Description	Percentage of the population aged 15 years and over with lifetime suicidal ideation							
	Percentage of the population aged 15 years and over (for HIS) or aged 18 years and over (COVID-19 and Belhealth) with suicidal ideation in the past 12 months							
	Percentage of the population aged 15 years and over with lifetime experience of suicide attempt(s) Percentage of the population aged 15 years and over that attempted suicide in the past 12 months							
Rationale	Suicide and suicide attempts are important society and public health issues. They have ripple effects on families, friends, colleagues, communities, and society. The strongest risk factor for suicide is a previous suicide attempt (1). Suicidal thoughts and suicide attempts are key moments to provide the necessary help to the person to prevent the suicide. Prevention of suicide has been prioritized by the World Health Organization (WHO) as a global target and prevention of suicide has been included as an indicator in the United Nations Sustainable Development Goals (SDGs).							
Primary Data source	COVID-19 health surveys March 2021, June 2021							
	Belhealth surveys February 2023, September 2023							
	Health Interview Surveys (HIS) 2004, 2008, 2013, 2018							
Indicator source	Sciensano: Health Interview Surveys (HIS), COVID-19 health surveys and Belhealth surveys							
Periodicity	COVID-19 health surveys: approximately every 4 months until June 2022							
	Belhealth surveys: every 4 months							
	HIS: every 3 to 5 years							
Calculation,	In the Belgian <b>HIS</b> , 2 main questions and 2 sub-questions were asked.							
technical definitions, and	<ul> <li>Have you ever seriously thought of ending your life? Yes several times/Yes once/No never.</li> </ul>							
limitations	If the answer to the previous question was 'Yes', an additional question was asked: 'Did you have such thoughts in the past 12 months?'							
	- Have you ever attempted to commit suicide? Yes several times/Yes once/No never.							
	If the answer to the previous question was 'Yes', an additional question was asked: 'Did you make a suicide attempt in the past 12 months?'							
	These percentages were weighted according to the survey design of the HIS.							
	In <b>Belhealth</b> and <b>COVID-19 surveys</b> , participants were asked whether they had seriously thought about ending their lives and whether they had attempted suicide in the 12 months prior to the survey.							
	In order to achieve a representativeness of the general population, data are weighted for age, with a different methodology between the two surveys.							
	<b>Limitations:</b> The evaluation of mental health problems through a general health survey has several limitations. These are mainly related to the fact that the estimates are based on screening instruments for psychological problems or the reporting of the individuals themselves, and thus are not obtained by clinical diagnostic							

# Metadata – Suicidal thoughts and suicide attempts

tools, which are often more nuanced. Nevertheless, the results of general population health surveys are generally in line with the findings of specific mental health surveys.

While the **COVID-19 Health Survey** used a mixed longitudinal and crosssectional approach (addressing the same participants and recruiting new ones at each data collection point), **BELHEALTH** uses a longitudinal approach (follow-up of the same cohort of participants throughout data collection points). It is important to note that the COVID-19 and BELHEALTH surveys were not designed to be fully representative of the Belgian population, but rather to track trends in mental health disorders within the study population.

International	a. Availability: No international comparable data are available for these
comparability	suicidal thoughts and suicide attempts.

## Metadata – Suicide deaths

Description	Number of deaths due to suicide in the population							
	Age-adjusted mortality rates due to suicide in the population							
	Share of the total deaths due to suicide in the population							
Rationale	Suicide and suicide attempts are important society and public health issues. They have ripple effects on families, friends, colleagues, communities, and society (1). Prevention of suicide has been prioritized by the World Health Organization (WHO) as a global target and included as an indicator in the United Nations Sustainable Development Goals (SDGs).							
Primary Data	National data:							
source	- Population: Statbel <a href="https://statbel.fgov.be/fr/themes/population">https://statbel.fgov.be/fr/themes/population</a>							
	<ul> <li>The cause of death (COD) database: Statbel, after pooling and consolidating the regional databases of COD</li> </ul>							
	International data: WHO mortality database							
Indicator source	National data: Own calculations based on the Statbel cause of deaths and population databases. International data: OECD calculations based on the WHO mortality database.							
Periodicity	Yearly							
Calculation, technical definitions and limitations	<ul> <li>Population</li> <li>The population covers legally registered resident that includes people registered in the RN, in the register of foreigners, and in the register of European officials. The coupling between deaths certificates and the registers allow Statbel to exclude nonresident deaths in Belgium and include residents deaths occurring abroad since 2010.</li> <li>Causes of deaths</li> <li>Deaths certificates are filled by doctors and municipality officers. Two regions (Brussels certificate are coded by Flanders) code the information provided in the medical certificate of cause of deaths into ICD codes. Then, data are pooled by Statbel and couple with deaths registered in the National population Register (RN) since 2010.</li> </ul>							

Causes of deaths data refer to the underlying cause which – according to the World Health Organization (WHO) – is "the disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury (2)." To ensure comparability, the framework used is the WHO International Classification of Diseases 10th (ICD10) (3). Flanders (including Brussels) and Wallonia code the underlying cause of death with the ICD-10 codes and rules; but their coding practices are slightly different and affect national comparability. Since no death certificate is available for Belgian residents dying abroad, the cause of death is unknown and they are registered as R99.

#### Indicators:

- Number of deaths due to suicide: number of deaths with the ICD-10 codes X60 to X84, Y870.
- Age-adjusted mortality rate due to suicide: the number of deaths due to suicide per 100 000 inhabitants. Age-specific mortality rates are a weighted average of age-specific mortality rates; there are weighted by the age distribution of a standard population to harmonize the comparison of mortality rates over time and between groups. We use the European Standard Population 2010 (ESP 2010) (3) as it allows comparability with EU statistics.
- Share of total deaths due to suicide: percentage of the total deaths by age and sex that is due to suicide, i.e. a death with the ICD-10 codes X60 to X84, Y870.

#### Limitations

Since suicides are commonly misclassified, these numbers can be underestimated (4–7). Misclassifications can occur: when the exact cause of deaths is unknown, suicide may thus be classified as 'unknown cause'; when the intention is not clear, suicide may thus be classified as 'deaths of undetermined intent'; when the intention is wrongly evaluated, suicide may thus be classified as 'accidents' or 'homicides'. It may also be possible that the doctor avoids mentioning the suicide to protect the family from different problems (insurance, administration, religion, ...). Moreover, the reasons for misclassification strongly vary across countries, which limits the interpretation of international comparisons

International comparability	a.	Availability: age-adjusted mortality rates due to suicide are available for OECD countries in the OECD database.								
	b.	Comparability: misclassification								
		otronally yory								

misclassifications. The above-mentioned reasons for misclassifications strongly vary across countries which limits the interpretation of international comparisons. These comparison should be taken with extreme caution.

### References

- 1. WHO. Suicide in the world. https://www.who.int/publications-detail/suicide-in-the-world 2.
- 2. WHO. ICD-10: International statistical classification of diseases and related health problems: Instruction manual. Geneva: World Health Organization; 2011.

- 3. Pace M, Lanzieri G, Glickman M, Zupanič T. Revision of the European standard population report of Eurostat's task force. Luxembourg: Publications Office of the European Union; 2013. http://epp.eurostat.ec.europa.eu/cache/ITY\_OFFPUB/KS-RA-13-028/EN/KS-RA-13-028-EN.PD.
- De Spiegelaere M, Wauters I, Haelterman E. Le suicide en Région de Bruxelles-Capitale: Situation 1998-2000. Brussels: Observatoire de la santé et du social de Bruxelles-Capitale; 2003.
- 5. Ohberg A, Lonnqvist J. Suicides hidden among undetermined deaths. Acta Psychiatr Scand. 1998 Sep;98(3):214–8.
- 6. Jougla E, Pequignot F, Chappert J, Rossollin F, Le TA, Pavillon G. [Quality of suicide mortality data]. RevEpidemiolSante Publique. 2002;50(1):49–62.
- 7. Moens GFG. The reliability of reported suicide mortality statistics: An experience from Belgium. Int J Epidemiol. 1985;14(2):272–5.