
Frank Houghton
Department of Geography, NUI, Maynooth and Department of Public Health, MWHB

ABSTRACT
Since 1864, some 135 reports have been produced examining marriages, birth and deaths for Ireland. The reports produced during the period prior to World War I are notable for the maps and charts that are included and the level of detail provided. Recent reports have failed to include mortality maps, while those produced since 1950 generally show a declining level of detail.

Key index words: report on vital statistics, mortality, maps.

The first annual report of the Registrar General for Ireland examining marriages, births and deaths was produced for the year 1864 (prior reports of the Registrar General exist, but do not include mortality data). To date 135 such reports have been produced. The titles of these reports may have changed occasionally over the years, but throughout this period the basic information provided has remained essentially the same, excluding the obvious effects of partition.

One noticeable feature of recent annual reports on vital statistics produced by the Central Statistics Office has been the absence of any mortality maps. Such maps, when produced skillfully, can easily convey essential health information to readers far more easily and succinctly that the countless pages of tables that constitute the bulk of such reports. An analysis of the 135 reports covering Ireland, the Irish Free State, the Republic of Ireland revealed that not only had such maps historically been included in such publications, but also that the level of sophistication in both analysis and presentation included in such maps appears at its zenith almost one hundred years ago.

The first inclusion of a map in an annual report of the Registrar General for Ireland appears in 1899. The substantial delay that exists between the first report on vital statistics detailing mortality and the appearance of this first map is somewhat surprising given the emphasis on the relationship between environment and health noted in the first ever census report on the status of disease conducted in 1851.

"Viewed in a statistical aspect, the investigation of... species of permanent disease leads us to inquire into its extent and distribution, and, as far as possible, its causes also; its proportion to the general population, and the relative proportion of the sexes affected — their education, and susceptibility to education, both literary and industrial — the class of the community which it chiefly affects, and the localities where it principally prevails; in order to see whether geological position, soil, aspect, elevation, humidity, dryness, salubrity or insalubrity of climate, density or paucity of population, unhealthy crowded cities, or open fertile plains, acquired disease, hereditary predisposition, family peculiarity, or the consanguinity of parents, may have in any way conduced to the development and propagation of this malady"

(Census of Ireland for the year 1851).
Those familiar with medical geography will see the similarity between the above statement and the now famous passage by Hippocrates on ‘airs, waters, and places’ that is often quoted as the basis of medical geography.

The impressive colour map (using both red and blue ink) included in the 1899 report details the death rate from tuberculosis per 10,000 population for that year by Poor Law Union, or Superintendent Registrar’s Districts (there are over 150 of these). The map colour codes areas into six groups based on the death rate from TB, with three groups being above the national mean TB death rate, and three below it. This map, which is of an impressive size, covering a page slightly larger than A4, includes the name and TB death rate for each Union/District. Similar maps were included in the annual reports for the years 1900 and 1901, only to disappear between 1902 and 1904.

Unfortunately colour maps have never re-appeared in any annual or decennial report on vital statistics. Reports produced around the late 1800s and early 1900s demonstrate an impressive level of sophistication with the inclusion of colour graphs, as well as the use of white on black for graphs. Graphs detailing separate rates by gender over time are also a feature of this period.

The 1906 annual report however, although failing to include any colour maps, does include an impressive black and white map detailing infant mortality among children aged less than one per 1000 over the five-year period 1902-1906. This extra large map folds out to a size of approximately 28cm by 35cm and details rates by Poor Law Union and Superintendent Registrar’s Districts.

No maps were included in the annual reports between 1907 and 1910. However reports for the years 1911 to 1914 each included at least one full page (larger than A4) black and white map detailing either death from TB per 1000 by county, or county-level infant mortality information. The annual report for 1913 includes such maps for both infant mortality and TB. These maps produced in the pre-World War I years are detailed, incorporating shading to represent five levels of rates. In addition each county has its rate clearly marked on the map and separate rates are also included on the map for all of Ireland’s county boroughs. This is an important detail lost in the majority of current mortality analysis in Ireland: In 1913, for example, the mortality rate per 1000 resulting from TB in Cork county was 2.14, whereas the rate for Cork county borough was the highest on the island at 4.08. Had these rates been amalgamated this black-spot of TB mortality would undoubtedly have remained hidden.

Following 1914 there was an extended period (36 years) in which no maps were included in the annual reports. This omission may at first have been the result of either labour shortages resulting from World War I, or instability following the Easter Rising. Evidence of a dramatic change in reporting format may be seen in the drastic reduction in the length of the reports at this time. The 1913 and 1914 reports were both at least 167 pages in length. However the report for 1915, which would have been completed in 1916 is only 73 pages in length, with those for the following two years being just 59 pages long.

From 1950 until 1975 a monotone map detailing standardised all cause death rates per 1000 people at county level was introduced. These maps are bland and contain no county identifier, although most are an adequate size. From 1950 until 1958 the maps detail five levels of death rates, but from 1959 the level of detail included declined to four levels of death rates. The report for 1976 is something of an anomaly in this period as no maps were included. Although the annual reports for the years 1977 to 1981 all include at least one
monotone map of age standardised death rates, it is important to note that once again the level of detail contained in such maps has further declined. From 1977 until 1987 any maps included in the annual reports detailed just three levels of death rate.

From 1982 until 1987 two maps were included in the reports although these were now of a reduced size. These maps detailed standardised death rates from cancer and all causes for single years. In 1987 these maps were further reduced in size. The three years from 1988 to 1990 marked a new departure in the mapping of death rates from both cancers and 'all cause' deaths. During this period two sets of maps were included in each edition. Each set contained three monotone maps detailing death rates from cancer or 'all causes' for the last three years. These maps showed an improvement in the level of detail provided as they all included four levels of measurement. However this improvement is hindered by the small size of the maps presented (three per A4 page) and the use of just one year's worth of data to create each map. From 1991 until the most recent report (1998) no maps have been included in the annual reports on vital statistics.

This analysis of mortality maps included in the annual reports on vital statistics clearly demonstrates a highpoint of mapping between 1899 and 1914. From 1950 onwards when limited mapping was reintroduced into the reports the pattern seems largely to have been that of declining levels of detail. The maps produced between 1988 and 1990 may appear to defy this generalisation. However the inclusion of three small maps, each using just one year's data, detailing rates for the whole population on such broad conditions, serves to only hinder comprehension and analysis. The absence of any maps from 1991 onwards is an unfortunate counterpoint to the level of sophistication achieved more than 80 years ago. The Central Statistics Office have neglected a valuable avenue for disseminating information on mortality in Ireland. Such maps can prove a useful tool for health and public health workers, as well as clearly and concisely conveying information at large. As health has progressively become an increasingly important political issue the absence of the inclusion of mortality maps in recent years, despite decreasing hardware and software costs associated with computerised mapping, raises questions over the political manipulation of such reports.