



10.4. Breast cancer screening (P-6, P-7)

10.4.1. Documentation sheet

Description	<p>Proportion of women aged 50-69 having received at least one mammogram within the last two years</p> <ol style="list-style-type: none"> 1. Within the context of the organised screening programme (mammogram with a specific billing code for screening) 2. Within or outside the context of the organised screening programme (all mammograms)
Calculation	<p>Numerator: number of women aged 50-69 in a given year, having received a (screening) mammogram within the year or the preceding year. Denominator: Total number of women aged 50-69 affiliated to a Sickness fund in a given year</p>
Rationale	<p>In Belgium, breast cancer is by far the first female cancer in incidence (10 735 cases in 2016),^{eee} and is also the leading cause of death by cancer in females (17.0% of all female cancer deaths in 2015).¹ Mammographic screening is so far considered an efficient mean to improve the prognosis. Therefore, since 2001 in Flanders and 2002 in Brussels and Wallonia, a national breast cancer screening programme exists for women aged 50-69 years^{fff}. Each woman aged 50 years or more receives every 2 years an invitation to participate in the screening programme. The mammograms realised in the programme follow a specific procedure, and have their own INAMI – RIZIV billing codes. The examination is free of charge for the women. Mammograms having the specific reimbursement code are referred to as “organised screening mammograms” in this report in order to distinguish them from the opportunistic screening using mammogram (i.e. outside the programme).</p> <p>The first indicator measures the proportion of women aged 50-69 undergoing a mammogram in the framework of the organized screening, whereas the second measures the proportion of women aged 50-69 undergoing a mammogram within or outside the organised programme (all mammograms).</p> <p>The first indicator measures the success of the organised programme, the second the whole coverage of mammographic screening in Belgium. There is a generally accepted target of 75% for the breast cancer screening coverage.²</p>
Data source	IMA - AIM Atlas, IMA – AIM data
Technical definitions	<p>INAMI – RIZIV billing codes: 450192-450203 (mammogram within the screening programme: organised screening mammograms), 450096, 461090 (other mammography).</p> <p>In the IMA database only the year of birth is available and not the exact date of birth. The age is the difference between the calendar year and the year of birth (snapshot on the 30th of June or the 31st of December). If the woman’s age falls between 50 and 69 years, she enters the denominator.</p>
Limitations	<p>It is impossible to distinguish opportunistic screening mammograms (i.e. mammogram made for screening purposes but outside the organised programme) from diagnostic mammograms (i.e. mammogram made for diagnostic reasons, e.g. in women with symptoms or at high risk). Since the fraction of diagnostic mammograms among all mammograms is quite low, the rate of mammograms outside the screening is an acceptable proxy of the opportunistic screening.³</p>

^{eee} http://www.kankerregister.org/Statistiques_tableaux%20annuelle

^{fff} <http://www.zorg-en-gezondheid.be/Ziektes/Vlaams-bevolkingsonderzoek-naar-borstkanker/> and <http://www.sante.cfwb.be/index.php?id=cancerdusein0>



	Women with a bilaleral mastectomy and women with a breast cancer have not been excluded from the target population. For all those reasons, the total coverage is likely to be slightly overestimated.
International comparability	The OECD publishes the proportion of women aged 50-69 having had a bilateral mammography within the past two years (for the majority of countries), preferably from programme (administrative billing) data, otherwise from survey data; the OECD thus warns for a limited comparability. For Belgium, OECD results are available from IMA – AIM data under the label “programme data”. ⁴
Dimension	Accessibility of preventive care
Related indicators	Breast Cancer 5-year survival rate Breast cancer screening mammography in women aged 40-49

10.4.2. Results

10.4.2.1. Belgium

At the start of the breast cancer screening programme in 2001 the (total) coverage only reached 43%.⁵ From 2003 to 2007, the organised screening programme coverage has risen from 21.5% to 30.3%; the increase has since been slow: the programme has a coverage of 33.2% in 2016 (Table 5) while the total coverage by all mammograms remains stable around 62% since 2007, suggesting a small switch from opportunistic mammograms to organised screening mammograms. This overall coverage is still lower than the 75% European target screening rate.⁶

The total breast cancer screening coverage (organised screening mammograms and other mammograms) is higher for younger women within the target age group (50-69 years).

In both organised and global screening, vulnerable women (those entitled to increased reimbursement) have a lower coverage than the remaining population (respectively 24.9% versus 34.3% and 48.1% versus 65.1% in 2016). This is in line with evidence from other countries: several countries have income inequalities in breast cancer screening (e.g. Czech Republic, Denmark, France, New Zealand and Poland).⁷ The breast cancer screening coverage by level of income is considered by the OECD as an indicator of access of care; see also the *equity and inequalities* section in the main report.

As observed in previous performance reports,⁸⁻¹⁰ the organised screening coverage is still increasing in Flanders, reaching 50.7% in 2016, while plateauing around 10% in Brussels since 2007 and even slightly decreasing in Wallonia, where the coverage is only 6.8% in 2016.

In Flanders, the total mammograms coverage has plateaued in 2012, then decreased slightly until 2015; 2016 sees a small increase. The high coverage by mammograms outside the organised screening coverage in Wallonia is historically due to the early implantation of the opportunistic breast cancer screening.

In its report covering the period 2009-2014, the Brussels Health and Social Observatory also found disparities in terms of coverage between the Brussels municipalities: a higher participation to the organised programme in the North of Brussels, but a higher opportunistic screening and overall coverage in the South.¹¹



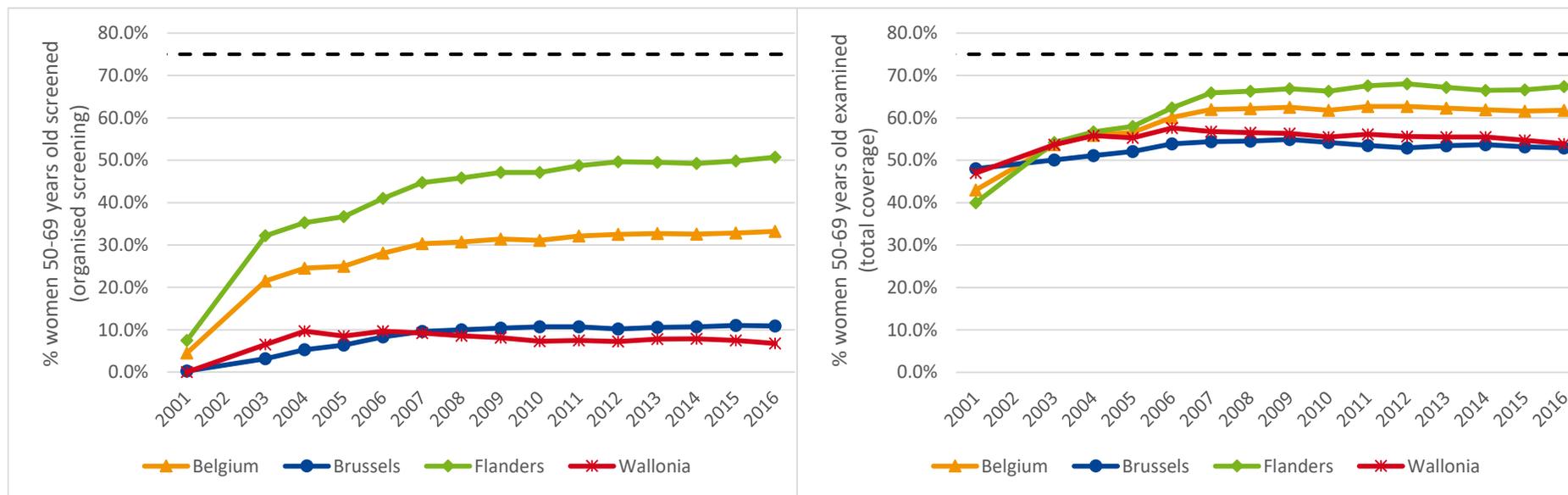
Table 102 – Coverage of breast cancer screening in women 50-69 years old (organised screening mammograms and other mammograms coverage) (2016)

Variable	Category	Organised screening mammograms	Total coverage
Age (years)	50-54	35.3%	66.7%
	55-59	31.0%	59.4%
	60-64	34.1%	61.6%
	65-69	32.1%	58.9%
	Total (50-69)	33.2%	61.8%
Entitlement to increased reimbursement	No	34.3%	65.1%
	Yes	24.9%	48.1%
Region of residence	Brussels	10.9%	52.9%
	Flanders	50.7%	67.4%
	Wallonia	6.8%	53.9%
Province of residence	Antwerpen	48.9%	66.6%
	Brabant Wallon	9.7%	60.4%
	Bruxelles-Capitale	10.9%	52.9%
	Hainaut	7.2%	54.5%
	Limburg	61.3%	72.0%
	Liège	4.7%	51.4%
	Luxembourg	9.3%	50.2%
	Namur	6.8%	54.1%
	Oost-Vlaanderen	50.9%	67.5%
	Vlaams Brabant	43.4%	66.8%
	West-Vlaanderen	52.3%	65.4%

Source: IMA Atlas 2018



Figure 150 – Coverage of breast cancer screening (organised and all mammograms) in women 50-69 years old, by region (2001-2016)

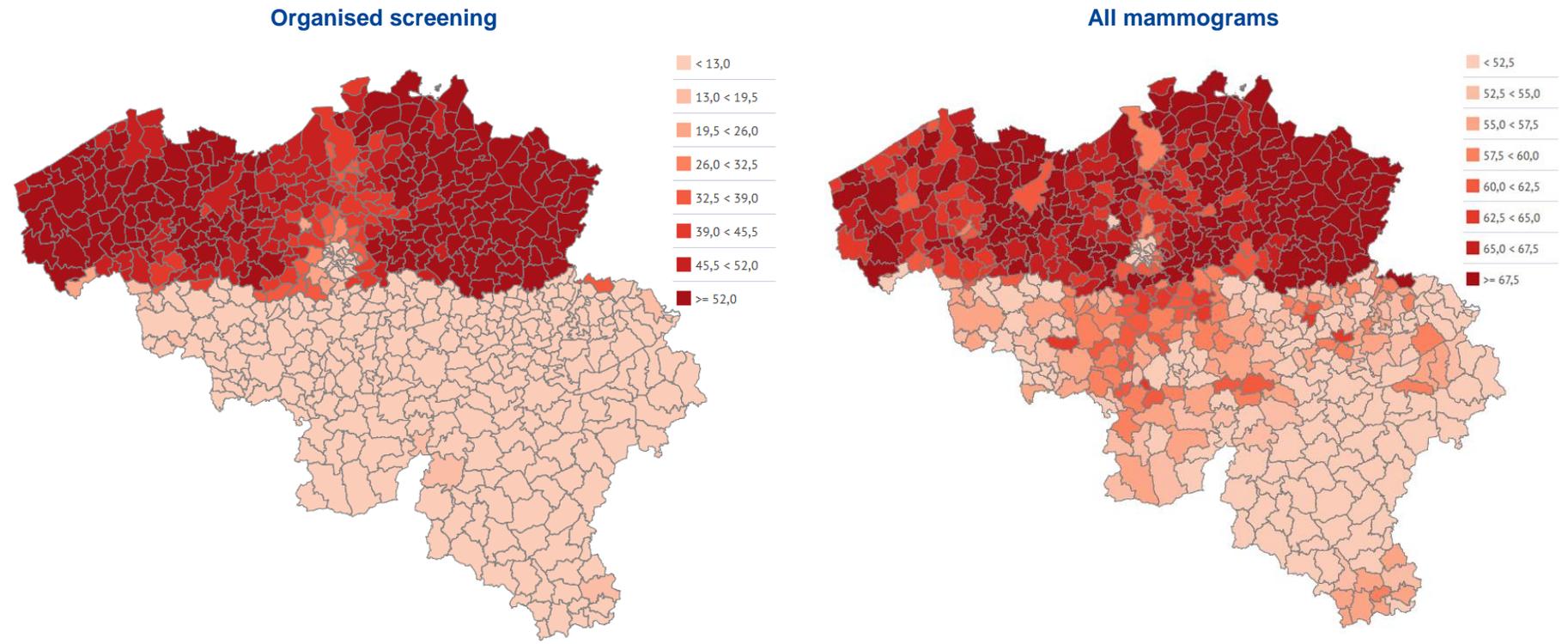


Source: IMA – AIM (2001), IMA – AIM Atlas (2003-2016)

Note: mammogram = organised + opportunistic screening + diagnostic test; Dashed line= European target screening rate.



Figure 151 – Coverage of breast cancer screening (organised and all mammograms) in women 50-69 years old, by municipality (2016)



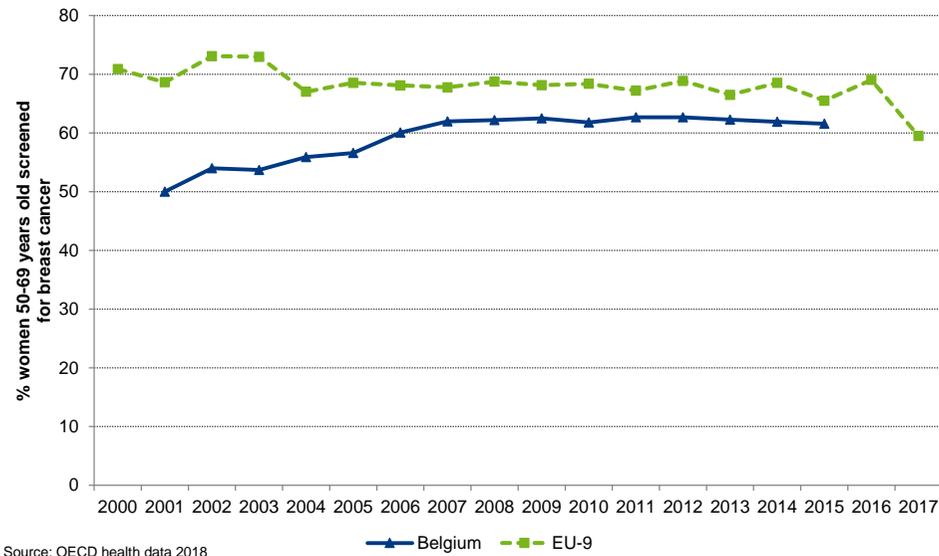
Source: IMA – AIM Atlas 2018



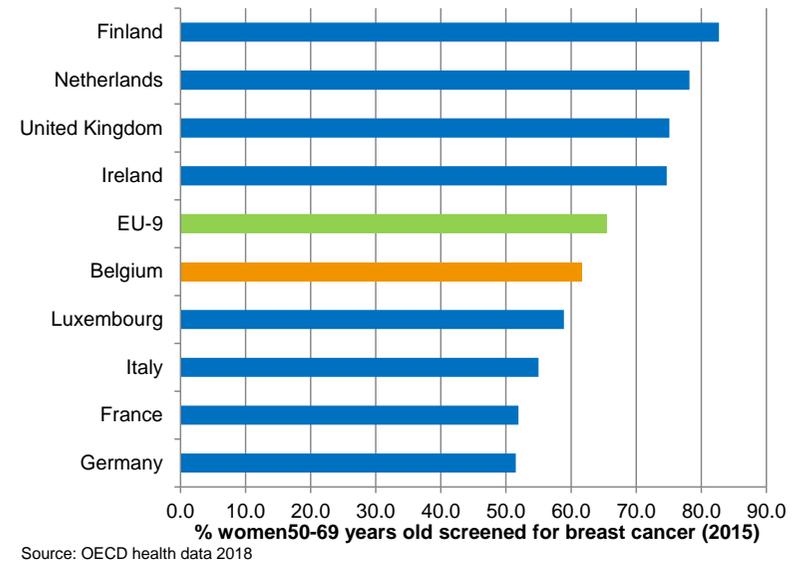
10.4.2.2. International comparison

Only the total mammogram coverage can be compared with other countries; comparisons should be taken with caution, as they mix survey and programme data. The Belgian coverage is consistently below the EU-15 average. Three countries reach the 75% target coverage: Finland, Netherlands and UK, with Ireland very close.

Figure 152 – Coverage of breast cancer screening: international comparison (2000-2017)



Source: OECD Health statistics 2018





Key points

- **The total coverage of breast cancer screening was 61.7% in 2016. This coverage has improved at the early 2000s (it was 43% before the start of the programme and reached 54% in 2003) but has been stagnating since 2010 (62%). In 2016, Flanders reached the highest rate at 67% while the lowest rate of 53% was achieved in Brussels (54% in Wallonia).**
- **The breast cancer screening coverage in Belgium fails to achieve the commonly accepted target of 75%, which is reached by Finland, The Netherlands and UK in 2015. It is also lower than the EU average.**
- **The coverage of the organised breast cancer screening stagnates at a national level around 33%, with very large differences in participation between Regions: Flanders: 51%, Brussels 11%, Wallonia 7%.**
- **There are indications of socio-economic inequalities in the access to breast cancer screening: women with a lower socio economic status have a lower participation rate in the screening procedures than other women.**

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