A DUTCH GEOGRAPHY OF DEATH: INTRODUCTION TO THE 2006 MAPS

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INTRODUCTION

In the period 2005 to 2050, the population of The Netherlands is expected to have grown with 4% to 16.9 million inhabitants. At the same time, the number of deaths will have increased with no less than 65% (CBS 2005). This sharp increase is a direct result of the ageing of the so-called 'baby boom generation', the term used to label the generation born between the end of the Second World War (1945) and 1970. It can be expected that the death rate in The Netherlands will exceed the birth rate for the first time in 2025.

The increase in the amount of deaths from 136,553 in 2004 to approximately 225,000 in 2050 will have a number of consequences for Dutch society. Even though death is no longer a taboo subject, the exposure of society as a whole and individuals to increasing numbers of ageing, dying and dead people will increase. This in turn will make death more present in society at large – which is in contrast with the situation in the 1960s and 1970s, when death was characterized by *absence* rather than *presence* (cf. Mellor 1993). From an economic point of view, the undertaker business will become more important. Just as death is a biological certainty, it can be readily assumed that the 2004 number of 5,700 jobs in the 955 funeral establishments in the country will experience a steady increase in the years to come (CBS 2005).

In terms of geography, the amount and use of space for the dead will need to be reconsidered. Will the present 4,000 hectares of cemetries be sufficient, or is it necessary to zone more *dead space*? Or, alternatively, will the use of existing cemetries need to be intensified by, for example, removing graves sooner? Should the present trend of a slow but ongoing increase in the relative share of cremations compared to burials be stimulated? In 2003, the amount of cremations exceeded the amount of burials for the first time in Dutch history (CBS 2004).

This year's series of *The Netherlands in Maps* will explore various dimensions of the Dutch geography of death. The first map, included in this issue, visualises spatial variations in death rates in 2004. In subsequent maps, regional variations in death causes and shares and fees of burials and cremations will be presented.

PLACES FOR THE DEAD

Before 800, most of the dead in The Netherlands were burned. With the arrival and spread of Christianity, cremations were gradually replaced by burials. The first cemetries were located outside settlements, but soon graves were placed in churches or in the churchyards adjacent to the churches. In the late 18th century, the presence of graves in the church buildings was seen to be less desirable for reasons of hygiene. Initiatives were taken to establish 'country cemetries' outside the built-up areas. In 1829, a law was issued to ensure that all cities and

towns with a population size of 1,000 or more should have at least one cemetry available outside the built-up area (RDMZ 2005). The past geography of cemetry locations can therefore be summarized "out of, in and again out of" cities. In the last decades, population growth and urban expansions into the former countryside have ensured that many cemetries have literally been incorporated into the built-up areas.

At present, prices for funerals and cremations in The Netherlands increase steadily and sharply, in some municipalities with 200 to 300% in one year. Undertakers explain that their production costs have increased due to rising municipal fees, the lack of space for cemetries and changes in labour regulations. Between 2003 and 2004, the average price of graves – the so-called "grave costs", including the actual burial, a 20 year right on the grave and the municipal fee for the placement of a memorial stone – increased with 8%; the average fees in 2005 increased by 15% (Monuta 2005). Many cemetries are owned and operated by municipalities; municipalities may charge fees that reflect the maximum real costs. By law, municipal cemetries are not allowed to make a profit on burials, but they do have the possibility to use other local sources of income to subsidize the burial fees. The overall effect is that grave costs differ strongly between municipalities. In 2005, the cheapest municipality to be buried was Bellingwedde in the Northern province of Groningen. The price for a grave in this small municipality is € 197, compared to € 5,029 in the municipality of Moordrecht in the Randstad province of Zuid-Holland (Monuta 2005). In other words, a burial in Bellingwedde is only 4% of the price of a burial in Moordrecht.

DEATH RATES IN THE NETHERLANDS

The current Dutch death rate is 8.4 deaths per 1,000 inhabitants (CBS 2005). The twentieth century witnessed a drop of the death rate from 17.9 deaths per 1,000 in 1900 to 8.7 in the 1930s, and a further decline to 7.5 in the 1950s. Since then, the birth rate has shown a small but gradual increase, due to the declining birth rates and the slow ageing of the population (cf. Figure 1).

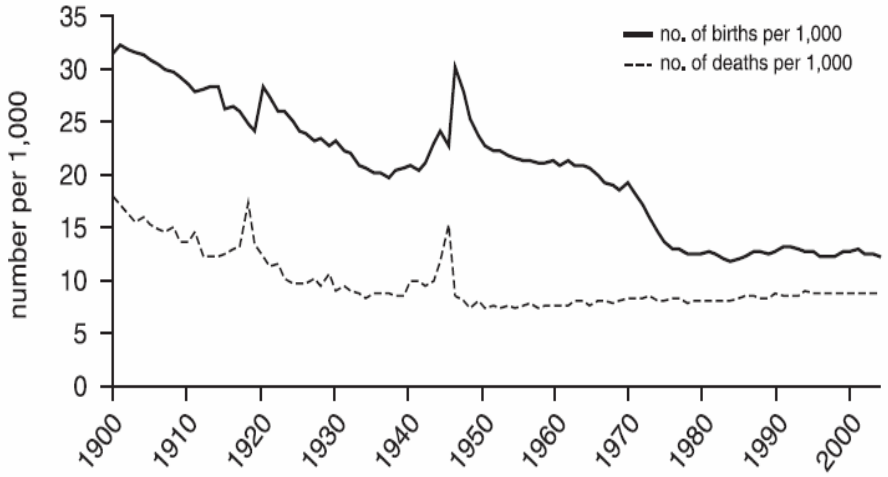

Figure 1. Birth rates and death rates in the Netherlands, 1900–2004

Spatial variations in death rates between the twelve Dutch provinces vary from a low 5.1 deaths per 1,000 inhabitants in the young and growing province of Flevoland in the centre of the country to high values in the border provinces of Drenthe (9.1), Groningen (9.2), Limburg (9.3) and Zeeland (9.6). On the level of the 483 municipalities, the extreme values are a high 20.2 in Warmond (a small village near the Randstad city of Leiden) and a low 3.3 in Eemnes

(a small village to the North of Utrecht). In the group of small and medium-sized municipalities, the presence or absence of homes for the elderly can have a significant influence on the age structure of the local population, and therefore on the death rates. For these reasons, we have presented two different maps of the municipal death rates in this issue:

- The first map presents the amount of deaths in 2004 related to the total population size in that year. This map presents, in a straightforward manner, the death rates; no corrections are made for the age or gender structure.
- The second map takes account of the age structure, specifically the age group of 65 years and older. The death rate is calculated for the population up to 65 years of age.

The first map reveals above average death rates in a majority of the municipalities in the Northeastern region, as well as in smaller pockets in the Southwest, the Southeast and along the Northsea coast. Lower then average death rates are concentrated in a corridor starting in the Northern part of the Randstad province of North Holland, extending Southwards to the so-called "Green Heart" area South of Amsterdam, then making a slight turn to the Southeast before broadening to a large area including the Southern area of the province of Gelderland, almost all of the province of Noord Brabant and the Northern parts of the province of Limburg. It is exactly in this corridor that the age structure of the majority of the municipalities is characterized by lower than average shares of the age group of 65 years and up.

The second map presents death rates for the population younger than 65 years of age. The amount of deceased persons younger than 65 is related to the total population size < 65 years. The 'low death rate corridor' of the first map is now less easy to identify. The resulting map reveals an U-shaped area where death rates in the 0-65 year age group are higher than average. The Western part of the U is thin; the Southern and Eastern parts of the U are thick. This area of higher than average death rates consists of municipalities alongside the Northsea coast, including the larger area aroimd Rotterdam; Southern municipalities in the border corridor with Belgium to the South and Germany to the East; almost all municipalities in the Betuwe and Achterhoek regions; as well as the Eastern and Northern provinces of Overijssel, Drenthe and Groningen.

DEATH CAUSES

As already noted above, death in itself is no longer a taboo subject in most advanced societies. This is, however, not true for all death causes. Suicides, non-traffic accidents, sex-related deaths and alcohol-related deaths are sometimes covered with the cloak of charity, simply not recognized as such, or not registered. In other cases, the registration of death causes is problematic. How to classify the death of a person who dies in a car accident caused by his own severe drinking? The primary death cause will be a traffic accident, but the underlying or secondary death cause is alcohol-related. In The Netherlands, doctors are required to report primary death causes, but they are free to report secondary death causes. About half of the death causes include a secondary death cause. For the case of alcohol related deaths, it has been estimated that inclusion of alcohol as a secondary death cause will double the amount of alcohol related death causes (Verdurmen *et al*. 2004).

Even though the Netherlands is a rather homogenous country when it comes to population composition, spatial variations in death causes can be observed. This will be presented in the second issue of this year's series. In the subsequent maps, we will zoom in on spatial variations of other aspects of the geography of death indicated above. The final issue of the 2006 volume of *Tijdschrift voor Economische en Sociale Geografie* will include a more detailed discussion on the Dutch geography of death.

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