



1.1. Avoidable mortality: preventable mortality (P-13)

1.1.1. Documentation sheet

Description	<p>This sheet describes the two sub-indicators constituting the “avoidable mortality”:</p> <ol style="list-style-type: none"> 1. The treatable mortality 2. The preventable mortality <p>The concept of avoidable mortality is based on the idea that certain deaths (for specific diseases/conditions) among people aged less than 75 years could be 'avoided' or that their number could be reduced, if there had been more effective medical and public health interventions in place (1).</p> <ul style="list-style-type: none"> • Treatable mortality: Causes of death that can be mainly avoided through timely and effective health care interventions, including secondary prevention and treatment (i.e. after the onset of diseases, to reduce case-fatality). • Preventable mortality: Causes of death that can be mainly avoided through effective public health and primary prevention interventions (i.e. before the onset of diseases/injuries, to reduce incidence). <p>Avoidable mortality concerns exclusively deaths under 75 years old. Some causes of death can be prevented and treated once they occurred, in those cases they have been attributed to the preventable category. For a minority of causes of death, there is no strong evidence of predominance between treatable and preventable mortality, in which case a 50%-50% allocation was used (1).</p>
Calculation	<p>Treatable deaths are all deaths under 75 years old in Belgium with a treatable underlying cause of death as defined by the Eurostat/OECD list (1).</p> <p>Preventable deaths are all deaths under 75 years old in Belgium with a preventable underlying cause of death as defined by the Eurostat/OECD list (1).</p> <p>Age-standardised mortality rates are then calculated as the age-specific rates weighted by the European standard population then summed up and divided by the total standard population to obtain age-standardised rates, that allow for regional or between countries comparisons.</p>
Rationale	Avoidable mortality indicators, while not being definite measures of health system performance, are a good starting point to assess the performance of public health and healthcare policies in avoiding premature mortality from preventable and treatable causes of death (1).
Primary data source	Statistics Belgium, causes of death (COD) database
Indicator source	<p>For Belgium: own calculations (based on Statistics Belgium COD database)</p> <p>For international comparisons: Eurostat</p> <p>This can lead to slightly different results between the Belgian and the Eurostat results.</p>
Technical definitions	Since the introduction of the concept in the 80ths, many lists of causes for so-called “avoidable deaths” have been proposed. In 2018, an expert group from Eurostat and OECD develop a new joint list that built on earlier work carried out by researchers. The current work uses the revised list adopted by Eurostat/OECD (1).



The complete list of causes included in the preventable and treatable categories can be [consulted here](#) (1). For all causes, the upper age limit is 75 years.

Limitations

- The choice of the causes and the attribution of the causes to a category is sometimes discussable. The lists are revised regularly to integrate new knowledge. For example, since data 2020 COVID-19 is included as a preventable disease.
- Avoidable mortality is informing health system performance assessment but is not an exact measure of performance.
- The number of avoidable deaths is also likely to be influenced by other factors related to the likelihood that individuals may contract a disease or seek medical advice, such as education, social background, beliefs related to health, and costs of diagnosis and treatment (2).
- It is an aggregate measure that provides only global information but does not indicate what is to be addressed when there is evidence of suboptimal quality. This needs a more in-depth analysis (including a cause-specific mortality analysis and a qualitative assessment of the process) (3).
- The treatable mortality indicator does not take into account all the benefits of the health care interventions that are not only preventing death but meanwhile improving the quality of life.

International comparability

Availability: yes (Eurostat)

Validity: the validity of the comparison is hampered by (at least) two major causes:

1. Differences between countries can be partly due to differences in certification and coding of the cause of death; moreover, there are important differences between the countries in the quality of coding. Countries with a large proportion of poorly determined causes of death will have consequently fewer specified causes of death, those latter only constituting avoidable deaths.
2. The 'treatable mortality' does not account for differences in the underlying prevalence/incidence of the diseases.

Reviewer

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1.1.2. Results

1.1.2.1. Treatable mortality

see QE-8

1.1.2.2. Preventable mortality

Rates by sex and region

The age-standardised preventable mortality rate is two times higher in men than in women (sex ratio 2.1). The sex ratio was the highest in the Brussels-Capital region.

The preventable mortality is higher in Wallonia and in Brussels compared to Flanders; the regional disparities increased in 2020.

Table 1 – Age-adjusted preventable mortality rates, by sex, Belgium and regions, 2019-2020

Year	Sex	Belgium	Flanders	Brussels	Wallonia	Ratio Brussels/Flanders	Ratio Wallonia/Flanders
2019	Males	193.4	171.9	200.8	233.9	1.2	1.4
	Females	91.6	81.7	86.5	110.9	1.1	1.4
	Sex ratio	2.1	2.1	2.3	2.1		
2020	Males	243.1	200.9	292.7	313.3	1.5	1.6
	Females	113.8	96.0	127.3	144.6	1.3	1.5
	Sex ratio	2.1	2.1	2.3	2.2		



Figure 1 – Age-adjusted preventable mortality rates, by sex, Belgium and regions, 2019

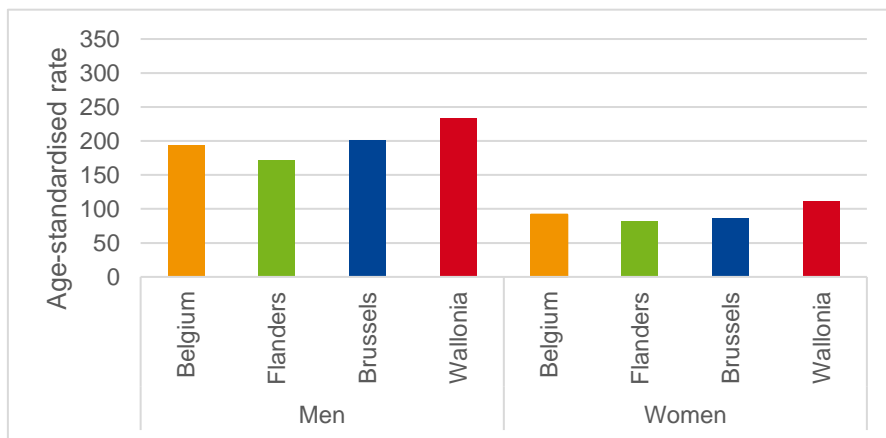
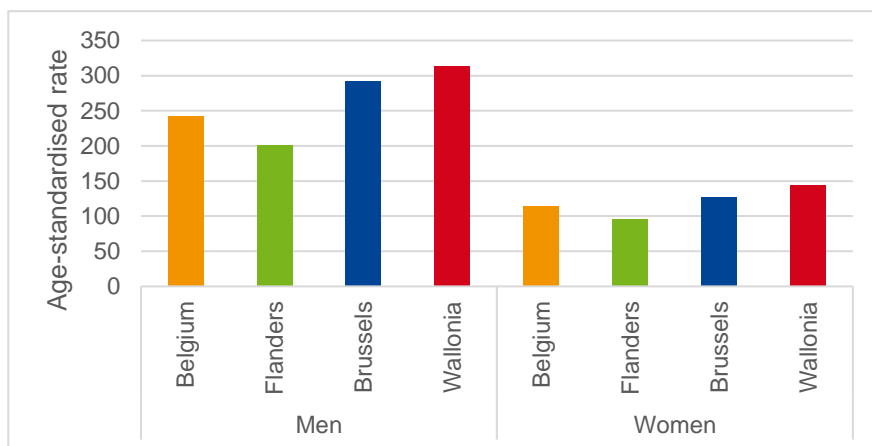


Figure 2 – Age-adjusted preventable mortality rates, by sex, Belgium and regions, 2020



Source: author's calculation based on Statbel causes of death database

Leading causes of preventable mortality

In 2020, the leading causes of preventable mortality in men and women are COVID-19 and lung cancer. In men, it is followed by suicide and in women, it is followed by chronic lower respiratory diseases. Except for the presence of COVID-19, the ranking was similar in 2019 for men and women.

Figure 3 – Leading causes of preventable mortality among men, 2019-2020

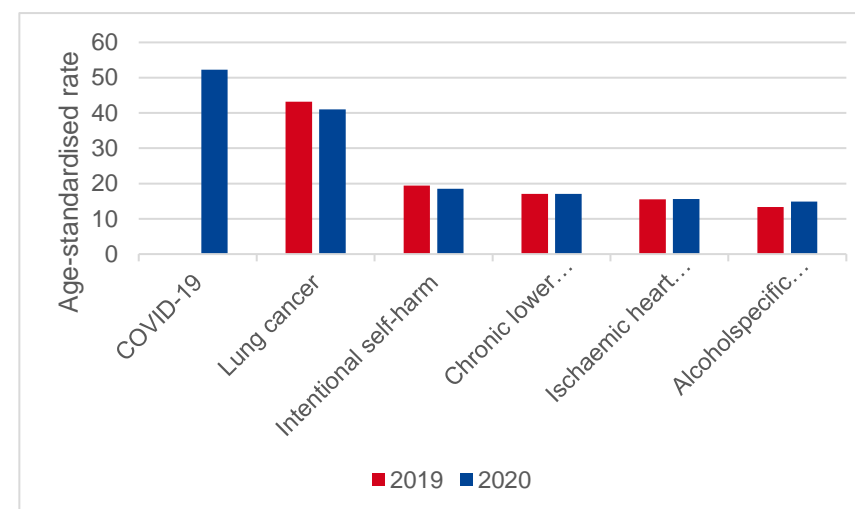
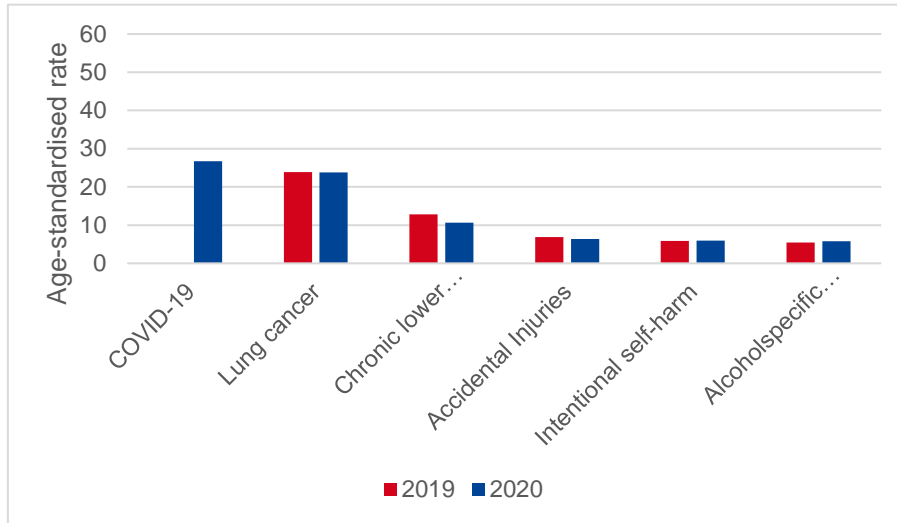




Figure 4 – Leading causes of preventable mortality among women, 2019-2020



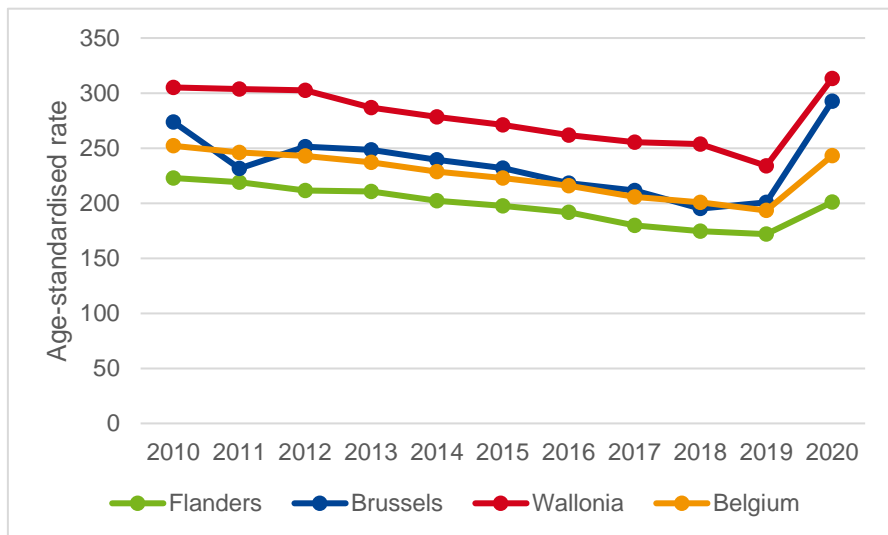
Source: author's calculation based on Statbel causes of death database

Evolution by sex and region over time and impact of the COVID-19 pandemic

Between 2010 and 2019, the preventable mortality rates decrease more in men than in women. In 2020, an increase in the preventable mortality rates is observed due to COVID-19 being added as a preventable cause of death. Except for men living in Flanders, preventable mortality rates in 2020 exceeded those in 2010.

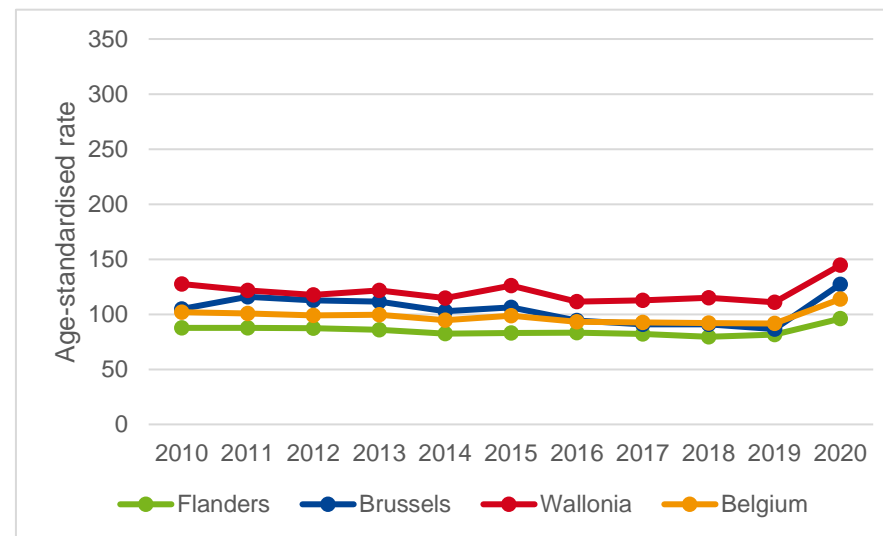


Figure 5 – Age-standardised preventable mortality rates among men, Belgium and regions, 2010-2020



Source: author's calculation based on Statbel causes of death database

Figure 6 – Age-standardised preventable mortality rates among women, Belgium and regions, 2010-2020

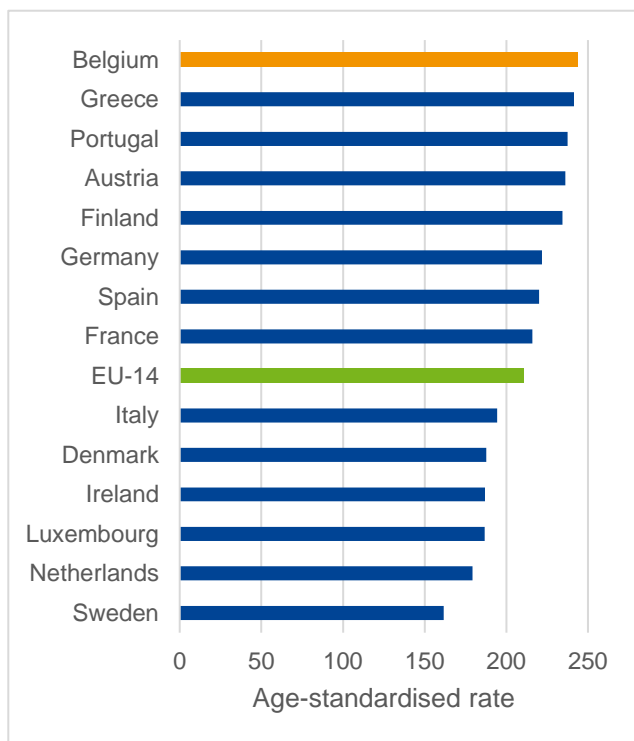




European comparison

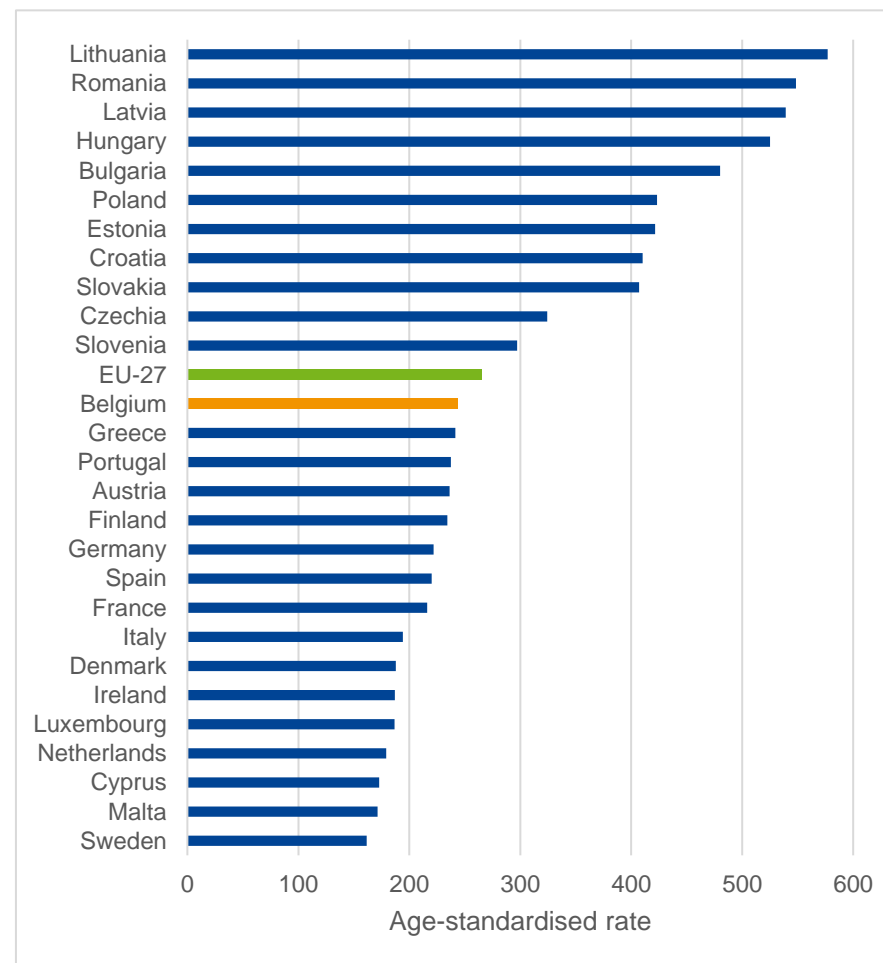
Belgium has the highest preventable mortality among EU-14 countries in 2020 in both sexes.

Figure 7 – Age-standardised preventable mortality rate among men, EU-14, 2020



Source: Eurostat

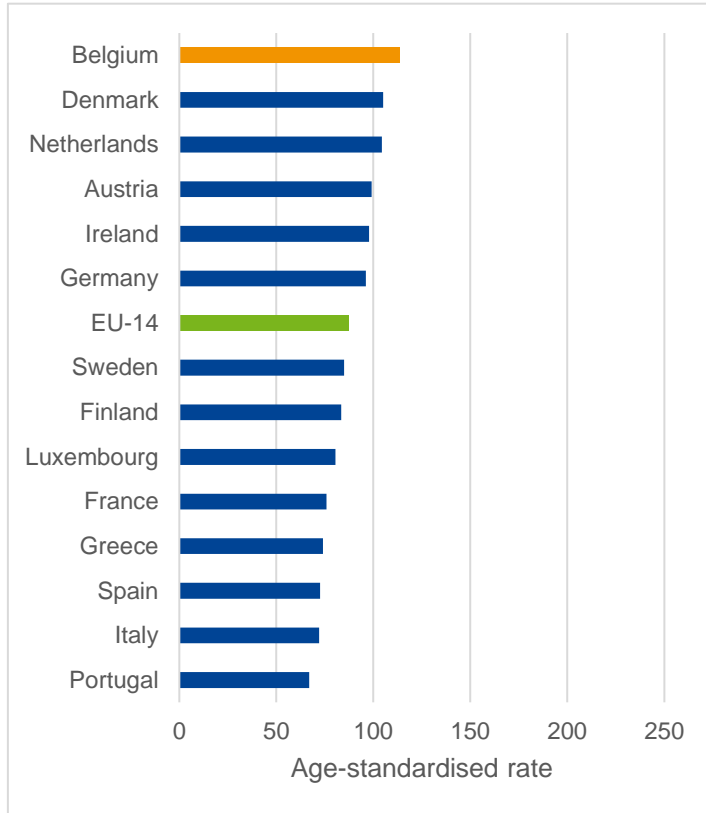
Figure 8 – Age-standardised preventable mortality rate among men, EU-27, 2020



Source: Eurostat

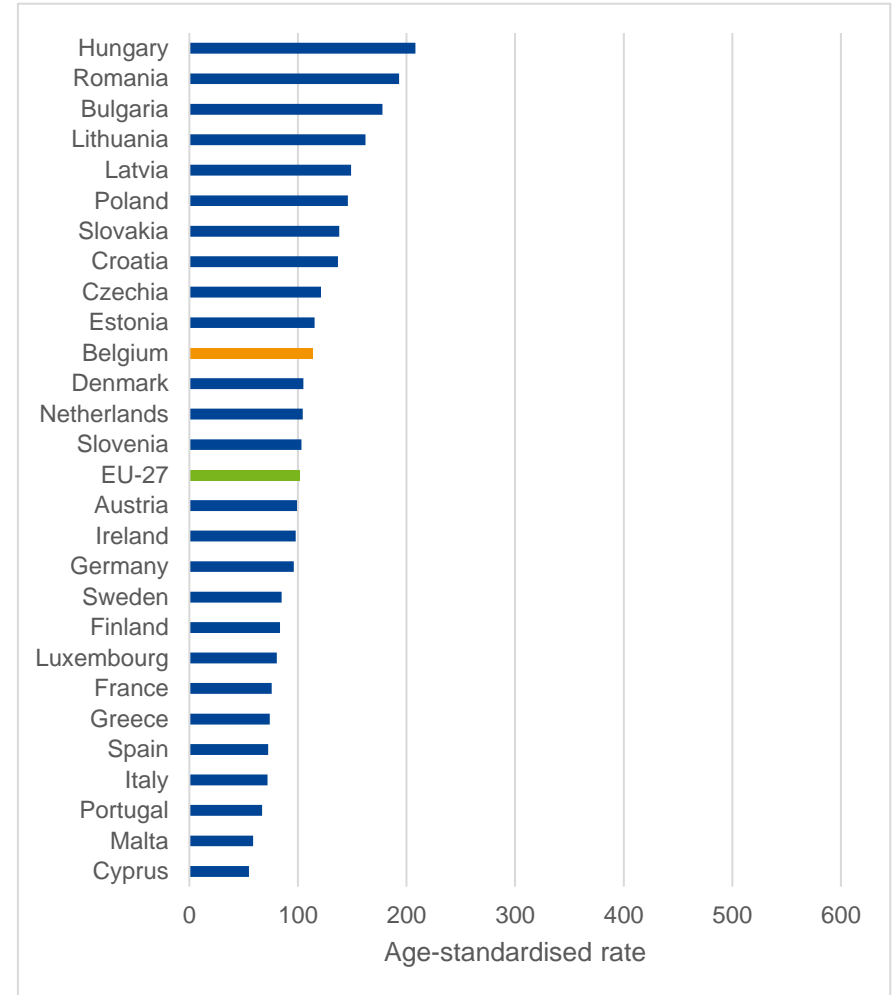


Figure 9 – Age-standardised preventable mortality rate among women, EU-14, 2020



Source: Eurostat

Figure 10 – Age-standardised preventable mortality rate among women, EU-27, 2020



Source: Eurostat



Key messages

- **There are regional differences in treatable and preventable mortality, with the highest mortality rates in Wallonia, followed by Brussels-Capital region, and Flanders.**
- **Preventable mortality is consistently two times higher in men than in women.**
- **The occurrence and consequent inclusion of COVID-19 as a cause of preventable death increases preventable mortality in 2020. Before 2020, preventable mortality is decreasing in men and constant in women.**
- **In comparison with the countries of the EU-14, Belgium compares well in treatable mortality. Conversely, Belgium has the highest rate of preventable mortality in the EU-14.**

References

1. Eurostat/OECD, Avoidable mortality: OECD/Eurostat lists of preventable and treatable causes of death (January 2022 version). 2022
2. Nolte E, Mckee M. Does Health Care save lives? Avoidable mortality revisited. London: The Nuffield Trust; 2004.
3. Nolte E, Mckee M. Population health in Europe: how much is attributable to health care? World Hosp Health Serv 2004;40(3):12-4, 40, 42.