

# 1.1 Regular contacts with dentist (% pop aged ≥3 years) (P-11)

# 1.1.1 Documentation sheet

Description	Proportion of the population with a "regular contact with a dentist" (defined as at least two contacts in two different years during the last three years)	
Calculation	<u>Numerator</u> : number of individuals 3 years old and older who had a contact with a dentist at least twice in two different years during the last three years.	
	Denominator: number of individuals aged 3 years and older in a given year and the two years before.	
Rationale	Oral health is a condition in which people can eat, speak and socialise without (oral) disease, discomfort or embarrassment. <sup>1</sup> While having good levels of oral health is important in itself, it has also been linked to general health. <sup>2</sup> 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). <sup>2-7</sup>	
	Evidence from several countries suggests that the number of visits to the dentists decreased during the COVID-19 pandemic, because of the restrictive measures, the cessation of oral health programmes in the community or due to the fear of catching COVID-19 when seeking dental care. <sup>8-12</sup> The declines in dental care services have primarily impacted more socially disadvantaged groups and underserved areas, further widening oral health inequalities. <sup>8, 10</sup>	
Data source	IMA-AIM Atlas data	
Technical definitions	Regular contact with a dentist is defined as at least two contacts with a dentist in two different years over a period of three consecutive years. Region, province and district is to the place of residence of the residents.	
	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) or N group 16 (care provided by maxilla-facial surgeons). Hereafter, the term 'dentist' is used to cover all these dental care specialists.	
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	International comparisons could not be performed for this indicator.	
Dimension	Access to dental care	
Related indicators		
Reviewer	Roos Leroy (KCE)	

# 1.1.2 Results

#### Belgium

The proportion of the population who had at least two dental visits in two different years in the last three years increased from 48.5% in 2010 to 53.8% in 2021 (Table 1). The increase between 2010 and 2019 may (in part) be attributed to the information campaigns of the health insurance funds and the dental professional associations on the upcoming dental care program ('Mondzorgtraject' – 'Trajet de soins bucco-dentaires')<sup>a</sup> which was established on 1 July 2016.<sup>13</sup>

The national results based on billing data are in line with the results reported in the 2018 Health Interview Survey, in which 67.7% of the respondents reported that they had consulted a dentist in the preceding year.<sup>14</sup> The data further illustrated an increase in the proportion of people who consulted a dental care specialist between 2013 and 2018.<sup>15</sup>

#### Impact of the COVID-19 pandemic

Between 2019 and 2021, the proportion of the Belgian population with regular contacts decreased from 55.7% to 53.8%, which is likely to be due to dental service disruptions during the COVID-19 pandemic. Indeed, between the start of the first lockdown (14 March 2020) and end of strict confinement (4 May 2020) in Belgium, clinical activity dropped dramatically, with most practitioners limiting activity to emergency services or remote advice.<sup>12</sup> The decline observed in 2021 could be ascribed to the sequalae of the COVID-19 pandemic.<sup>16</sup>

#### Analysis by demographic characteristics and socio-economic status

As was also observed in the preceding years, the age groups with the highest 'regular dental contact rate' in 2021, are the 5-14 year olds and 15-17 year olds (66.6% and 70.8%, respectively), which is not surprising since there is full reimbursement for the majority of preventive and restorative procedures up to age 18 years since 2009. In addition, this is the age span

a dentist regularly. The following procedures are not included in the dental care program: consultations, preventive care, orthodontics, periodontics and dental radiographs. The dental care program 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.

<sup>&</sup>lt;sup>a</sup> The concept of the dental care program ('Mondzorgtraject' – 'Trajet de soins bucco-dentaires') is 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

in which many children/adolescents receive orthodontic diagnosis and/or treatment.

The lowest 'regular dental contact rate' is seen in children under 4 years old (15.6%) and in people aged 75 years and older (39.4%).

In the 2018 Health Interview Survey (HIS), the 'dental contact rate'<sup>b</sup> varied across age groups, with the highest rate in the 2-14 years old age group (75.4%) and the lowest rate in the seniors (aged  $\geq$  75 years, 43.0%). The higher attendance rates in the HIS compared to administrative IMA-AIM data are logical as they are based on self-report.<sup>17</sup>

The HIS (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 dentist in the preceding year, while the respective proportion is 78.1% in the highest educational level group (superior education).<sup>15</sup> A recent study using the HISlink 2018 reported that the prevalence of having received preventive dental care was significantly higher among individuals with sufficient level of health literacy than those with insufficient/limited level of health literacy (41.4% vs 37.2%).<sup>18</sup> In addition, health literary served as a pathway by which socioeconomic status affected preventive dental care, suggesting that strategies for improving preventive dental care may benefit from considering individuals' level of health literacy. However, the mediated percentages were quite low (3%), which might suggest a shared decision between physician and patients.<sup>18</sup>

# In the HIS, the 'dental contact rate' was defined as the properties of the adu

#### In the HIS, the 'dental contact rate' was defined as the proportion of the adult population aged 18 years and over who had least one contact with a dentist in 2018, for preventive care.

## **Regional comparison**

Again, as was also observed in the preceding years, the regular dental attendance rate was higher in Flanders (57.6%) than in Wallonia (48.7%) and Brussels (47.4%) in 2021 (Table 1, Figure 1).

## Table 1 – Regular contact with a dentists, by year and patient characteristics (2010-2021)

Variable	Category	Proportion of the population who had a regular contact with a dentist (%)
Year	2010	48.5
	2011	48.8
	2012	49.2
	2013	49.1
	2014	49.8
	2015	51.9
	2016	54.1
	2017	55.3
	2018	55.5
	2019	55.7
	2020	54.4
	2021	53.8
Age (2021) (years)	3-4	15.6
	5-14	66.6
	15-17	70.8
	18-24	52.6
	25-44	52.3
	45-64	57.9
	65-74	54.4
	≥75	39.4
BIM status (2021)	Yes	42.0
	No	56.8
Province (2021)	Antwerpen	56.5
	Brabant Wallon	54.7
	Brussels	47.4
	Hainaut	43.6
	Liège	53.5
	Limburg	60.3
	Luxembourg	46.4
	Namur	48.1
	Oost-Vlaanderen	56.9
	Vlaams Brabant	57.8
	West-Vlaanderen	58.0

Region (2021)	Brussels	47.4
	Flanders	57.6
	Wallonia	48.7

Source: IMA-AIM Atlas; BIM status: beneficiary of increased reimbursement.

# Figure 1 – Regular contact with a dentist (% pop aged 3+), by patient region (left 2010-2021) and district (right, 2021)



Source: IMA-AIM Atlas

#### **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.

# Key points

- Just a little over half of the Belgian population had a regular dental contact (i.e. at least twice in two different years during the last three years) in the period 2019-2021.
- The population having a regular dental contact increased between 2010 and 2019, and decreased slightly after 2019.
- The proportion of the population with the highest regular attendance rate is seen in the age groups 5-14 years (67%) and 15-17 years (71%).
- As was also observed in the preceding years, the regular dental attendance rate was higher in Flanders (58%) than in Wallonia (49%) and Brussels (47%) in 2021.
- It is difficult to benchmark these data with other countries, since the IMA-AIM atlas indicator "regular dental visit" is not a standard indicator in the international litterature.

## 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.
- 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. Stennett M, Tsakos G. The impact of the COVID-19 pandemic on oral health inequalities and access to oral healthcare in England. British Dental Journal. 2022;232(2):109-14.
- 9. Charalambous C, Syngelakis AI, Kantaris M. Impact of the COVID-19 Pandemic on the Provision of Dental Care by the Public Dental

Services of Cyprus. European Journal of Dental and Oral Health. 2023;4(2):21-8.

- 10. Choi SE, Simon L, Basu S, Barrow JR. Changes in dental care use patterns due to COVID-19 among insured patients in the United States. The Journal of the American Dental Association. 2021;152(12):1033-43.e3.
- 11. Qu X, Yu C, He Q, Li Z, Houser SH, Zhang W, et al. Effect of the COVID-19 Mitigation Measure on Dental Care Needs in 17 Countries: A Regression Discontinuity Analysis. Frontiers in Public Health. 2022;10.
- 12. Carvalho JC, Declerck D, Jacquet W, Bottenberg P. Dentist Related Factors Associated with Implementation of COVID-19 Protective Measures: A National Survey. Int J Environ Res Public Health. 2021;18(16).
- 13. RIZIV INAMI. Het mondzorgtraject: betere terugbetaling bij regelmatig tandartsbezoek [Web page].2017 [cited 13 December 2018]. Available from: <u>https://www.riziv.fgov.be/nl/publicaties/jv2016/themas/Paginas/mo</u> <u>ndzorgtraject.aspx</u>
- 14. Sciensano. Belgian Health Interview Survey Interactive Analysis. Module: Health and Social Services [Web page].Brussels: Sciensano;2021. Available from: https://www.sciensano.be/en/projects/health-interview-survey/hisia

- Maertens de Noordhout C, Devos C, Adriaenssens J, Bouckaert N, Ricour C, Gerkens S. Health system performance assessment: care for people living with chronic conditions. Health Services Research (HSR). Brussels: Belgian Health Care Knowledge Centre (KCE); 2022 04/2022. KCE Reports 352 Available from: <u>https://kce.fgov.be/sites/default/files/atoms/files/KCE\_352C\_HSPA\_ Chronic\_Conditions\_Report.pdf</u>
- 16. Times TB. Dental delays leading to 'complications unseen since the 70s' [Web page].Brussels;2021 [cited 17/07/2023]. Available from: <u>https://www.brusselstimes.com/148806/dental-delays-leading-to-</u>complications-unseen-since-the-70s
- 17. Van Der Heyden J. Raadplegingen bij de tandarts. Wetenschappelijk Instituut Volksgezondheid; 2015. Gezondheidsenquête 2013. Rapport 3: Gebruik van gezondheidsen welzijnsdiensten. Available from: <u>https://his.wivisp.be/nl/Gedeelde%20%20documenten/DC NL 2013.pdf</u>
- Berete F, Charafeddine R, Demarest S, Van der Heyden J. hisLINK

   Mediating effect of health literacy on the relationship between socioeconomic status and health(-related) outcomes. Brussels, Belgium: Sciensano; 2023. D/2023.14.440/48 Available from: <u>https://www.sciensano.be/sites/default/files/hislink</u> -<u>preliminary\_report\_mediation\_analysis\_final.pdf</u>