11. MENTAL HEALTHCARE

11.1. Suicide rate (MH-1)

11.1.1. Documentation sheet

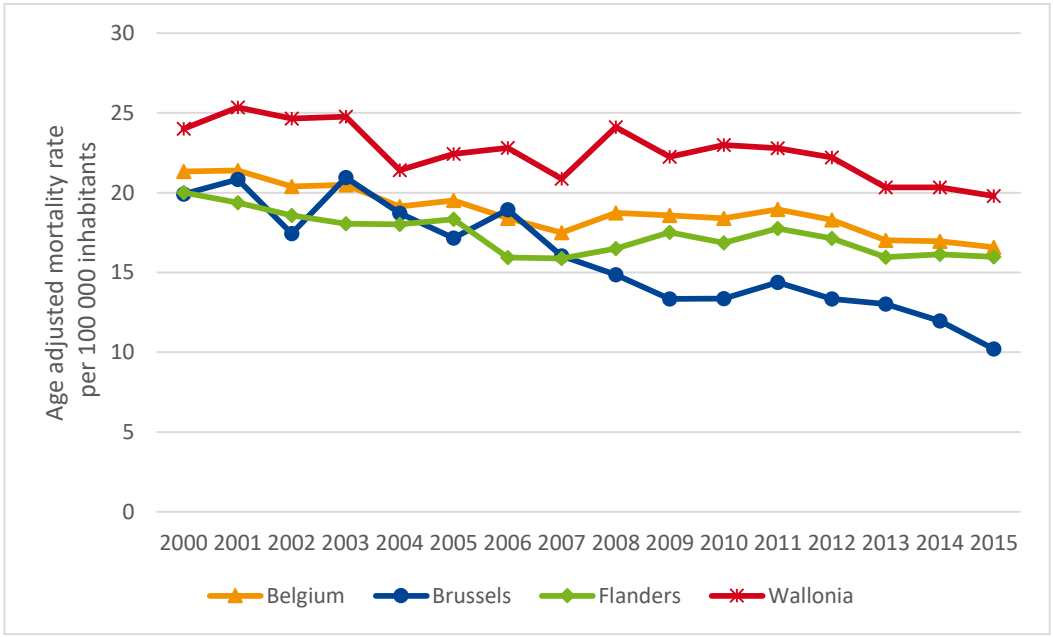
Description	Suicide, in the population per 100 000 inhabitants
Calculation	**Numerator**: number of deaths by suicide (x 100 000) **Denominator**: total population
Rationale	Suicide may be the end-point of a combination of psychological, social and demographic factors. It is more likely to occur during crisis periods associated with upheavals in personal relationships, through alcohol and drug abuse, unemployment, clinical depression or other forms of mental illness. Because of this, suicide is often used as a proxy indicator of the mental health status of a population (including the lack of well-being). However, it remains a controversial indicator because of the instability of suicide rates, difficulty in data collection and the lack of association between suicide and quality of care provided. [1] Therefore, it is recommended to use suicide rates in combination with other mental health related indicators. [2]
Primary data source	The primary data sources are the 2 regional databases of the death certificates (one for Flanders and Brussels, managed by the Vlaams Agentschap voor Zorg en Gezondheid, the other for Wallonia, managed by the Agence pour une Vie de Qualité, AViQ). Data are then pooled and organised at the Belgian level by Statbel. Finally they are transferred to Sciensano (department Public health and Surveillance). Numbers and rates (crude or age-adjusted) are published by the SPMA, an online interactive tool by age, sex, nationality and geographic entities. (https://spma.wiv-isp.be/).[3]
Technical definitions and limitations	Deaths by suicide are classified to ICD-10 codes X60-X84. Validity of the suicide certification depends of a number of reporting criteria; an important criterion in Belgium is the fact that a forensic investigation is carried out. It seems that this procedure has been delayed since a few years in Brussels, hampering the certification of some suicidal deaths that are coded as 'external events from undetermined intent'.
International comparability	The World Health Organization defines suicide as an act deliberately initiated and performed by a person in the full knowledge or expectation of its fatal outcome. Standardised population suicide rates are available in OECD Health Data (extracted from the WHO Mortality database). Comparability of data between countries is affected by a number of reporting criteria, including how a person's intention of killing themselves is ascertained, who is responsible for completing the death certificate, whether a forensic investigation is carried out, and the provisions for confidentiality of the cause of death. Caution is required therefore in interpreting variations across countries. Some countries, for instance, also include the death certificates with the ICD-10 codes Y10 - Y34 and Y87 (http://apps.who.int/classifications/icd10/browse/2010/en) in their suicide statistics. For this report, we only include the codes

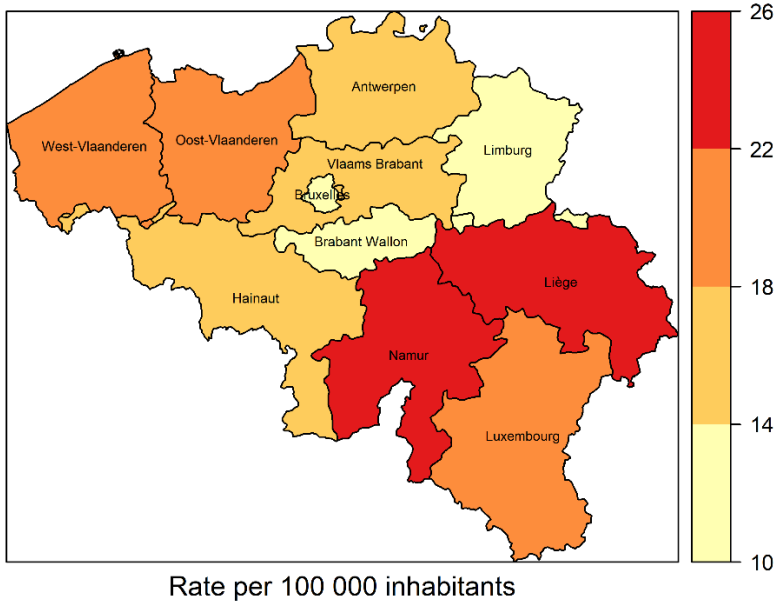
	specified by the OECD (ICD-10: X60-X84). Mortality rates are based on numbers of deaths registered in a country in a year divided by the size of the corresponding population. [4] OECD uses direct age-standardization methods to remove variations arising from differences in age structures across countries and over time and thus enhance international comparability. The source they use is the WHO Mortality Database, with the population 2010 as standard population.
Dimensions	Effectiveness of mental healthcare
Related indicators	Average daily quantity of medication (antidepressants /antipsychotics/ hypnotics and anxiolytics) prescribed

11.1.2. Results

Figure 154 illustrates that the number of suicides per 100 000 inhabitants in Belgium has decreased between 2000 and 2015 from 21.3 to 16.6. In addition, it is shown that this figure is considerably higher in Wallonia (19.8% in 2016) compared to Flanders (16.0% in 2016). In Brussels, the suicide rates decreased the most (from 19.9 in 2000 to 10.2 in 2015): this partly due to the fact that the cause of death has to come from a police report (otherwise it is reported as non-natural event of undermined intent), and since the end of the 2000s the reports are sometimes missing. In Flanders, a policy plan was designed to reduce suicide rates. A second version of this plan (2012-2020) aims to decrease the rate by 20% (compared to the rate in 2000) [5].

Figure 154 – Age adjusted suicide rate per 100 000 inhabitants (2000-2015) and per province (2015)

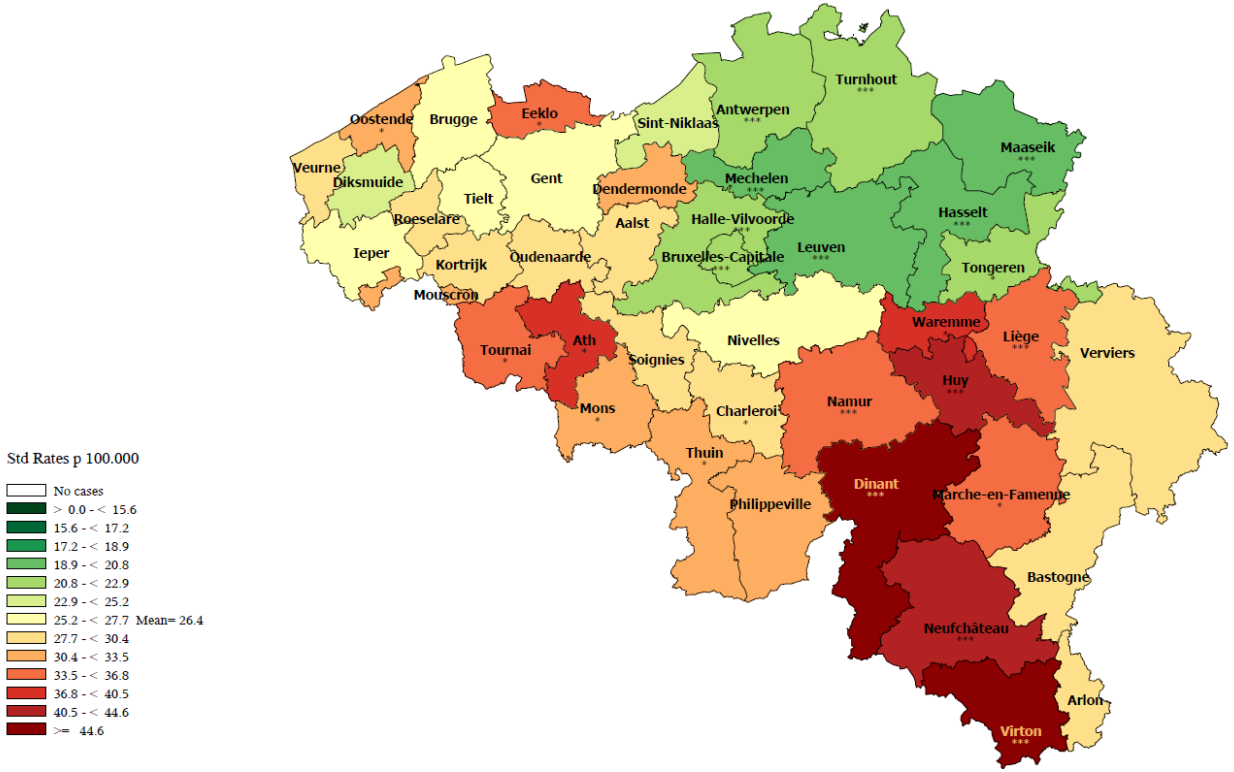




Source: Sciensano (SPMA:Standardized Procedures for Mortality Analysis – Belgium)
Note: Brussels decrease is partly an artefact (see text).

An analysis of the national data of premature mortality among men aged 1-74 years due to suicide shows that results are highly variable across the Belgian territory (see Figure 155). In Flanders highest rates are observed for the provinces West- and East-Flanders. In Wallonia, highest rates are observed in the provinces Namur and Liège.

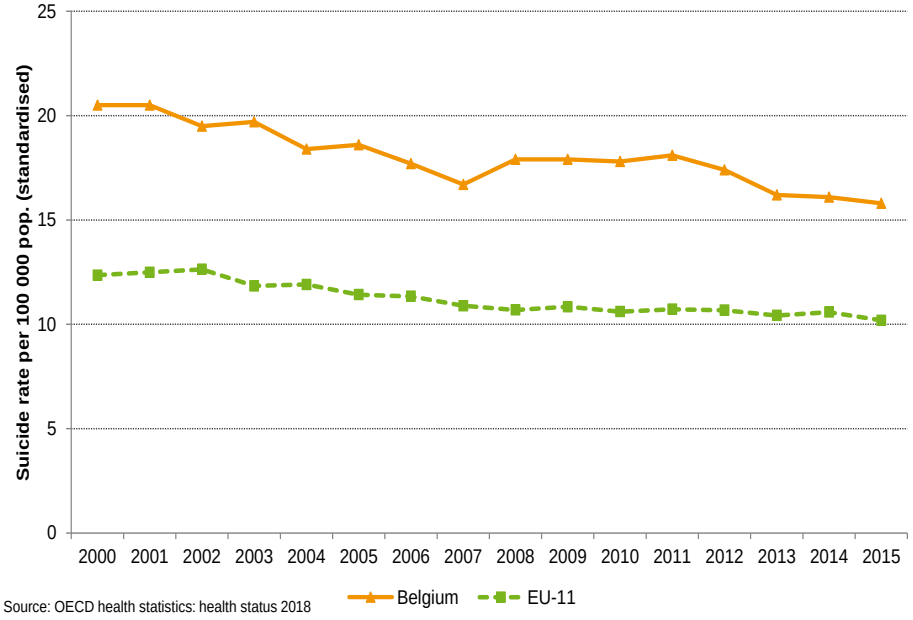
Figure 155 – Suicide Premature mortality in Men (1-74 year) (2003-2009)

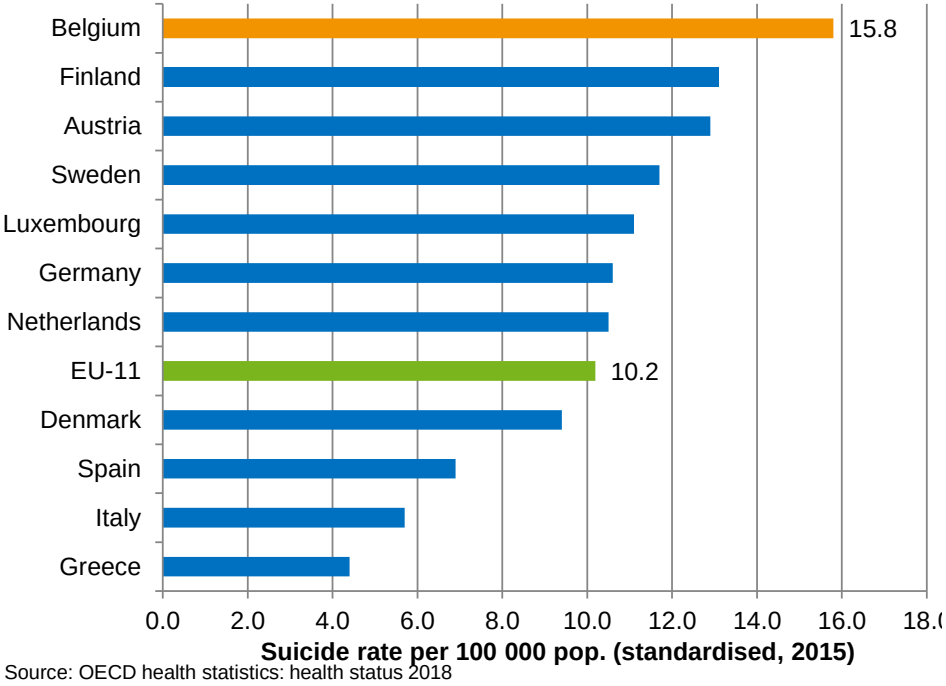


Source : [6]
Note: Age-adjusted mortality rates (standard Belgian population 2000)

It is clear from Figure 156 that the number of suicides per 100 000 inhabitants is remarkably higher in Belgium compared to the benchmark countries. This was already reported in the previous performance reports which stimulated the public authorities to take actions within the field of mental healthcare such as (1) improved support for primary care, (2) implementation crisis intervention teams, (3) better collaboration with emergency care services (e.g. in case of a suicide attempt) and (4) long-term follow-up (by mobile teams for chronic care) of persons with a history of suicide attempts. [7,8] Differences in rates for Belgium come from the fact that OECD and SPMA standardisations are different.

Figure 156 – Mortality rate due to suicide (per 100 000 population): international comparison (2000-2015)





Source: OECD health statistics: health status (2018)

Key points

- **A slight decrease in suicide rates can be observed in Belgium between 2000 and 2015: from 21.3 per 100 000 pop. in 2000 to 16.6 in 2015**
- **Suicides rates are higher in Wallonia than in Flanders, consistently over time. Brussels has understimated figures since 2008. Large geographical variations exist, both within the Flemish and the Walloon regions.**
- **Compared to other European countries, suicide rate in Belgium is relatively high**

References

[1] Desai RA, Dausey DJ, Rosenheck RA. Mental health service delivery and suicide risk: the role of individual patient and facility factors. Am J Psychiatry. 2005;162(2):311-8.

[2] OECD. Health Care Quality Indicators: background paper to the mental health subgroup meeting. Paris: Organisation for Economic Co-operation and Development; 2011.

[3] Public Health and Surveillance (Sciensano). SPMA [Web page]. [cited 3 January 2019]. Available from: https://spma.wiv-isp.be/

[4] OECD. Health at a Glance 2017: OECD Indicators. Paris: 2017.

[5] Rotsaert I, Pauwels K, van Heeringen C. Vlaams Actieplan Suïcidepreventie II 2012-2020 - Tussentijdse evaluatie. Vlaams Expertisecentrum Suïcidepreventie; 2017.

[6] Renard F, Tafforeau J, Deboosere P. Mapping the cause-specific premature mortality reveals large between-districts disparity in Belgium, 2003-2009. Arch Public Health. 2015;73(1):13.

[7] Fédération Wallonie-Bruxelles. Le portail de la prévention du suicide [Web page].2015. Available from: http://www.preventionsuicide.info/priorites/fwb.php

[8] Vlaams Agentschap voor Zorg en Gezondheid. Vlaams actieplan suïcidepreventie 2012-2020 [Web page].2012 [updated 08/02/2019]. Available from: https://www.zorg-en-gezondheid.be/vlaams-actieplan-su%C3%AFcidepreventie-2012-2020