recently published statistics are:

“... based on population register data. The figures from 1995 and later are based on the Central Population Register (DSF) at the Directorate of Taxes, while the figures for 1968-1994 are taken from its predecessor, the National Population Register (DSP). The register was built up from 1964 to 1966 on the basis of the 1960 census, at the same time as the 11-digit national identity number was introduced as identification. The Office of the National Registrar, which administrates the register, was transferred in 1991 from Statistics Norway to the Directorate of Taxes.

Since 1946 each municipality has had a local population registry that registers all residents in the municipality, pursuant to the Population Registration Act and its regulations. The population registries receive reports of births, deaths, marriages, divorces, migration, etc. from various sources. Since the end of the 1960s statistics on births, deaths and marriages have been compiled on the basis of information that the clergy by law has had to submit ever since 1685.

Since 1968 the register has provided a basis for compiling annual statistics on the population and its composition. For the years prior to 1968 the figures are computed on the basis of the population counted during the 10-year censuses, and the figures for births and deaths and available migration numbers for the years in between.

Updating of the Central Population Register is done in part by the local population registries, which are connected to the DSF via terminals, and in

part by the Directorate of Taxes. The basis of the statistics on changes in the population is electronic copies to Statistics Norway of all such register updates. The reports are also used to update a separate Statistics Norway population database kept for statistical purposes, which forms the basis for the statistics on the composition of the population.

Data on basic statistical units are taken from the address portion of the Ground Property, Address and Building Register (GAB) owned by the Norwegian Mapping Authority.” (Statistics Norway, 2002)

Brørs et al. (2000) describe the technical details regarding how the Central Population Register (CPR) and population databases are organized, and how official statistical tabulations are produced.

Source of Data

The Norwegian mortality database has been compiled from data received directly from Statistics Norway.

The data for the years 1846–1980 are those underlying a publication by Borgan (1983). This publication includes sources of data and a description of the procedures used to adjust raw data for earlier years. The data for the years 1981-1993 were received as an update of Borgan’s data and are provided at the same level of detail (see below). The data for all years since 1994 were received from Norway Statistics and include deaths classified by single year of age and year of birth.

Population estimates for years since 1970 were produced using the Central Population Register. They have been published in annual publications on population statistics, such as:

Befolkningsstatistikk. Folkemengd etter alder, kjønn og sivilstand 1. januar 2001. (Population Statistics. Population by age, sex and civil status at 1st January 2001),

the most recent of which are provided online on the Statistics Norway Web Site at: <http://www.ssb.no/folketall/>.

Population estimates for years prior to 1970 were produced by Statistics Norway based on the population enumerated in censuses, figures for births and deaths, and migration estimates. Population estimates for the years 1846–1901 were published in Statistisk Sentralbyrå (1910). For the years 1901–1909, population estimates are available from Statistisk Sentralbyrå (1915). For the years 1910–1970, population estimates are available from an internal population database of Norway Statistics (Statistisk Sentralbyrå, 1978). In addition, these data were published in the Norwegian life table populations.

Data on deaths for the years 1846–1865 were published in Statistisk Sentralbyrå (1910). In fact, they were estimated from deaths aggregated into

broader age groups. The method used for splitting deaths into single year of age is described in the publication.

Data on deaths for the years 1866–1870 were also estimated from deaths by broader age groups. They were published by *Departementet for det indre* (1873) and the method was published in *Departementet for det indre* (1872).

Since 1871, deaths in Norway have been registered by year of birth. Data on deaths for the years 1871–1875 were published in Statistisk Sentralbyrå (1881). For the years 1876–1910, death data have been published in Statistisk Sentralbyrå (1876–1910). During these years, deaths registered among the resident population are given in five-cohort age groups. The difference between deaths registered among the resident population and all deaths registered in Norway is mostly due to deaths among Norwegian seamen aged 15 to 60. For the years 1886–1890 and 1896–1910, there are handwritten tables in the archives of Norway Statistics that enable one to calculate deaths among the resident population by single year of birth. With some additional effort, it is also possible to obtain such data for 1876–1881.

For the years 1882–1885, deaths among the resident population by single year of birth have been estimated using the average distributions observed in the years 1876–1881 and 1886–1990. The same procedure has been applied for splitting deaths in the years 1891–1895 using the average distributions for the years 1886–1890 and 1896–1900.

In *Folkemengdens bevegelse* for 1901 and 1902, deaths at ages 30–94 are aggregated into two- or three-year birth cohorts. They have been split by single year of birth according to live births of the respective cohorts. Male deaths at ages 15–59 have been adjusted later for deaths among Norwegian seamen while abroad and for deaths among non-residents while in Norway.

During the period 1876–1910, for male deaths in the age groups 0–15 and 60 and older, and for female deaths at all ages, the difference between deaths among resident population and all deaths registered in Norway is insignificant. Thus, deaths by single year of birth have been taken from statistics for all deaths registered in Norway.

Data on deaths since 1911 are available from an internal death database of Norway Statistics (Statistisk Sentralbyrå, 1978).

Except for the aforementioned publications, deaths by single year of age and single year of birth are not published by Statistics Norway (personal communication, 26th October 2001). Thus, the data included in the Human Mortality Database (HMD) come from custom tabulations by Norway Statistics and must be cited as “Unpublished population statistics from Statistics Norway”.

Birth data for the year 1976 and are available online on Norway Statistics' [website](#). For the years 1846–1975, they are available from data underlying the publication of Borgan (1983). Birth data for the years 1846–1915 were not available by sex, so they have been split according to sex ratios at birth observed in later years (observed male/female ratio = 1.06).

TERRITORIAL COVERAGE

To the best of the authors' knowledge all population and vital statistics refer to the contemporary territory of Norway.

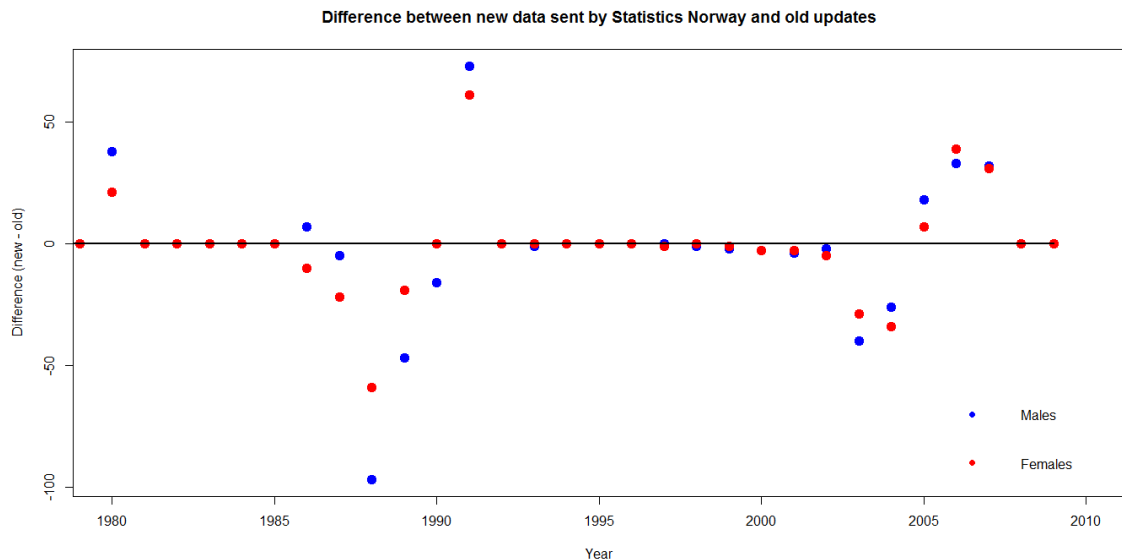
POPULATION COUNT DATA

Note that population counts were provided by single year of age up to the maximum age possible by Statistics Norway for years 1846 to 2023.

REVISION HISTORY

Changes with the 2015 revision:

Deaths: In 2015, Statistics Norway provided new information of death counts from 1980 to 2014, by sex, age and birth cohort, without any deaths at unknown ages and with no open age interval (i.e. data provided up to the highest age with survivors). Minor differences between the new data and the death counts published previously were found along the period, ranging from -97 for males in 1988 to 39 for females in 2006. The graph below shows the difference in the total death counts by sex.



In addition to differences in the total death counts, there were differences in the distribution by age, since the new data were provided with birth cohort information, which allows the direct calculation of Lexis triangles counts. This information was not available in the previous updates as the death counts for 1980-1993 were provided by birth cohort but not by completed age at the time of death.

Life expectancy estimations have changed with the updated death counts, mainly for the period 1986-1991. The difference in e_0 for both sexes combined is around 0.3 years for the period 1986-1990 and 0.2 for 1991.

Changes with the December 2017 revision:

Life tables: All life tables have been recalculated using a modified methods protocol. The revised protocol (Version 6) includes two changes: 1) a more precise way to calculate a_0 , the mean age at death for children dying during the first year of life and 2) the use of birth-by-month data (where and when available) to more accurately estimate population exposures. These changes have been implemented simultaneously for ALL HMD series/countries. For more details about these changes, see the revised Methods Protocol (at <http://v6.mortality.org/Public/Docs/MethodsProtocol.pdf>), particularly section 7.1 on Period life tables and section 6 and Appendix E, on death rates. The life tables calculated under the prior methods (Version 5) remain available at v5.mortality.org but will not be further updated in the future.

Changes with the March 2021 revision:

Deaths: Data were revised and updated through 2020. Deaths 2015-2018 have been retroactively updated by Norway Statistics and thus replace existing InputDB deaths for these years.

ACKNOWLEDGEMENTS

The authors would like to thank Kirsten Enger Dybendal, Nico Keilman, Jens-Kristian Borgan, and Svein Holm at Norway Statistics for their help in obtaining the Norwegian population data and for valuable comments on the nature of the data and sources of population statistics. The authors also extend their thanks to the entire staff of the Population Department of Statistics Norway for their excellent collaboration.

REFERENCES

- Borgan, Jens-Kristian. (1983). *Kohort-dodeligheten i Norge 1846-1980*. Central Bureau of Statistics of Norway.
- Brørs, Anne Sofie, Dybendal, Kirsten, Foss, Aslaug Hurlen, and Jakobsen, Trude. (2000). *Dokumentasjon av BESYS - befolkningsstatistikksystemet Befolkningsendringer i 1998 og befolkningsbasen (BEBAS) 1.januar 2000*. Norway Statistics.
- Departementet for det indre. (1872). *Tabeller vedkommende Folkemængdens Bevægelse i Aaret 1869*. NOS I C.No. 1, Christiania: Departementet for det indre.

- Departementet for det indre. (1873). *Tabeller vedkommende Folkemængdens Bevægelse i Aarene 1851-1870*. NOS I C.No. 1, Christiania: Departementet for det indre.
- Norway Statistics. (2002). Section "About the Statistics." Retrieved 31 January 2002. (http://www.ssb.no/folkemengde_en/about.html).
- Statistisk Sentralbyrå. (1876-1910). *Statistik over Folkemængdens Bevægelse I 1876-1880, Hefte 1, 1881-1885, Hefte 1. Tabeller vedkommende Folkemængdens Bevægelse: 1881, ... 1885. Folkemængdens Bevægelse: 1886, ... 1910*. NOS. Kristiania: Det Statistiske Centralbureau.
- Statistisk Sentralbyrå. (1881). *Tabeller vedkommende Folkemængdens Bevægelse i 1871-1875*. NOS, I C.No. 1. Kristiania: Det statistiske Centralbureau.
- Statistisk Sentralbyrå. (1910). *Norges Folkemænge 1846-1901*, NOS V 113 Kristiania.
- Statistisk Sentralbyrå. (1915). *Dødelighetstabeller for det Norske Folk 1901/02-1910/11*, NOS VI 45, Kristiania.
- Statistisk Sentralbyrå. (1978). *Utviklingen I giftermål og dødsfall 1911-1976*, SA nr. 35. Oslo: Statistisk Sentralbyrå.

APPENDIX I

DESCRIPTION OF DATA USED FOR LEXIS DATABASE

DEATHS

| Period | Age groups | Comments | RefCode(s) |
|-----------|--|--|----------------|
| 1846–1979 | By year of birth but not by single year of age | Unpublished population statistics from Statistics Norway | 11 |
| 1980-2022 | By single year of age and year of birth | Unpublished population statistics from Statistics Norway | 30, 40, 44, 48 |

POPULATION

| Period | Age groups | Comments | RefCode(s) |
|-----------|--------------------------------|---|--|
| 1846–1981 | All ages by single year of age | Starting with 1970 population estimates are based on the Central Population Register (Borgan, 1983) | 11 |
| 1982–2023 | All ages by single year of age | Population estimates from Norway Statistics, based on Central Population Register | 2, 4, 3, 5, 7, 12, 13, 17, 19, 20, 23, 9, 29, 39, 43, 47 |

BIRTHS BY SEX

Type of data: Annual live birth counts by sex. Data not available by sex for 1846-1915.

Period covered: 1846-2022

Refcodes: 8, 11, 14, 17, 20, 23, 25, 26, 31, 38, 42, 46

BIRTHS BY MONTH

Type of data: Annual live birth counts by month.

Period covered: 1931-2022

Refcodes: 27, 28, 37, 41, 45

APPENDIX II

CENSUSES IN NORWAY

DATES OF NATIONAL CENSUSES

| | | |
|----|----------------|---|
| 1 | 1769, 15 Aug | |
| 2 | 1801, 1 Feb | First census that included names of persons. Folketeljing i Danmark, Noreg og på Island den 1. Februar 1801. |
| 3 | 1815, 30 April | First census after separation from Denmark in 1814 |
| 4 | 1825 | |
| 5 | 1835 | |
| 6 | 1845 | |
| 7 | 1855 | |
| 8 | 1865 | Second census that included names of persons |
| 9 | 1875 | |
| 10 | 1891, 2 Jan | |
| 11 | 1900, 3 Dec | |
| 12 | 1910 | |
| 13 | 1920 | |
| 14 | 1930 | |
| 15 | 1946, Dec 3 | Conducted six years late due to WWII |
| 16 | 1950, Dec 1 | |
| 17 | 1960, Nov 1 | |
| 18 | 1970, Nov 1 | |
| 19 | 1980, Nov 1 | |

See also: <http://www.ssb.no/vis/fob/historikk.html>.

List of publications related to census data

(Source: <http://www.ssb.no/vis/fob/historikk.html>, accessed 31 January 2002)

Statistiske Tabeller for Kongeriget Norge. Første Række, indeholdende Tabeller over Folkemængden i Norge den 29de November 1835 / udgivne efter det

- Kongelige Finants-, Handels- og Told-Departements Foranstaltning. - Christiania : Departementet, 1838. - 68 s.
- Statistiske Tabeller for Kongeriget Norge. Attende Række, indeholdende Tabeller over Folkemængden i Norge den 31te December 1845 samt over de i Tidsrummet 1836-1845 Ægteviede, Fødte og Døde / udgivne efter Foranstaltning af Departementet for det Indre. - Christiania : Departementet, 1847. - XVI, 53 s.
- Statistiske Tabeller for Kongeriget Norge. Sextende Række, indeholdende Tabeller over Folkemængden i Norge den 31te December 1855 samt over de i Tidsrummet 1846-1855 Ægteviede, Fødte og Døde / udgivne efter Foranstaltning af Departementet for det Indre. - Christiania : Departementet, 1857. - XV, 52, LIII s.
- Resultaterne af Folketællingen i Norge i Januar 1866 / udgivne af Departementet for det Indre. - Christiania : Departementet, 1869. - XXXVI, 291 s. - (Norges officielle statistik ; C. No 1)
- Tabeller vedkommende folketællingerne i aarene 1801 og 1825 / udgivne af Departementet for det Indre. - Christiania : Departementet, 1874. - 97 s. - (Norges officielle statistik ; C. No 1)
- Resultaterne af Folketællingen i Norge i Januar 1876 / udgivet af det Statistiske Centralbureau. - Kristiania : Det Statistiske Centralbureau, 1878-1880. - 3 b. - (Norges officielle statistik ; C. No 1)
- Bidrag til en norsk Befolkningsstatistik : Indledning til Tabeller indeholdende Resultaterne af Folketællingen i Norge i Januar 1876 / udgivet af Det statistiske Centralbureau. - Kristiania : Det Statistiske Centralbureau, 1882. - 274 s. - (Norges officielle statistik ; C. No 1)
- Resultaterne af de kommunale Folketællinger i Norges Byer den 31te December 1885 / udgivet af det Statistiske Centralbureau. - Kristiania : Det Statistiske Centralbureau, 1887. - 153 s. - (Norges officielle statistik)
- Folketællingen i Kongeriget Norge 1 Januar 1891 / udgivet af Det statistiske Centralbureau. - Kristiania : Det Statistiske Centralbureau, 1894-1898. - 6 b. - (Norges officielle statistik)
- Folketællingen i Kongeriget Norge 3 December 1900 / udgivet af Det statistiske Centralbureau. - Kristiania : Det Statistiske Centralbureau : Aschehoug [kommisjonær], 1901-1906. - 8 b. - (Norges officielle statistik)
- Folketællingen i Norge 1 december 1910 / utgit av Det Statistiske centralbyraa. - Kristiania : Det Statistiske Centralbyraa : Aschehoug [kommisjonær], 1911-1916. - 8 b. - (Norges officielle statistik)
- Folketællingen i Norge 1 desember 1920 / utgitt av Det Statistiske centralbyrå. - Oslo : Det Statistiske centralbyrå : Aschehoug [kommisjonær], 1921-1925. - 13 b.+ Foreløpige resultater - (Norges offisielle statistikk)

- Alfabetisk oversikt over almindelige livsstillinger / utgitt av det Statistiske centralbyrå, 1930. - 76 s.
- "Oslo-befolkning" som bor utenfor Oslo / <Statistisk sentralbyrå>. - Oslo : Statistisk sentralbyrå, 1932. - 13 s.
- Folketellingen i Norge 1 desember 1930 / utgitt av det Statistiske centralbyrå. - Oslo : Det Statistiske centralbyrå : Aschehoug [kommisjonær], 1932-1935. - 10 b. - (Norges offisielle statistikk)
- Folketellingen i Norge 3. desember 1946 / utgitt av Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå : [Aschehoug kommisjonær], 1947-1954. - 6 b. + Foreløpige resultater - (Norges offisielle statistikk)
- Folketellingen 1. desember 1950 / Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå, 1953-1957. - 10 b. - (Norges offisielle statistikk)
- Folketellingen 1. november 1960 : tellingsresultater. Tilbakegående tall. Prognoser / Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå, 1962-63. - 740 h.
- Folketelling 1960 / Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå, 1963-1964. - 8 b. - (Norges offisielle statistikk)
- Folke- og bolig telling 1. november 1970 : statistiske kommunehefter / Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå, 1972-1974. - 451 h.
- Folke- og bolig telling 1970 / Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå, 1974-1976. - 6 b. - (Norges offisielle statistikk)
- Folketellinga 1801 : ny bearbeiding / Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå, 1980. - 165 s. - (Norges offisielle statistikk ; B 134) ISBN 8253711492
- Norges første folketelling 1769 / Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå, 1980. - 368 s. - (Norges offisielle statistikk ; B 106) ISBN 8253711034
- Folke- og bolig telling 1980 : kommunehefte / Statistisk sentralbyrå. - Kongsvinger : Statistisk sentralbyrå, 1981. - 454 h.
- Folke- og bolig telling 1980 : landssammendrag av kommunehefter / Statistisk sentralbyrå. - Kongsvinger : Statistisk sentralbyrå, 1982. - 37 s. ISBN 8253717644
- Folke- og bolig telling 1980 : sammendrag av kommunehefter : fylkeshefte / Statistisk sentralbyrå. - Kongsvinger : Statistisk sentralbyrå, 1982. - 20 h.
- Folke- og bolig telling 1980 / Statistisk sentralbyrå. - Oslo : Statistisk sentralbyrå, 1982-1986. - 4 b. - (Norges offisielle statistikk)
- Population and Housing Census 1990 / by Jan Furseth. - Kongsvinger : Statistisk sentralbyrå, 1990. - 46 s.
- Folke- og bolig telling 1990 / av Jan Furseth. - Kongsvinger : Statistisk sentralbyrå, 1990. - 36 s.

- Folke- og boligtelling 1990 : foreløpige hovedtall / Statistisk sentralbyrå. - Oslo : SSB, 1991. - 28 s. - (Norges offisielle statistikk ; B 961) ISBN 8253730446.
- Folke- og boligtelling 1990 : kommunehefte / Statistisk sentralbyrå. - Kongsvinger : Statistisk sentralbyrå, 1991-1992. - 473 hefter (448 kommuner og 25 bydeler).
- Folke- og boligtelling 1990 : [fylkessammendrag] / Statistisk sentralbyrå. - Oslo : SSB, 1992. - 18 hefter.
- Folke- og boligtelling 1990 : hele landet / Statistisk sentralbyrå. - Oslo : SSB, 1992. - 46 s. ISBN 8253737750.
- Folke- og boligtelling 1990 : dokumentasjon og hovedtall / Statistisk sentralbyrå. - Oslo : SSB, 1999. - 205 s. - (Norges offisielle statistikk ; C 524) ISBN 8253746644.