## **Geographical basis of Vital Events statistics**

The National Records of Scotland (NRS)'s Vital Events statistics represent the numbers of events which were registered in Scotland. All Vital Events which occur in Scotland should be registered in Scotland, even if the people involved are residents of other countries. For example, if an American tourist dies in Scotland, the death should be registered in Scotland.

NRS's Vital Events statistics do not include events involving Scots residents which have occurred outwith Scotland. For example, the death in England of a resident of Scotland is not included in NRS's Vital Events statistics (it would be counted in the number of deaths in England, which is published by the Office for National Statistics).

The starting-point for more detailed geographical breakdowns of the statistics of births, stillbirths and deaths is usually NRS's categorisation of the person's country of residence. This is based on NRS's understanding of where the mother lives (for births and stillbirths) or where the deceased lived (for deaths).

Statistics of births, stillbirths or deaths for areas within Scotland (such as Council and Health Board areas) are usually based on where the mother/deceased lives/lived, provided that it is within Scotland (in such cases, non-residents of Scotland are counted on the basis of where the event occurred). Users of statistics of births, stillbirths and deaths should assume that they are on this basis, unless something different has been specified.

Occasionally, NRS produces statistics of births, stillbirths and deaths which are on other bases, such as broken down by the hospital or the Health Board in which the event occurred. In such cases, NRS describes clearly the basis of the statistics.

Because a marriage or a civil partnership involves two people (neither of whom need be resident in Scotland), statistics of the numbers of marriages and civil partnerships for areas within Scotland are usually based on where the events occurred.

NRS also produces statistics of the numbers of marriages cross-classified by relevant information about the bride and the groom, such as their countries of birth.

Notes on other points which relate to the geographical basis of the data are available as follows:

- Information available about where the person lives or lived
- Administrative areas Local Authorities and NHS Boards
- Datazone codes
- Urban / rural classification

# Please refer to:

 Fluctuations in, and possible unreliability of death statistics for small areas, for small groups or for short periods

## Information Available About Where The Person Lives Or Lived

This note describes the information which the National Records of Scotland (NRS) uses to determine the country of residence (and, for residents of Scotland, the appropriate area within Scotland).

## Births and stillbirths

When births and stillbirths are registered, the address of the usual residence of the mother at the time of the birth/stillbirth is recorded. (In a very small number of cases, this may not be known: if so, it can be counted on the basis of where the baby was found.)

#### **Deaths**

In the case of deaths, deciding where the person lived is more complicated, because each death record on the NRS database can have up to three addresses relevant to the deceased person:

- Place of death
- Usual residence at time of death (which may be the same as the place of death)
- Former residence (this need only be recorded if the person had lived there within the past 12 months)

A place of residence can be an ordinary household, a hostel, a care home, a hospice or any other kind of place where people live. The Registrar asks about the duration at residence for each of the addresses which is given by the person who registers the death, and also asks for the name and address of the deceased's doctor.

As an example, in the case of someone whose health had been deteriorating and who had moved to live with a relative a few months before dying in hospital, the following information might be collected when the death is registered:

- Place of death name and address of hospital 1 week duration;
- Usual residence at time of death address of relative 7 months duration:
- Former residence address prior to moving in with relative 15 years duration;
- Deceased's doctor name and address of GP serving relative's area.

In cases where more than one address is provided, NRS chooses the address it will use for the purpose of producing statistics based on where the person lived. The usual residence address is the one most often chosen, but in some circumstances one of the others will be chosen instead. For example:

- If the deceased had lived at his/her usual residence for less than 12 months, the address of the person's former residence will usually be chosen, assuming that the deceased had lived there for at least 12 months.
- In cases where the deceased had not lived at any of the given addresses for more than 12 months, the address lived at for longest will usually be chosen.

However, for a person who had moved into Scotland within the past year.

- The Scottish address will be chosen if the deceased had registered with a GP in Scotland, even if the person had lived in Scotland for less than 12 months.
- If the deceased had not registered with a GP in Scotland, the former address would usually be chosen. However, the Registrar may occasionally include a note about where the informant regarded the deceased as living, which informs the choice of where to count the person as living.

From time to time, there are cases which are particularly unusual. These require the judgement of NRS's coders, who will look at the individual circumstances and choose what seems to be the most appropriate address, in the light of the information that is available to them.

## Administrative Areas - Local Authorities and NHS Boards

In some Vital Events statistical outputs, the term 'administrative areas' is used to refer to Local Authority (Council) and NHS Board (Health Board) areas.

The current local authorities came into being on 1st April 1996 (NB: prior to 1 January 1998, the local authority now known as Eilean Siar was called Western Isles). The National Records of Scotland (NRS) can produce some statistics for the areas of the current local authorities for the years from 1974 to 1995 because it allocated retrospectively the codes for the current local authorities to its data for those years, to the extent that this could be done (e.g., it was not possible to determine the current local authority for around 1% of deaths in each year from 1974 to 1990 - the figure varies from year to year, between 0.8% in 1984 and 1.2% in 1989).

Broadly speaking, the current NHS Health Board areas were introduced on 1st April 1974. The exception is that, from 1 April 2006, responsibility for the former NHS Argyll and Clyde Board area was split between NHS Highland (which became responsible for the parts that were in the Argyll & Bute local authority area) and NHS Greater Glasgow (which became responsible for the rest), and the latter was then renamed Greater Glasgow and Clyde. Tables which are produced now for the NHS Board Areas show the 'new' areas. While the Vital Events statistical database continues to hold the 'old' codes for the NHS Boards for 2006 and earlier year, statistics for the 'new' areas can be derived by using the 'old' NHS boards codes in conjunction with the local authority code.

#### **Datazone Codes**

Datazones are groups of 2001 Census output areas, and were introduced in the early 2000s. A prototype Scottish Neighbourhood Statistics (SNS) system was introduced in 2003, and the then Scottish Executive released a full SNS web site (including, its news release said, statistics from the National Records of Scotland (NRS), formerly the General Register Office for Scotland (GROS), on births, deaths and population estimates) on 22 June 2004.

Datazones were added retrospectively to the Vital Events data, to the extent that this could be done using the information that was held in the Vital Events statistical records. For example, there will have been cases where the postcode that was recorded when the event was registered did not exist by the time that the datazone codes were to be added retrospectively, and it was not known into which datazone that postcode would have fallen, had it continued to exist. There may also be cases where what was given to the Registrar as a postcode was not actually a valid postcode, or where it was recorded incorrectly, with the result that it was not possible to determine the appropriate datazone code.

In the case of the Deaths data, the result is that there is a datazone code for almost every record for 1999 onwards (the exceptions being one record in 2001, and two in 2005). However, datazone codes are not available for 1%-2% of the deaths which were registered in earlier years. The figure varies from year to year. 1990 is the year with the highest percentage of records lacking a datazone code (1,505 out of the 61,527 deaths); for most years, the datazone code is missing for between about 600 and 900 deaths; some years are above this range, and other years are below.

## **Urban/Rural Classification**

The Vital Events statistical database includes two variables (called 'urbrur6' and 'urbrur8') which hold the values of the Scottish Household Survey (SHS) urban/rural classifications (6-fold and 8-fold) for the area. These SHS classifications were introduced in (or shortly after) 1999 (the survey started in February 1999).

The SHS urban/rural classification codes were added retrospectively to the Vital Events data, to the extent that this could be done using the information that was held in the Vital Events statistical records. For example, there will have been cases where the postcode that was recorded when the event was registered did not exist by the time that the urban/rural codes were to be added retrospectively, and it was not known into which urban/rural category that postcode would have fallen, had it continued to exist. There may also be cases where what was given to the Registrar as a postcode was not actually a valid postcode, or where it was recorded incorrectly, with the result that it was not possible to determine the appropriate urban/rural code.

In the case of the Deaths data, the result is that urban/rural classification values are available for all but an odd case for 1999 onwards, and are missing for 1-2% of cases for 1998 and earlier years (the figure varies from year to year: 1990 has the largest number of deaths for which the SHS urban/rural classification is missing - 1,505).

The reliability of the classification will decrease the further back one goes, because the nature of the area might have changed significantly between the year in question and the year upon which the SHS classification was based (e.g., an area which was rural in, say, the 1980s might have been used for housing developments during the 1990s, and so might be classed as 'urban' in the SHS classification produced around 2000 - in which case, it would wrongly be counted as being urban in every year back to 1974 when the National Records of Scotland (NRS), formerly the General Register Office for Scotland GROS, retrospectively applied the SHS classification to the data for earlier years).

The Vital Events data also include a variable (called 'urbrurcd') which uses an earlier urban/rural classification. However, that has not been allocated to any data for 2001 or later years, and so is no longer used.