



## 1.1 Colorectal cancer screening (% of people aged 50-74 years) (P-9)

### 1.1.1 Documentation sheet

<b>Description</b>	Proportion of persons (aged 50-74 years) having been screened for colorectal cancer within the last two years
<b>Calculation</b>	<p><u>Numerator</u>: Number of individuals in the denominator, having received a colorectal cancer screening in an organised program or with a colorectal cancer screening tests (fecal occult blood test, or virtual or total colonoscopy) only outside of an organised program within the last two years.</p> <p><u>Denominator</u>: number of individuals 50-74 years during the reference period minus individuals excluded for medical reasons</p>
<b>Rationale</b>	<p>In 2021 in Belgium, the age-standardised incidence rate of colorectal cancer was 36.1 per 100 000 person-years in males and 25.5 per 100 000 person-years in females (using European standard population).<sup>1</sup> Colorectal cancer is a frequent cancer (third cancer for men, third for women since 2021), with a high mortality if detected at an advanced stage. In 2003, the European recommendations on cancer prevention recommended to screen the population aged 50 to 74 years old.<sup>2</sup> In 2006, a Health Technology Assessment (HTA) report showed that colorectal cancer screening with faecal occult blood test (FOBT), followed by colonoscopy if FOBT was positive, was cost-effective in persons aged 50 years and older.<sup>3</sup> The organisation of the cancer screening programs is a competence of regional entities: in the French Community (Wallonia and Brussels), a screening programme was started in March 2009, and targeted persons aged 50 to 74 years old. Every two years, those persons are invited to undergo a FOBT (the faecal immunochemical occult blood test (iFOBT or FIT) since 02/2016)<sup>4</sup>, or directly a colonoscopy for individuals at high or very high risk.<sup>5</sup> In Flanders, since 2013, all persons of the targeted age group are invited to undergo a FOBT; the screening test used in Flanders is the iFOBT.<sup>6</sup></p> <p>The European guidelines state that &gt;45% of invited individuals who attend screening is acceptable and &gt;65% of invited individuals who attend screening is desirable.<sup>7</sup> One of the Europe's Beating Cancer Plan target is to have 90% of the EU population who qualify for colorectal cancer screenings are offered screening by 2025.<sup>8</sup></p>
<b>Data sources</b>	<p>Several data sources are used to calculate this indicator. The data are sent to the Belgian Cancer Registry (BCR) by the 3 organisations in charge of the screening programs.</p> <ul style="list-style-type: none"> <li>- Centre Communautaire de Référence (CCR; Walloon Region), Centrum voor Kankeropsporing (CvKO; Flanders), Bruprev (Brussels): for data on the target population and data on the screening in the program.</li> <li>- Central cyto-histopathological register of the BCR (CHP): cyto-histopathological data from the laboratories.</li> <li>- Cancer database of the BCR (CIB): for data of the cancer registration.</li> <li>- Intermutualist Agency (IMA-AIM): for data of the reimbursed care and medicines.</li> </ul>
<b>Technical definitions</b>	The target group eligible for colorectal screening: consists of the target population of the program (individuals 50-74 years residing in Belgium) minus individuals excluded for medical reasons. The age of an individual is based on the date of birth.



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Valid screening outside of the screening program include:

- Total colonoscopy: valid for in the 10 years in Flanders and for 5 years for Brussels and the Walloon region
- Virtual colonoscopy: valid for 4 years
- FOBT: valid for 2 years

At the national level: If a person is in the eligible target population of the program in Flanders and is covered by a total colonoscopy less than 10 years old but is also included in the target population of the program in another region (duplicate), the coverage criterion of Flanders has priority because the duration of exclusion is longer for total colonoscopy

Individuals excluded for medical reasons are individuals from the target population of the program who are not eligible for the screening due to their medical history:

- Permanent exclusion: total colectomy
- Temporary exclusion: diagnosis of colorectal cancer (invasive or in situ), no invitation for 10 years from the date of the colorectal cancer incidence.

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### Limitations

As screening programs are organised at the regional level, three different screening exists in Belgium. There is substantial variability between regions for participation in opportunistic screenings. Considering insurers can reimburse a medical service up to two years after the date of the service, that a certain period of time is required for administrative processing, and that the database closure is completed quarterly, the IMA-AIM database for a given calendar year will not be complete until 30 months after that year. This may affect both the denominator (exclusions for medical reasons) and the numerator (FOBT, total or virtual colonoscopy outside the program) in the years 2020 and 2021, but the impact is likely to be limited.

Individuals from the eligible target group who are not invited for screening in a given year because they were still covered by a valid screening test (FOBT or total colonoscopy or virtual colonoscopy) were not excluded.

As the method to calculate colorectal cancer screening rate was updated in 2020, data for the years before 2020 using the same methodology are not available. Data by demographic and socioeconomic status were not available.

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### International comparability

This is an international indicator reported by the OECD. International comparisons were limited to countries that use organised screening programme data, rather patient survey-base data (generally overestimated). The definition applied by the OECD is: number of target population who had the initial screening test specified in the country's colorectal cancer screening programme during the period specified in the screening programme / the number of target population who were eligible for the initial screening test specified in the country's screening programme during the period specified in the screening programme. Programme data are collected to monitor national screening programmes, but differences in target age, screening frequency and screening methods may lead to variations in the data reported across countries. Thus, results should be interpreted with caution.

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No colorectal screening programme data are available in Austria, Greece, Poland, Portugal, Slovak Republic, Spain, Sweden, Bulgaria and Romania, either because the programme data are currently not retrievable or because there is no organised screening programme in place.

<b>Dimension</b>	Accessibility of preventive care
<b>Related indicators</b>	Colorectal cancer five year survival rate
<b>Reviewer</b>	Koen Van Herck (BCR)

### 1.1.2 Results

#### Belgium

The total colorectal cancer screening coverage, defined as the proportion of persons (aged 50-74 years) having been screened for colorectal cancer within the last two years increased slightly from 51.7% in 2020 to 53.6% in 2021 (see Table 1). The coverage from the screening in the program (32.6%) was higher than coverage from the screening outside of the program (21.1%) in 2021.

#### Regional comparison

The total screening coverage rate was higher in Flanders (66.1%) than in Brussels and Wallonia (33.2%) in 2021 (see Table 1). The coverage from the screening in the program (43.0%) was higher than coverage from the screening outside of the program (23.1%) in Flanders only. In Brussels and Wallonia, the coverage from the screening outside of the program (19.4% and 17.5%, respectively) was higher than coverage from the screening in the program (13.9% and 15.6% respectively).

**Table 1 – Proportion of the target population eligible for colorectal cancer screening (50-74 years old) who had a screening in 2020 and 2021**

	Total coverage		Coverage from the program		Coverage from outside the program	
	2020	2021	2020	2021	2020	2021
<b>Belgium</b>	51.7	53.7	30.9	32.6	20.8	21.1
<b>Brussels</b>	28.7	33.2	10.4	13.9	18.3	19.4
<b>Flanders</b>	65.0	66.1	42.1	43.0	22.9	23.1
<b>Walloon region</b>	31.0	33.2	13.7	15.6	17.3	17.5



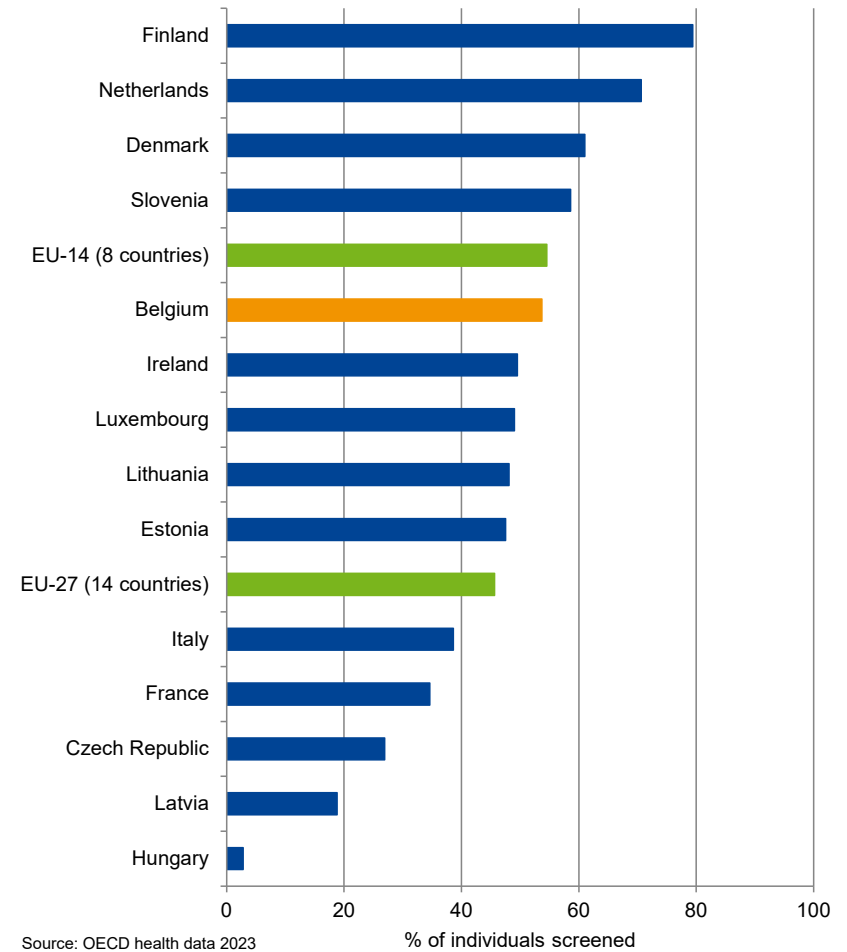
### Impact of the COVID-19 pandemic

Without data before 2020, it was not possible to evaluate the impact of the COVID-19 pandemic on colorectal cancer screening coverage.

### International comparison

The Belgian colorectal cancer screening rate was lower than the EU-14 average (54.6%), but higher than the EU-27 average (45.7%) in 2021 (see Figure 1). The total coverage screening rate in Belgium met the acceptable rate of 45% of invited individuals attended screening, and Flanders's coverage (66.1% in 2021) was just above the desirable rate of 65%.

**Figure 1 – Colorectal cancer screening (people aged 50-74 years): international comparison (2021)**





### Key points

- **The total colorectal cancer screening rate was 53.6% in 2021, with 32.6% from screening in the program and 21.1% from screening outside of the program.**
- **The total screening coverage rate was two-fold higher in Flanders (66.1%) than in Brussels and Wallonia (33.2%) in 2021.**
- **The Belgian coverage rate was lower than the EU-14 average (54.6%), but higher than the EU-27 average (45.7%) in 2021.**
- **While the colorectal coverage screening rate in Belgium met the acceptable rate of 45% recommended by European guidelines, the coverage rate in Flanders met the desirable rate of 65%.**

### References

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