



9 PREVENTIVE CARE

Preventive care includes two types of interventions: the first type of interventions, also called primary prevention, aims to reduce or suppress the occurrence of a disease (this is e.g. the purpose of vaccination); within the scope of this HSPA-report, only primary prevention organised by the health system will be described. The second type of preventive care, also called secondary prevention, aims to detect the occurrence of a disease at early stage, in order to initiate treatment as early as possible to limit the consequences in term of mortality and morbidity/disability (this is the purpose of cancer screening, or the check-up visit at the dentist).

For this report, we selected as primary prevention intervention, some vaccination against childhood vaccine preventable diseases and in older people. We selected as secondary prevention interventions the screening of some cancers and preventive dental care. All but one indicators in Table 22 are process indicators evaluating the coverage of preventive care. One indicator, the incidence of measles, represents an outcome indicator of the prevention.

It is noteworthy that the organisation of preventive interventions is mainly in the hand of the federated entities, with some involvement of the federal authorities for some of the reimbursements. Depending on the topics, the regional programmes can be quite similar in the different regions (like vaccinations in children, breast cancer screening) or present more or less important differences. For this reason, the evaluation of the performance should also be made at regional level, even if a national level has been computed.

Child and adolescent vaccination

Belgium performs rather well for infant vaccination: the coverage of the full schedule vaccination for DTP and polio (4 doses) reached around 94% in 2020, which is nevertheless slightly lower than the health target for polio and pertussis (95%). Many small outbreaks were still observed for pertussis. The coverage of the pneumococcus vaccination was satisfying.

WHO has defined quantified targets for the elimination of measles, namely reaching a 95% coverage rate for both doses of vaccination, and reducing the measles incidence to less than 1 case per million inhabitants. Concerning the **measles vaccination coverage** for the first dose, the 95% coverage target has been reached since 2012 on average for Belgium. The target was reached in Flanders in 2012, in 2015 in Wallonia, and was close in 2019 in Brussels (94.8%). However, for the second dose (given in early adolescence), the coverage only reached 83% on average for Belgium in 2020, which is far too low. Regional differences seemed important, as in Flanders it almost reached 90%, but in Wallonia and Brussels the coverage was around 51-75%. However, those figures have to be interpreted with caution, as the methodology differs between the regions, and the coverage in Brussels and Wallonia may be underestimated, especially during the last survey (51%). A new coverage survey is currently under analysis.

Concerning the **measles incidence**, after the two outbreaks of 2011 and 2017, and the outbreak of 2019, the estimated incidence of measles decreased in 2020 and 2021. This decrease is likely linked to the restrictive measures put in place to stop the transmission of COVID-19 and potentially due to underreporting during the crisis (see also section 8.4). In 2020, WHO declared measles eliminated from Belgium. However, continuous and targeted efforts are still needed, not only to reach 95% coverage for both doses of measles vaccination but also to detect and vaccinate clusters of unvaccinated adults.

For HPV vaccination, the national coverage for girls under 15 years (69.3%) was still far from the WHO target of 90%. Vaccination was started in September 2019 among boys. The vaccination coverage was higher in Flanders.

The COVID-19 pandemic had very little to no impact on young children's vaccination. However, there might have been a small impact on adolescent vaccination, particularly in the French-speaking community.



Vaccination against influenza

Vaccination of older people (≥65 years old and not residing in an institution) against influenza declined between 2010 and 2019, increased during the COVID-19 pandemic and decreased again to 57.3% coverage in 2021 (see also section 8.4). Differences in vaccination coverage by socioeconomic status were minor (see section 7.1), while the vaccination rate was slightly higher in women than men and higher in Flanders than in Brussels and Wallonia. However, the overall coverage remained far below the 75% WHO target. In 2021, Belgium's influenza vaccination coverage was between the EU-27 average and the EU-14 average.

Screening of breast, cervical and colorectal cancers

For the breast cancer screening, the overall coverage (including both the participation in organised screening programme and opportunistic screening) reached 59.0% in 2021, while a participation rate of 75% is recommended. This low coverage rate was stable over time (for the COVID-19 period, see section 8.4). The overall coverage in Flanders was 18 percentage-point (absolute difference) higher than the coverage rates in other regions, or a relative difference of 38%. Even wider regional differences were observed for coverage resulting from the organised breast cancer screening programme. Women in Flanders were mostly screened through the organised programme (49.2%), while this was rarely the case in Wallonia and Brussels (4.0% and 9.0% respectively), where women underwent breast cancer screening outside the organised programme. This raises questions about the overall efficiency of the programme. Moreover, there were important socioeconomic differences (see section 7.1).

In 2021, the coverage of cervical cancer screening was 53.7% of women aged 20-69 years without medical exclusions and 57.4% with medical exclusions. The coverage without medical exclusions was similar across the three regions (52%) and was below the desirable target of 85%. In Flanders, the only region with an organised cervical cancer screening program^u

^u Currently in a pilot phase in Wallonia.

(women aged 25-64 years), the coverage rate with medical exclusions reached 62.7% when using the target population of the program. The cervical cancer screening rate in Belgium was lower than the EU-14 average (59.6%) but higher than the EU-27 average (53.2%) in 2021.

Programmes of colorectal cancer screening through Faecal occult blood test (FOBT) run in Wallonia and Brussels since 2009 and in Flanders since 2013. Different indicators of coverage can be calculated, as the strategy is either to perform a FOBT if there is no risk factor, or to perform a colonoscopy if risk factors exist. The total colorectal cancer screening rate only 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 only reached the desirable target of 65% in Flanders, where the coverage was two-fold higher than in Brussels and Wallonia. The Belgian coverage rate was lower than the EU-14 average but higher than the EU-27 average.

Preventive measures in oral health, measured by regular contacts with a dentist

The indicator having regular contacts with a dentist^v is the only one in this section which does not fall within the competences of the federated entities. The results are poor since only 53.8% of the population had regular contacts with a dentist in 2021, with lower rates in Wallonia (48.7%) and Brussels (47.4%) than in Flanders (57.6%). Rates remained relatively stable over time across all regions. Contact rates were lower in more disadvantaged groups (see section 7.1). For the COVID-19 period, see section 8.4.

The higher contact rate in children aged 5-17 years (67-71%) can probably be partly attributed to orthodontic treatment in that age group. The low attendance rates, despite the fact that most of preventive and restorative care is fully reimbursed for children up to 18 years, raise questions on the factors precluding access to (preventive) oral care.

^v Having regular contacts with a dentist is defined as having had at least two contacts in at least two different years during the last three years.



Preventable mortality

A death is said preventable if, in the light of understanding the determinants of health at the time of death, it could have been avoided through effective public health and primary prevention interventions.

Belgium ranked poorly among EU-14 countries for men and women. Preventable mortality was particularly high in 2020 due to the integration of COVID-19 as a cause of preventable mortality (see also section 8.4). Preventable mortality was more than twofold higher in men than in women. Regional differences increased in 2020. In men, premature mortality was 56% higher in Wallonia and 46% higher in Brussels than in Flanders, in women it is 51% higher in Wallonia and 33% higher in Brussels.

Conclusion

The performance of preventive care in Belgium was rather poor. Only the vaccination coverage in infant children reached an acceptable level, even if it should still improve to reach the defined targets. Measles and HPV vaccination in adolescents did not reach the target, particularly in Wallonia and Brussels. Despite an increase during the COVID-19 pandemic, the vaccination against influenza in older people remained too low in all three regions. Breast cancer screening was too low, even when looking at the global coverage (organised + opportunistic screening), and especially in Brussels and Wallonia. The coverage rate of cervical cancer screening was much lower than the desirable target rate in all regions and the coverage rate of colorectal cancer screening was below the target in Wallonia and Brussels. The proportion of the population that had regular contacts with a dentist remained too low. Finally, preventable mortality remained high and above EU averages.

Table 22 – Indicators on preventive care

(ID) Indicator	Score	Belgium	Year	Target	Flanders	Wallonia	Brussels	Source	EU-14	EU-27
Vaccination coverage										
P-1 Polio (% , 4 th dose)	+	94.0	2020	95	94.2	94.3	92.8	Sciensano Federated entities	-	-
P-12 Diphtheria, tetanus and pertussis vaccination in children (% , 4 th dose)	+	93.9	2020	90-95	94.2	94.0	92.6	Sciensano – Federated entities	-	-
P-2a Measles vaccination in children (% , 1 st dose)	+	96.0	2020	95	96.1	96.5	94.8	Sciensano – Federated entities	-	-
P-2b Measles vaccination in adolescents (% , 2 nd dose)	●	83.0 ^a	2020	95	89.2	51.1^b		Sciensano – Federated entities	-	-
P-3 Pneumococcus vaccination in children (% , 3 th dose)	●	93.8	2020	-	95.4	92.0	91.7	Sciensano – Federated entities	-	-
P-4 Influenza vaccination (% pop aged ≥65 years) ^c	ST	57.3	2021	75	64.7	49.1	46.3	IMA – AIM; OECD	62.8	43.2



P-14 <i>New</i>	HPV vaccination in girls (% , 2 nd or 3 rd doses following vaccines)	+	69.3	2020	90	84.3	50.2		Sciensano – Federated entities	-	-
Incidence infectious diseases preventable by vaccination											
P-5	Incidence of measles (new cases per million population) ^d	●	0.4 ^e	2021	< 1	0.5	0.5	0	Sciensano – Federated entities	0.1	-
Cancer screening^f											
P-6	Breast cancer screening (% women aged 50-69 years)	ST	59.0	2021	75	65.8	49.2	48.0	IMA – AIM; OECD	61.4	54.5
P-7	Breast cancer screening - organized programme (% women aged 50-69 years)	ST	31.5	2021	75	49.2	4.0	9.0	IMA – AIM	-	-
P-8	Cervical cancer screening (% women aged 20-69 years)	●	53.7	2021	85	52.0	51.8	52.0	BCR ^g ; OECD	59.6	53.2
P-9	Colorectal cancer screening (% pop aged 50-74 years)	●	53.6	2021	65	66.1	33.2	33.2	BCR ^g ; OECD	54.6	45.7
Oral health – contacts with dentist											
P-11	Regular contacts with dentist ^h (% population aged ≥3 years)	ST	53.8	2021	-	57.6	48.7	47.4	IMA – AIM	-	-
Preventable mortality											
P-13a	Preventable mortality, men (per 100 000 population, age-adjusted)	●	243.1	2020	-	200.9	313.3	292.7	Statbel, cause of deaths database		
			243.8	2020						Eurostat	210.6
P-13b	Preventable mortality, women (per 100 000 population, age-adjusted)	●	113.8	2020	-	96.0	144.6	127.3	Statbel, cause of deaths database		
			113.6	2020						Eurostat	87.6

Good (●), average (●) or poor (●) results, globally stable (ST), improving (+) or trend not evaluated (empty).

For contextual indicators (no evaluation): upwards trend (↗), stable trend (→), downwards trend (↘), no trend (C). ^a The Belgian average was computed based on the data for 2020 for Flanders and 2015-2016 for Wallonia and Brussels (75%). ^b This study was done with another sample and methodology than the previous years and is not representative. A new study is under analysis and should provide new insights. ^c Excluding population residing in homes for the older people and nursing homes (no reliable data); ^d The regional differences observed during a specific year are not highlighted, since epidemic diseases in children show fluctuations that are poorly rendered by a one-year snapshot; ^e Measles cases have been strongly influenced by the pandemic and the control measures; there is still a risk of measles outbreaks in Belgium. ^f Within the last two years for breast and colorectal cancer screening, within the last three years for cervical cancer screening; ^g Multiple data sources were used, including: Statbel, CvKO, CHP, CIB and IMA – AIM. ^h Regular contacts is defined as patients who have at least two contacts in two different years during the last three years. Bold results indicate regions with a relative risk higher than 1.2 (or lower than 0.83) when compared to the region with the best results.