



## Dying at home or in an institution Using death certificates to explore the factors associated with place of death

Joachim Cohen <sup>a,\*</sup>, Johan Bilsen <sup>a,b</sup>, Peter Hooft <sup>c,✕</sup>, Patrick Deboosere <sup>d</sup>,  
Gerrit van der Wal <sup>e</sup>, Luc Deliens <sup>a,e</sup>

<sup>a</sup> End-of-Life Care Research Group, Vrije Universiteit Brussel, Brussels, Belgium

<sup>b</sup> Centre for Environmental Philosophy and Bioethics, Ghent University, Ghent, Belgium

<sup>c</sup> Preventive and Social Health Care Division, Ministry of Flanders, Brussels, Belgium

<sup>d</sup> Faculty of Economic, Social and Political Sciences, Department of Social Research, Interface Demography,  
Vrije Universiteit Brussel, Brussels, Belgium

<sup>e</sup> Department of Public and Occupational Health and Institute for Research in Extramural Medicine,  
VU University Medical Center, Amsterdam, the Netherlands

### Abstract

**Introduction:** The knowledge of determinants of place of death is important for public health policy aimed at improving the quality of end-of-life care.

**Methods:** We investigated the influence of clinical, socio-demographic, residential and health care system factors on the place of death, using data from all 55,759 deaths in 2001 in Flanders (Belgium), gathered via official death certificates and data from anonymously linked health care statistics. A multivariate logistic regression was used to examine the associated factors (home versus hospital as dependent categories).

**Results:** Of all deaths in Flanders, 53.7% took place in hospital, 24.3% at home and 19.8% in a care home. The probability of home deaths varied by region, by rural or urban residence and by the hospital bed availability in the region and dying at home was less likely among those suffering from certain non-malignant chronic diseases, the less educated and those living alone.

**Conclusion:** Although most people wish to die at home, most deaths in Flanders (Belgium) in 2001 did not take place there. The clinical, socio-demographic and residential factors found to be associated with the place of death could serve as focal points for a policy to facilitate dying in the place of choice, including at home.

© 2005 Elsevier Ireland Ltd. All rights reserved.

**Keywords:** Belgium; Causes of death; Death certificates; End-of-life care; Home care; Hospital mortality; Palliative care; Place of death

\* Corresponding author. End-of-Life Care Research Group, Department of Medical Sociology and Health Sciences, Vrije Universiteit Brussel, Laarbeeklaan 103, B-1090 Brussels, Belgium. Tel.: +32 2 477 47 14; fax: +32 2 477 47 11.

E-mail address: [Joachim.Cohen@vub.ac.be](mailto:Joachim.Cohen@vub.ac.be) (J. Cohen).

✕ Deceased. Dr. Peter Hooft was a victim of the tsunami in Thailand on December 26, 2004. The final version of this article was completed after his disappearance, and he was thus not able to read or approve it.

## 1. Introduction

The place of death is presumed to be an important parameter of the quality of end-of-life care [1–5]. Interest in research about place of death often ensues from beliefs [3,6–8] and proof [6,9–11] of better overall end-of-life care for patients dying at home as well as better support for their next of kin. Some authors, however, dispute the a priori superiority of home death. Dying at home might not always be the best option and in some situations it might also be very stressful for others involved [12,13]. Nevertheless, most authors agree that a “good death” may be one which is as much as possible in accordance with the patient’s and family’s wishes [3,14–16]. Because, as is shown in research in other countries, there is an overall preference for dying at home [12,17–21], it is striking that few deaths occur there [18,22].

In this context it seems important for a public health policy that envisions the “good death” to study the place of death, but also to gain a better understanding of the reasons why people die where they do. Previous worldwide research highlighted a number of important determinants of place of death, but most of these studies focused on the death experience of cancer patients, were limited to specific settings of care or lacked robust statistical models [17]. In Belgium, very few and only rather limited studies of place of death have so far been conducted [23,24].

In this study we include the whole population of deceased inhabitants in 2001 in Flanders, the northern Dutch-speaking region of Belgium where approximately 60% of the population lives. Due to the use of death certificates we can use large numbers (i.e. more statistical power) which gives good insight into the issue of place of death in relation to other factors and gives a good basis on which to interpret more qualitative studies. We investigate where deaths occurred, and investigate the associations with the place of death, to be expected from literature [7,14,16,17,25–32], of clinical (e.g. cause of death), socio-demographic (e.g. age, presence of an informal caregiver, level of education), residential (e.g. degree of urbanization) and health care system factors (e.g. the number of available hospital beds in the region). Finally, we will formulate some research and policy implications of our findings.

## 2. Materials and methods

### 2.1. Study design and data

In this study we performed analyses on data gathered within the context of cause of death statistics and health care statistics in Flanders (the largest region in Belgium, with six million inhabitants and approximately 55,000 deaths per year). The analyses presented here are based on all 55,772 deaths in 2001 of Flemish residents aged 1 year or older.

#### 2.1.1. Death statistics

In Belgium, declaration of death is made via a death certificate issued by the civil registrar of the municipality where the death takes place. The physician completes the first part of the death certificate, indicating the sex of the deceased, medical information and time and place of death. The second part of the death certificate is completed by the civil registrar. This part contains information about the residence, age, education, occupation, nationality, civil status and living situation of the deceased. Before all information is processed, the causes of death on the death certificates are thoroughly checked by the regional health administration – if necessary by asking the attending physician for additional information – and coded (International Classification of Diseases, 10th ed., ICD-10). In some occasions the underlying cause of death, as indicated by the physician, is revised on the basis of this information. A number of additional error checks (e.g. via control for unlike information on record level, via sampled controls of the civil registrar, via a thorough control of the database) guarantee a good quality of data.

#### 2.1.2. Health care statistics

Various ecological health care statistics (number of general practitioners, number of available hospital beds and number of available care homes) on the level of municipalities, districts and provinces were consulted and were linked to the municipality or province codes on the death statistics file.

### 2.2. Data analysis

As dependent variable we used the variable “place of death” from the death statistics. The physicians could mark six options on the death certificate: home, hospital, care home, public road, workplace or “other”.

Download English Version:

<https://daneshyari.com/en/article/4199034>

Download Persian Version:

<https://daneshyari.com/article/4199034>

[Daneshyari.com](https://daneshyari.com)