

**Standard Report**  
**on**  
**Methods and Quality (v1)**  
**for**  
**Irish Life Tables**

This documentation applies to the reporting period:

**<2007 onwards>**

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## **1 Overview**

Life Tables presented are period life expectancies. Period expectation of life at a given age is the average number of years a person would live if he or she experienced age-specific mortality rates for that time throughout his or her life. It is therefore not the number of years someone of that age could actually expect to live because death rates are likely to change in the future.

The basic assumption is that a given cohort of births, (100,000), start in a given year. The mortality rates for each age are used to calculate how many of the cohort will reach each year of age until eventually all members of the cohort have died. This enables the total number of years lived by the cohort to be calculated. When this total is divided by the number of persons in the cohort (100,000) the result is the average number of years lived in the cohort, or the mean expectation of life at birth. The total number of years lived by the cohort from any given age can also be calculated and, when divided by the number of survivors in the cohort entering upon that year of age, the figure obtained is the expectation of life in years for those persons.

## **2 General Information**

### **2.1 Statistical Category**

Compilation based on administrative data

### **2.2 Area of Activity**

Social Statistics

### **2.3 Organisational Unit Responsible, Persons to Contact**

Vital Statistics

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### **2.4 Objectives and Purpose; History**

Life Tables calculate the period expectation of life at a given age. This is the average number of years a person would live if he or she experienced age-specific mortality rates for that time throughout his or her life. The first available figures for life expectancy in Ireland are for 1871, 1882, 1891, 1901 and 1911 from the Report on the Commission on Emigration and other Population Problems 1948-1954. The first official Life Tables were calculated for 1926 and there have been 14 subsequent tables calculated, based on three years, centred on the Census of Population reference year.

### **2.5 Periodicity**

Life Tables calculated based on three years, centred on each year of a Census of Population.

### **2.6 Client**

Vital Statistics releases and publications are prepared on behalf of the Minister for Health and Children in accordance with the provisions of Section 2 of the Vital Statistics and Births, Deaths and Marriages Registration Act, 1952 and Section 73 of the Civil Registration Act 2004.

## **2.7 Users**

- Government
- Other CSO sections
- Demographic Researchers, Health Researchers
- The general public
- Professional Bodies
- European Union/Eurostat
- World Health Organisation

## **2.8 Legal basis**

Vital Statistics releases and publications are prepared on behalf of the Minister for Health and Children in accordance with the provisions of Section 2 of the Vital Statistics and Births, Deaths and Marriages Registration Act, 1952 and Section 73 of the Civil Registration Act 2004.

# **3 Statistical Concepts, Methods**

## **3.1 Subject of the Statistics**

Age specific death rates.

## **3.2 Units of Observation/Collection Units/Units of Presentation**

Number of deaths by single years of age, as a percentage of the number in the population of that age

## **3.3 Data Sources**

General Registration Office(Deaths). Central Statistics Office(Population).

## **3.4 Reporting Unit/Respondents**

Every death occurring in Ireland must be registered with the General Register Office.

Census of Population and Population estimates.

## **3.5 Type of Survey/Process**

Aggregation of administrative data concerning registered deaths and population figures.

## **3.6 Characteristics of the Sample/Process**

### **3.6.1 Population and Sampling Frame**

Not applicable

### **3.6.2 Sampling/Census Design**

Not applicable

### **3.7 Survey Technique/Data Transfer**

Weekly files of deaths registered in the previous week are sent electronically from the General Register Office to the Central Statistics Office.

Internal files available for census of population and population estimates by single year of age.

### **3.8 Questionnaire (including explanations)**

Not applicable

### **3.9 Participation in the Survey**

Not applicable

### **3.10 Characteristics of the Survey/Process and its Results**

Aggregations classified by age and sex

### **3.11 Classifications used**

NutsIII

### **3.12 Regional Breakdown of Results**

The classification is at the level of the 8 regional authority areas

## **4 Production of the Statistics, Data Processing, Quality Assurance**

### **4.1 Data Capture**

Not applicable

### **4.2 Coding**

Not applicable

### **4.3 Data Editing**

Not applicable

### **4.4 Imputation (for Non-Response or Incomplete Data Sets)**

Not applicable

### **4.5 Grossing and Weighting**

Not applicable

### **4.6 Computation of Outputs, Estimation Methods Used**

The basic assumption is that a given cohort of births, (100,000), start in a given year. The mortality rates for each age are used to calculate how many of the cohort will reach each year of age until eventually all members of the cohort have died. This enables the total number of years lived by the cohort to be calculated. When this total is divided by the number of persons in the cohort (100,000) the result is the average number of years lived in the cohort, or the mean expectation of life at birth. The total number of years lived by the cohort from any given age can also be calculated and, when divided by the number of survivors in the cohort entering upon that year of age, the figure obtained is the expectation of life in years for those persons.

### **4.7 Other Quality Assurance Techniques Used**

Not applicable

## **5 Quality**

### **5.1 Relevance**

Mortality statistics are fundamental to demographic analysis. Life Tables calculate the period expectation of life at a given age. This is the average number of years a person would live if he or she experienced age-specific mortality rates for that time throughout his or her life. Healthy life expectancy at birth is an indicator of health conditions, including the impacts of mortality and morbidity.

## **5.2 Accuracy and Reliability**

### **5.2.1. Sampling Effect & Representivity**

Not applicable

### **5.2.2 Non-Sampling Effects**

#### **5.2.2.1 Quality of the Data Sources used**

The sources of the data are the attending doctor for the cause of death, and the next of kin or other qualified informant for the demographic details. For unexpected deaths or deaths from external causes, the data sources are the coroner and the Gardai investigating the death. The Census of Population and population estimates are also used.

#### **5.2.2.2 Register Coverage**

All deaths occurring in Ireland are legally obliged to be registered. Non-registration is rare because of the necessity of a death certificate for many legal purposes. However, there can sometimes be considerable delay in registration of deaths, particularly in the case of deaths requiring an inquest.

Please see quality report on Methods and Quality for Census of Population

[http://www.cso.ie/surveysandmethodologies/surveys/populations/documents/pdf\\_docs/COP\\_quality\\_report.pdf](http://www.cso.ie/surveysandmethodologies/surveys/populations/documents/pdf_docs/COP_quality_report.pdf)

#### **5.2.2.3 Non-response (Unit and Item)**

Not applicable

#### **5.2.2.4 Measurement Errors**

Not available

#### **5.2.2.5 Processing Errors**

Not applicable

#### **5.2.2.6 Model-related Effects**

Not available

## **5.3 Timeliness & Punctuality**

### **5.3.1 Provisional Results**

Not applicable

### **5.3.2 Final Results**

The aim is to publish the results within 1 year of the end of the reference period.

### **5.4 Coherence**

Vital Statistics data on life expectancy is the only comprehensive source of information for male and female period life expectancy by age.

### **5.5 Comparability**

Life expectancy is a summary of overall health conditions for a population which can be looked at over across different time series and comparisons made across different countries.

### **5.6 Accessibility and Clarity**

#### **5.6.1 Assistance to Users, Special Analyses**

Specific user requests are acceded to where possible, and where confidentiality issues do not arise. Please contact vitalstats@cs0.ie

#### **5.6.2 Revisions**

Generally there are no revisions.

### **5.6.3 Publications**

#### **5.6.3.1 Releases, Regular Publications**

**5.6.3.2** The most recent versions of these reports can be accessed at:

[http://www.cso.ie/releasespublications/pr\\_bdm.htm](http://www.cso.ie/releasespublications/pr_bdm.htm)

#### **5.6.3.2 Statistical Reports**

Statistical Yearbook

The Irish Statistical Bulletin, Sept. – Dec. 1985, contains further detail on the construction of Life Tables.

#### **5.6.3.3 Internet**

More publications are in our archive at:

[http://www.cso.ie/releasespublications/pr\\_bdmarchive.htm](http://www.cso.ie/releasespublications/pr_bdmarchive.htm)

Users can create their own tables from the Database Direct Facility:

<http://www.cso.ie/px/pxeirestat/database/eirestat/Births%20Deaths%20and%20Marriages/Births%20Deaths%20and%20Marriages.asp>

### **5.6.4 Confidentiality**

All data are treated as strictly confidential in accordance with Part V of the Statistics Act, 1993, and Section 73 of the Civil Registration Act, 2004.

## **6 Additional documentation and publications**

Many of the regular thematic CSO publications include tables of death statistics. Examples are Measuring Ireland's progress, Women and Men in Ireland, Ireland – North and South, and Ageing in Ireland. These publications can be seen at:

[http://www.cso.ie/releasespublications/other\\_publications.htm](http://www.cso.ie/releasespublications/other_publications.htm)

The entries for this statistic under StatCentral (the portal to Ireland's official statistics) is at

<http://www.statcentral.ie/viewStat.asp?id=38>