



10. REGULAR CONTACTS WITH A DENTIST (P-11)

10.1. Documentation sheet

Description	Proportion of the population with a “regular contact with a dentist” (defined as at least 2 contacts in 2 different years during the last three years)
Calculation	Numerator: number of individuals 3 years old and older who had a contact with a dentist at least twice in 2 different years during the last three years. Denominator: number of individuals aged 3 years and older.
Rationale	Oral health is a condition in which people can eat, speak and socialize without (oral) disease, discomfort or embarrassment. ¹ While having good levels of oral health is important in itself, it has also been linked to general health. ² Fortunately, some oral disorders (like dental caries and dental erosion) can be prevented. Regular dental visits not only enable the diagnosis and treatment of any dental problem in an early stage, they also help to prevent such problems through dietary and oral hygiene advice and the delivery of professional prophylaxis (i.e. the removal of dental plaque and calculus, the application of fluoride and sealants). Several studies demonstrated (inter- and intra-country) socioeconomic inequalities in access to oral healthcare, oral health and oral health related behaviour (e.g. toothbrushing). ²⁻⁷
Data source	Main indicator: IMA – AIM data Secondary analyses: HIS 2018 (Interactive analysis – Module Health and Social Services) ⁸ and HISLink 2013/2018 data (see section ‘related indicators’ below) In the HISLink project, Sciensano performed a linkage between Health Interview Survey (HIS) 2013 and 2018 and IMA – AIM data (2013/2018), partly to verify the HIS reporting on the use of care but also to overcome the shortcomings of the health insurance data (e.g. information on non-reimbursed health care use is lacking, no link between health care use and health needs, information on socio-demographic background characteristics is scarce). Data extracted from the HIS are covering the following topics: socio-demographic characteristics, health status, lifestyle and health care use.
Indicator source	IMA-AIM Atlas, HIS
Technical definitions	Contact definition: all RIZIV – INAMI billing codes belonging to N group 04 (dental care provided by general dental practitioners, periodontists, orthodontists, or medical specialists in stomatology). Hereafter, the term ‘dentist’ is used to cover all these dental care specialists. In the previous HSPA reports, codes belonging to N group 16 (care provided by maxilla-facial surgeons) were also considered. Chronic definitions: 1) IMA – AIM: Individuals entitled to the status chronic illness. Entitlement is observed through data from the InterMutualistic Agency (IMA – AIM), variables pp3015, pp3016 or pp3017. If the value for one of these 3 variables is equal to 1 or 2, the individual has an entitlement and is assumed to suffer from a chronic condition.



	2) HIS: The number of persons reporting to suffer from a chronic disease by answering “yes” to the following question in the HIS; the denominator is the number of respondents of the following question in the HIS (MA_SH02): “Do you suffer from a chronic disease or condition?”
International comparability	This is not an international indicator. The definition of “regular contact with a dentist” varies from one country to another; the most frequently used indicator is yearly contact.
Limitation	HIS excluded population under 15 years.
Dimension	Access to dental care
Secondary indicators	<p>Proportion of people (aged 15 and over) that consulted a dental care specialist (dentist, orthodontist or other dental care specialist) in the last 12 months (HIS).</p> <p>Proportion of people (aged 15 and over) that never consulted a dental care specialist (dentist, orthodontist or other dental care specialist) in the last 12 months, by chronic status (HIS).</p> <p>For these secondary indicators, based on the HIS, the term ‘dental care specialist’ is used rather than ‘dentist’ to easily make the distinction between the main indicator based on IMA – AIM data and these secondary indicators.</p>

10.2. Results

10.2.1. Belgium

The proportion of the population who had at least two dental visits in two different years in the last three years (regular contact with a dentist)

The proportion of the population who had at least two dental visits in two different years in the last three years increased from 49.5% in 2014 to 55.3% in 2019 (Table 16). The increase in the last years may (in part) be attributed to the information campaigns of the health insurance funds and the dental

professional associations on the upcoming dental care programme (‘Mondzorgtraject’ – ‘Trajet de soins bucco-dentaires’)^k which was established on 1 July 2016.⁹ During the 2014-2019 period, a higher increase in the regular attendance rate can be observed for patients with the chronic illness status (+9.7 percentage points) than without the status (+5.5 percentage points). The difference between people with and without the chronic illness status was therefore more pronounced in 2014 (43.4% vs. 50.1%, RR: 0.87) than in 2019 (53.1% vs. 55.6%, RR: 0.96).

The proportion of the population with a regular dental contact in 2019 is the highest in children and adolescents (68.6% and 71.8% for the age groups 5-14 years and 15-17 years, respectively), which is not surprising since there

^k The concept of the dental care program (‘Mondzorgtraject’ – ‘Trajet de soins bucco-dentaires’) ensures that citizens of 18 years and older who have a dental appointment (during which a reimbursed procedure is performed) every calendar year receive a higher reimbursement (i.e. have a smaller personal share) for curative care (e.g. dental restorations, extractions, prostheses) than those who do not attend a dentist regularly. The following

procedures are not included in the dental care programme: consultations, preventive care, orthodontics, periodontics and dental radiographs. The dental care programme should not be confused with the ‘continuity rule’, which stipulates (for a long time already) that the reimbursement for a professional dental debridement is halved for citizens who had no reimbursed dental care during the previous year.



is full reimbursement for the majority of preventive and restorative procedures for all children under 18 years since 2009. In addition, this is the age span in which many children receive orthodontic diagnosis and/or treatment. It is remarkable that in most age groups, the subgroup with chronic illness status was more likely to have a regular contact with a dentist than compared to the subgroup without. The difference becomes smaller at age 65 and is reversed from age 75 onwards. The overall lower dental attendance rate for people with the chronic illness status than for people without the chronic illness status is therefore mostly due to the elderly. Indeed, there is a higher fraction of elderly among persons with chronic illness status.

If we look at the distribution between regions, the regular dental attendance rate was, in 2019, for the whole population higher in Flanders (60%) than in Wallonia (51%) and Brussels (50%) (see Table 16). When a distinction is done based on the chronic illness status, differences between regions are reduced and the regular attendance rate was the highest in Brussels

(56.5%) and the lowest in Wallonia (49.7%) for people with the chronic illness status (in 2019 but also in the previous years) (see Table 16; Figure 26). It should also be noted that in Brussels, the proportion of people with regular dental attendance is slightly higher for people with a chronic illness status than for people without such a status, while in Flanders and Wallonia, it is the opposite. As said above, this result is also related to an age effect, with much lower attendance rates among the elderly and a higher fraction of older people in the group with chronic illness status.

When looking at the data by district in 2019, Nivelles (58.6%) and Hal (58.1%) have the highest proportions of chronic patients with regular dental visits, whereas Neufchâteau (42.7%), Virton (41.5%) and Arlon (38.5%) have the lowest proportions of chronic patients with regular dental visits (see Figure 27). In the subgroup without chronic illness status, Maaseik (65.7%), Turnhout (63.9%) and Hasselt (63.7%) have the highest proportion of patients with regular dental visits and Charleroi (44.8%), la Louvière (44.0%) and Arlon (42.4%) have the lowest proportions (see Figure 27).

Table 16 – Proportion of people with regular contact with a ‘dentist’ (N04), by year, chronic status, and patient characteristics (2014-2019)

Variable	Category	Proportion		
		People with the chronic illness status	People without the chronic illness status	Whole population
Year	2014	43.4%	50.1%	49.5%
	2015	46.1%	52.2%	51.6%
	2016	48.9%	54.3%	53.7%
	2017	50.8%	55.4%	54.9%
	2018	51.5%	55.4%	55.0%
	2019	53.1%	55.6%	55.3%
Age (2019) (years)	3-4	21.8%	16.6%	16.6%
	5-14	77.7%	68.3%	68.6%
	15-17	79.2%	71.6%	71.8%
	18-24	64.5%	53.5%	53.8%
	25-44	65.1%	52.5%	53.1%
	45-64	62.6%	58.6%	59.1%
	65-74	55.0%	54.9%	54.9%



	75+	37.3%	40.4%	39.1%
Province (2019)	Antwerpen	54.1%	59.4%	58.8%
	Brabant Wallon	58.6%	56.9%	57.1%
	Brussels	56.5%	49.3%	50.1%
	Hainaut	44.2%	46.0%	45.7%
	Liège	56.0%	55.9%	55.9%
	Limburg	56.3%	63.7%	62.7%
	Luxembourg	43.1%	49.2%	48.5%
	Namur	47.2%	50.8%	50.4%
	Oost-Vlaanderen	52.8%	59.9%	59.0%
	Vlaams Brabant	57.6%	61.0%	60.6%
Region (2019)	West-Vlaanderen	54.0%	61.3%	60.3%
	Brussels	56.5%	49.3%	50.1%
	Flanders	54.7%	60.7%	60.0%
	Wallonia	49.7%	51.2%	51.0%

Source: IMA – AIM

Note: Regular contact is defined as two contacts in two different years in the last three years.

Table 17 – Number of people with regular contact with a ‘dentist’ (N04), by year, chronic status, and patient characteristics (2014-2019)

Variable	Category	Number (Numerator / Denominator)		
		People with the chronic illness status	People without the chronic illness status	Whole population
Year	2014	412 626 / 951 371	4 781 072 / 9 535 204	5 193 698 / 10 486 575
	2015	476 053 / 1 031 958	4 965 492 / 9 504 838	5 441 545 / 10 536 796
	2016	537 192 / 1 097 839	5 153 520 / 9 494 600	5 690 712 / 10 592 439
	2017	579 340 / 1 139 955	5 268 288 / 9 506 853	5 847 628 / 10 646 808
	2018	611 637 / 1 186 955	5 267 394 / 9 511 631	5 879 031 / 10 698 586
	2019	679 897 / 1 280 219	5 270 161 / 9 475 027	5 950 058 / 10 755 246
Age (2019) (years)	3-4	604 / 2 766	39 146 / 236 213	39 750 / 238 979
	5-14	31 127 / 40 070	847 263 / 1 240 983	878 390 / 1 281 053
	15-17	6 397 / 8 074	254 279 / 355 059	260 676 / 363 133
	18-24	11 642 / 18 050	455 445 / 850 622	467 087 / 868 672
	25-44	85 574 / 131 420	1 400 867 / 2 667 640	1 486 441 / 2 799 060
	45-64	23 1648 / 370 047	1 537 768 / 2 625 018	1 769 416 / 2 995 065
	65-74	149 854 / 272 522	492 485 / 897 827	642 339 / 1 170 349
	75+	163 051 / 437 270	242 908 / 601 665	405 959 / 1 038 935



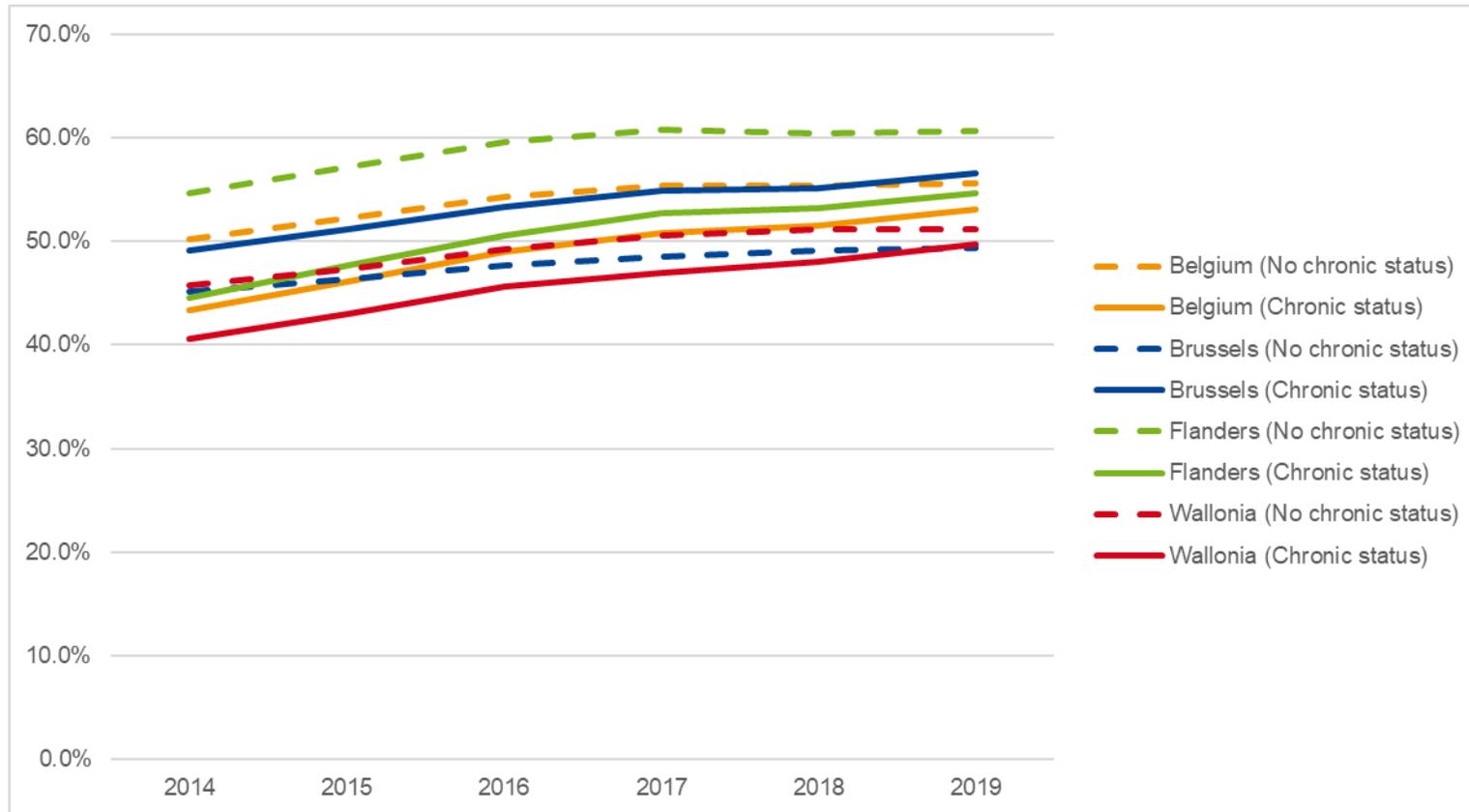
Province (2019)	Antwerpen	102821 / 190 106	918 938 / 1 546 938	1 021 759 / 1 737 044
	Brabant Wallon	23946 / 40 839	191 334 / 336 344	215 280 / 377 183
	Brussels	57577 / 101 902	442 912 / 897 622	500 489 / 999 524
	Hainaut	74905 / 169 345	500 481 / 1 088 378	575 386 / 1 257 723
	Liège	75726 / 135 162	496 277 / 888 066	572 003 / 1 023 228
	Limburg	60881 / 108 060	447 691 / 702 610	508 572 / 810 670
	Luxembourg	11162 / 25 897	89 673 / 182 210	100 835 / 208 107
	Namur	26659 / 56 435	210 361 / 414 030	237 020 / 470 465
	Oost-Vlaanderen	91008 / 172 279	761 703 / 1 271 789	852 711 / 1 444 068
	Vlaams Brabant	68243 / 118 469	582 497 / 954 736	650 740 / 1 073 205
West-Vlaanderen	85125 / 157 568	602 957 / 984 300	688 082 / 1 141 868	
Region (2019)	Brussels region	57 577 / 101 902	442 912 / 897 622	500 489 / 999 524
	Flemish region	408 078 / 746 482	3 313 786 / 5 460 373	3 721 864 / 6 206 855
	Walloon region	212 398 / 427 678	1 488 126 / 2 909 028	1 700 524 / 3 336 706

Source: IMA – AIM

Note: Regular contact is defined as two contacts in two different years in the last three years.



Figure 26 – Regular contact with a dentist, by chronic illness status and region (2014-2019)

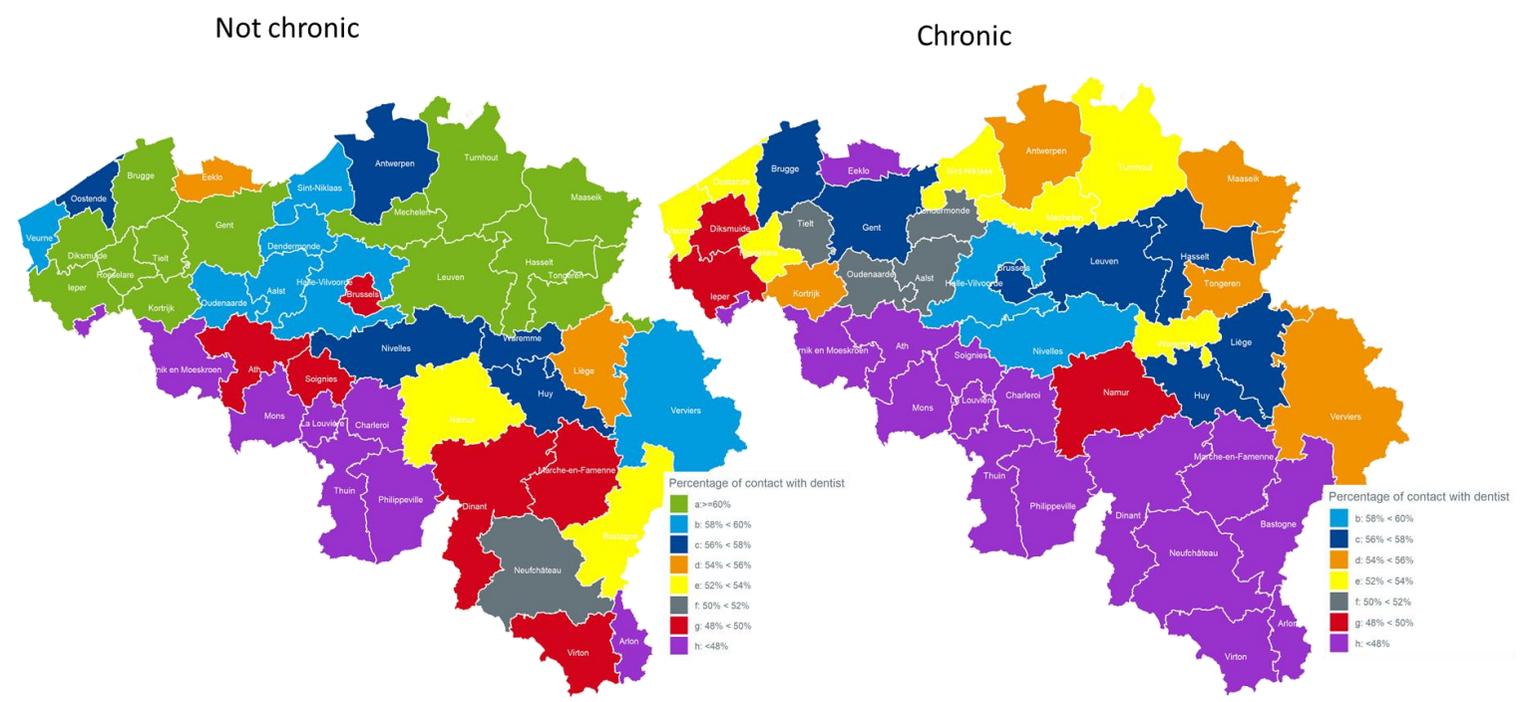


Source: IMA – AIM

Note: Regular contact is defined as two contacts in two different years in the last three years.



Figure 27 – Regular contact with dentist, by district, by chronic status, 2019



Source: IMA – AIM
 Note: Regular contact is defined as two contacts in two different years in the last three years.



The proportion of people (15+) that consulted a dental care specialist in the last 12 months

Results presented in the previous sections, which are based on billing IMA – AIM data, are in line with the results reported in the 2018 Health Interview Survey (interactive analysis), in which 67.7% of the respondents reported that they had consulted a dental care specialist in the preceding year. Likewise, variation across age groups was observed with the highest rate in the 2-14 years old age group (75.4%) and the lowest in the seniors (aged 75 or older, 43.0%). The higher attendance rates in the Health Interview Survey were expected as they are based on self-report.^{8, 10}

The Health Interview Survey (interactive analysis) further revealed important sociodemographic differences, even after correction for age and gender: only 40.1% of the group with the lowest educational level (primary or no degree) reported having seen a dental care specialist in the preceding year and this proportion increases up to 78.1% in the group who had taken the highest education level (superior education).

Based on the HiSLink 2018 data, linking HIS and IMA-AIM data, a lower proportion of patients (aged 15 years and over) entitled to the chronic illness

status reported having consulted a dental care specialist in the last 12 months compared to patients without a chronic illness status (chronic illness status: 58.3% vs no chronic illness status: 67.3%); this difference was also observed in 2013 and in every region. The same observation can also be done concerning patients with/without self-reported chronic disease (see Table 3). Nevertheless, the difference is somewhat more pronounced based on the chronic illness status (chronic illness status: 58.3% vs. not chronic: 67.3%; -9 percentage points) than based on self-reported chronic disease (self-reported chronic disease: 62.7% vs. no self-reported chronic disease: 68.7%; -6 percentage points) (see Table 18 and Figure 28).

HiSLink 2013 and 2018 data usually also showed an increase in the proportion of people who consulted a dental care specialist between 2013 and 2018. Such observation is done in every region and chronic subgroup, except in Brussels concerning patients that both have the chronic illness status and that have self-reported a chronic disease, for whom a decrease in the proportion is observed (-9 percentage points between 2013 and 2018) (see Table 18).

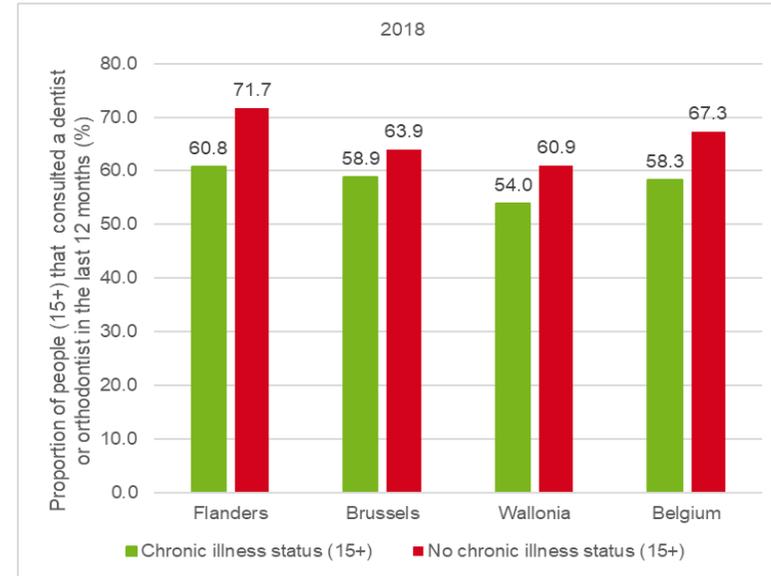
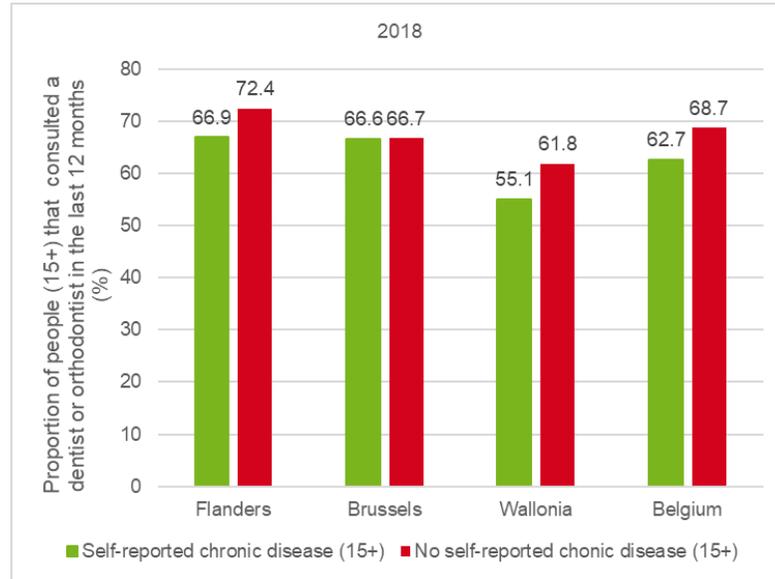
Table 18 – Proportion of people (15+) that consulted a dental care specialist in the last 12 months, by region, chronic status, and year (2013 and 2018)

	Belgium			
	2013		2018	
	%	95% CI	%	95% CI
Self-reported chronic disease (15+)	56.3	(53.0-59.5)	62.7	(60.0-65.3)
No self-reported chronic disease (15+)	62.6	(60.5-64.7)	68.7	(66.8-70.5)
Chronic illness status (15+)	47.6	(43.3-52.0)	58.3	(54.6-62.0)
No chronic illness status (15+)	61.4	(59.7-63.2)	67.3	(65.8-68.9)
Self-reported chronic disease and chronic illness status (15+)	51.2	(45.1-57.4)	60.4	(55.6-65.2)



	Brussels			
	2013		2018	
	%	95% CI	%	95% CI
Self-reported chronic disease (15+)	65.4	(60.3-70.6)	66.6	(62.2-71.1)
No self-reported chronic disease (15+)	60.4	(56.2-64.6)	66.7	(63.5-69.8)
Chronic illness status (15+)	54.2	(45.5-62.9)	58.9	(52.7-65.1)
No chronic illness status (15+)	57.6	(54.6-60.6)	63.9	(61.3-66.5)
Self-reported chronic disease and chronic illness status (15+)	70.1	(58.8-81.5)	61.1	(52.9-69.2)
	Flanders			
	2013		2018	
	%	95%CI	%	95%CI
Self-reported chronic disease (15+)	57.9	(53.1-62.7)	66.9	(63.3-70.6)
No self-reported chronic disease (15+)	65	(62.2-67.9)	72.4	(70.0-74.8)
Chronic illness status (15+)	45.2	(38.9-51.5)	60.8	(55.6-66.1)
No chronic illness status (15+)	65.2	(62.6-67.8)	71.7	(69.6-73.9)
Self-reported chronic disease and chronic illness status (15+)	48.7	(40.2-57.3)	62.7	(56.2-69.3)
	Wallonia			
	2013		2018	
	%	95% CI	%	95% CI
Self-reported chronic disease (15+)	51.3	(46.3-56.3)	55.1	(50.5-59.7)
No self-reported chronic disease (15+)	57.8	(54.2-61.4)	61.8	(58.2-65.5)
Chronic illness status (15+)	50.1	(43.2-57.0)	54	(47.6-60.3)
No chronic illness status (15+)	55.8	(52.9-58.6)	60.9	(57.9-63.8)
Self-reported chronic disease and chronic illness status (15+)	52	(42.6-61.3)	56.2	(47.6-64.8)

Source: HiSLink 2013 and 2018 data

**Figure 28 – Proportion of people (15+) that consulted a dental care specialist in the last 12 months, by chronic status**

Source: HiSLink 2013 and 2018 data

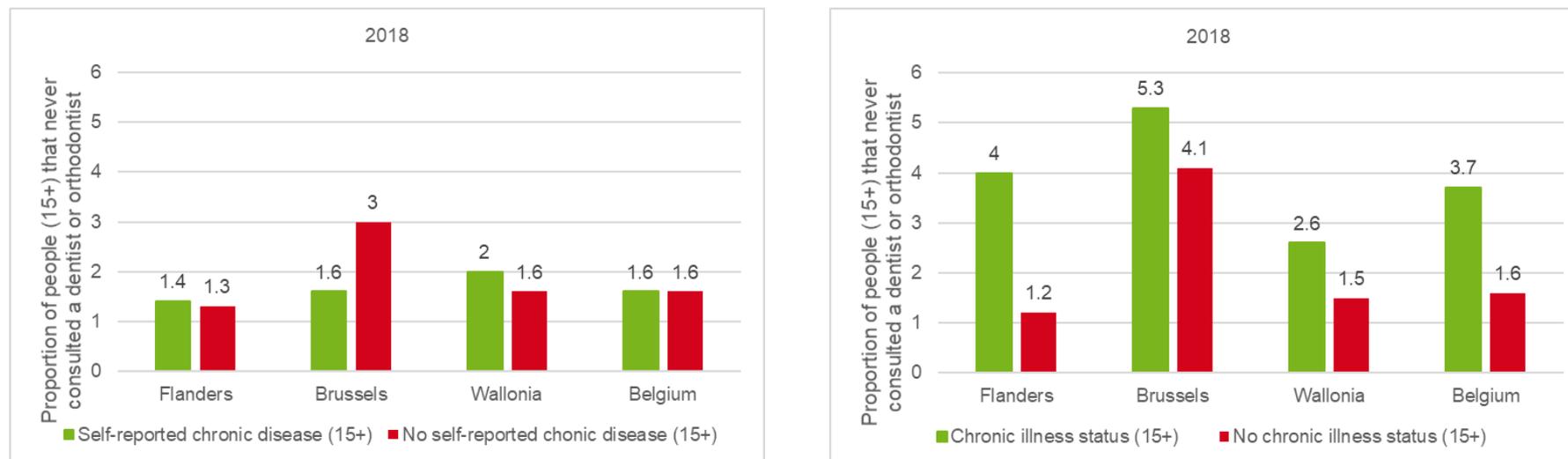
Proportion of people (15+) that never consulted a dental care specialist in the last 12 months, by chronic status

When looking at the proportion of people (aged 15 years old and over) who have never consulted a dental care specialist in the last 12 months, differences of proportions between chronic and non-chronic patients are also higher based on the chronic illness status than based on self-reported chronic disease.

The proportion of people with the chronic illness status that never consulted a dental care specialist (3.7% in 2018) was higher than for patients without the status (1.6% in 2018). Based on the self-reported chronic disease, results are similar between self-reported chronic and non-chronic patients (1.6% in 2018 in both group in Belgium), except in Brussels. (Figure 29Source: HiSLink 2013 and 2018 data).



Figure 29 – Proportion of people (15+) that never consulted a dental care specialist in the last 12 months, by chronic status



Source: HiSLink 2013 and 2018 data

Table 19 – Proportion of people (15+) that never consulted a dental care specialist in the last 12 months, by region, chronic status and year (2013 and 2018)

	Belgium			
		2013	2018	
	%	95% CI	%	95% CI
Self-reported chronic disease (15+)	1.1	(0.6-1.6)	1.6	(0.9-2.3)
No self-reported chronic disease (15+)	1.0	(0.6-1.4)	1.6	(1.1-2.0)
Chronic illness status (15+)	1.0	(0.3-1.6)	3.7	(1.9-5.4)
No chronic illness status (15+)	1.4	(1.0-1.8)	1.6	(1.2-1.9)
Self-reported chronic disease and chronic illness status (15+)	0.7	(0.0-1.5)	2.4	(0.8-4.1)



	Brussels			
		2013		2018
	%	95% CI	%	95% CI
Self-reported chronic disease (15+)	1.1	(0.1-2.1)	1.6	(0.5-2.8)
No self-reported chronic disease (15+)	1.9	(0.8-2.9)	3.0	(2.0-4.1)
Chronic illness status (15+)	1.2	(0.0-2.8)	5.3	(2.6-7.9)
No chronic illness status (15+)	2.4	(1.7-3.2)	4.1	(3.0-5.1)
Self-reported chronic disease and chronic illness status (15+)	1.1	(0.0-3.2)	1.9	(0.0-3.8)
	Flanders			
		2013		2018
	%	95%CI	%	95%CI
Self-reported chronic disease (15+)	0.3	(0.0-0.8)	1.4	(0.4-2.3)
No self-reported chronic disease (15+)	0.4	(0.2-0.7)	1.3	(0.6-1.9)
Chronic illness status (15+)	0.8	(0.0-1.6)	4.0	(1.2-6.9)
No chronic illness status (15+)	0.5	(0.1-0.9)	1.2	(0.7-1.6)
Self-reported chronic disease and chronic illness status (15+)	0.5	(0.0-1.4)	2.9	(0.3-5.4)
	Wallonia			
		2013		2018
	%	95% CI	%	95% CI
Self-reported chronic disease (15+)	2.4	(1.0-3.7)	2.0	(0.8-3.2)
No self-reported chronic disease (15+)	2.0	(1.0-3.1)	1.6	(0.8-2.4)
Chronic illness status (15+)	1.2	(0.1-2.3)	2.6	(0.5-4.7)
No chronic illness status (15+)	2.8	(1.8-3.7)	1.5	(1.0-2.1)
Self-reported chronic disease and chronic illness status (15+)	1.2	(0.0-2.6)	1.8	(0.0-3.9)

Source: HiSLink 2013 and 2018 data

10.2.2. International Comparison

Since “regular dental visit” has been defined in the IMA – AIM atlas (the information source for this indicator) as at least two contacts with a dentist in a time span of three consecutive years and since this is not a standard indicator, it is not possible to compare these results with international reports or publications. International comparison was also not possible for the secondary indicators.



Key points

- The population seeing a dentist on a regular basis is increasing in the 2014-2019 period, especially for people with a chronic illness status (+9.7 percentage points with the status, compared to +5.5 percentage points without the status).
- The highest regular attendance rate is seen in children and adolescents (5-17 year old).
- The regular dental attendance rate was higher for people with the chronic illness status than without such status for all age categories, except for people aged 75 year old and over.
- Overall, the regular dental attendance rate was higher in Flanders (60.0% in 2019) than in Wallonia (51.0% in 2019) and Brussels (50.1% in 2019). Nevertheless, when a distinction is made based on the chronic illness status, differences between regions, and in particular between Flanders and Brussels, were reduced (with 56.5% in Brussels, 54.7% in Flanders and 49.7% in Wallonia for people with the chronic illness status). It should also be noted that in Brussels, the proportion of people with regular dental attendance is slightly higher for people with a chronic illness status than for people without such a status, while in Flanders and Wallonia, it is the opposite. Based on the HiSLink data, the proportion of people (aged 15 years and over) that consulted a dental care specialist in the last 12 months is lower for chronic patients than for non-chronic patients and such difference is more important based on the chronic illness status than based on a self-reported chronic disease, with 58.3% (95% CI 54.6-62.0) people with the chronic illness status compared to 67.3% (95% CI 65.8-68.9) for people without the chronic illness status (-9 percentage points), and 62.7% (95% CI 60.0-65.3) for people with a self-reported chronic disease and 68.7% (95% CI 66.8-70.5) for people without a self-reported chronic disease (-6 percentage points).

- It is difficult to benchmark these data with other countries, since “regular dental visit” has been defined in the IMA atlas (the information source for this indicator) as at least two contacts with a dentist in a time span of three consecutive years, which is not a standard indicator in the international literature.

References

1. Kwan S, Petersen P. Oral health: equity and social determinants. In: Equity, social determinants and public health programmes. Geneva, Switzerland: WHO; 2011.
2. Palencia L, Espelt A, Cornejo-Ovalle M, Borrell C. Socioeconomic inequalities in the use of dental care services in Europe: what is the role of public coverage? *Community Dent Oral Epidemiol.* 2014;42(2):97-105.
3. Armfield JM. Socioeconomic inequalities in child oral health: a comparison of discrete and composite area-based measures. *J Public Health Dent.* 2007;67(2):119-25.
4. Van den Branden S, Van den Broucke S, Leroy R, Declerck D, Hoppenbrouwers K. Oral health and oral health-related behaviour in preschool children: evidence for a social gradient. *Eur J Pediatr.* 2013;172(2):231-7.
5. Tchicaya A, Lorentz N. Socioeconomic inequalities in the non-use of dental care in Europe. *Int J Equity Health.* 2014;13:7.
6. Hakeberg M, Wide Boman U. Dental care attendance and refrainment from dental care among adults. *Acta Odontol Scand.* 2017;75(5):366-71. doi: 10.1080/00016357.2017.1317105. Epub 2017 Apr 19.
7. Shen J, Listl S. Investigating social inequalities in older adults' dentition and the role of dental service use in 14 European countries. *Eur J Health Econ.* 2018;19(1):45-57. doi: 10.1007/s10198-016-0866-2. Epub 2017 Jan 7.
8. Sciensano. Belgian Health Interview Survey – Interactive Analysis. Module: Health and Social Services [Web page]. Brussels: Sciensano;2021 [cited December 2021]. Available from: <https://hisia.wiv-isp.be/SitePages/Home.aspx>
9. RIZIV - INAMI. Het mondzorgtraject: betere terugbetaling bij regelmatig tandartsbezoek [Web page]. 2017 [cited 13 December 2018]. Available from:



- <https://www.riziv.fgov.be/nl/publicaties/jv2016/themas/Paginas/mondzorgtraject.aspx>
10. Van Der Heyden J. Raadplegingen bij de tandarts. Wetenschappelijk Instituut Volksgezondheid; 2015. Gezondheidsenquête 2013. Rapport 3: Gebruik van gezondheids- en welzijnsdiensten. Available from: https://his.wiv-isp.be/nl/Gedeelde%20%20documenten/DC_NL_2013.pdf