

Netherlands



17 435

Total population in thousands
(2020)¹



6 248

Per capita current health expenditure
in PPP, int\$ (2019)²



ORAL HEALTH COUNTRY PROFILE

ORAL DISEASE BURDEN

Prevalence of oral diseases (2019) ³			
Prevalence of untreated caries of deciduous teeth in children 1-9 years (%)	Prevalence of untreated caries of permanent teeth in people 5+ years (%)	Prevalence of severe periodontal disease in people 15+ years (%)	Prevalence of edentulism in people 20+ years (%)
31.6	29.2	17.3	16.8

Lip and oral cavity cancer, all ages (2020) ⁴	Female	Male	Total
Number of new cases	673	885	1 558
Incidence rate (per 100 000 population)	3.4	5.2	4.3

RISK FACTORS FOR ORAL DISEASES

Risk factors (2019) ⁵	Female	Male	Total
Per capita availability of sugar (g/day)	...	...	98.4
Prevalence of current tobacco use, 15+ years (%)	20.3	24.8	22.6
Per capita alcohol consumption, 15+ years (litres of pure alcohol/year)	4.5	14.9	9.7

ECONOMIC IMPACT

Economic impact related to treatment and prevention of oral diseases (2019) ⁶	
Total expenditure on dental healthcare in million (US\$)	3 678
Per capita expenditure on dental healthcare (US\$)	213
Total productivity losses due to 5 oral diseases in million (US\$)	4 868
Affordability of fluoride toothpaste	affordable
Number of labour days needed to buy annual supply of fluoride toothpaste per person	0.2

NATIONAL HEALTH SYSTEM RESPONSE

Policies, measures and resources (2021) ⁷	
Implementation of tax on sugar-sweetened beverages (SSB)	no
Existence of a national oral health policy/strategy/action plan (operational/drafting stage)	no
Presence of dedicated staff for oral health working on NCDs at the MoH	yes
Noma recognized as a national public health problem	no

Oral health workforce ⁸	Data year	Total number	Per 10 000 population (2014-2019)
Dental assistants and therapists	2019	20 700	12.1
Dental prosthetic technicians	2019	4 585	2.7
Dentists	2019	11 195	6.5

Availability of procedures for detecting, managing and treating oral diseases in the primary care facilities in the public health sector (2021)⁹

Oral health screening for early detection of oral diseases	available
Urgent treatment for providing emergency oral care & pain relief	available
Basic restorative dental procedures to treat existing dental decay	available

Oral health interventions as part of health benefit packages (2021)¹⁰

Coverage of the largest government health financing scheme (% of the population)	100
Routine and preventive oral health care	yes
Essential curative oral health care	yes
Advanced curative oral health care	yes
Rehabilitation oral health care	no

NOTES AND REFERENCES

¹ Total population in thousands (2020)

Population estimates as of 1 July 2020 presented in thousands.
(Data source: United Nations, Department of Economic and Social Affairs (DESA), Population Division. World Population Prospects 2022, Online Edition; 2022.)

² Per capita current health expenditure in PPP int\$ (2019)

Per capita current expenditures on health expressed in respective currency - international Purchasing Power Parity (PPP) dollar.
(Data source: WHO Global Health Observatory; 2019.)

ORAL DISEASE BURDEN

³ Prevalence of oral diseases (2019)

Estimated prevalence of untreated caries of deciduous teeth in children 1-9 years: Rate of children between 1-9 years who have untreated caries in one or more deciduous teeth. Untreated caries is defined as a lesion in a pit or fissure, or on a smooth tooth surface, that has an unmistakable cavity, undermined enamel, or a detectably softened or floor or wall (coronal caries), or feels soft or leathery to probing (root caries).

Estimated prevalence of untreated caries of permanent teeth in people 5+ years: Rate of persons older than 5 years with one more carious permanent teeth. Untreated caries is defined as a lesion in a pit or fissure, or on a smooth tooth surface, that has an unmistakable cavity, undermined enamel, or a detectably softened floor or wall (coronal caries), or feels soft or leathery to probing (root caries).

Estimated prevalence of severe periodontal disease in people 15+ years: Rate of persons aged 15 years and older affected by severe periodontal disease, a chronic inflammation of the soft and hard tissues that support and anchor the teeth. Severe periodontal disease is defined as a gingival pocket depth equal or more than 6 mm, or Community Periodontal Index of Treatment Needs (CPITN) also referred to as Community Periodontal Index (CPI) score of 4, or a clinical attachment loss (CAL) more than 6 mm.

Estimated prevalence of edentulism in people 20+ years: Rate of persons older than 20 years with complete loss of natural teeth.

Estimated prevalences from the Institute of Health Metrics and Evaluation (IHME) Global Burden of Disease Study 2019 (GBD2019) were computed by using population data from UN DESA World Population Prospects 2019 and applying them to disease-relevant age groups.
(Data source: Global Burden of Disease Collaborative Network. GBD 2019. Seattle: IHME; 2020.)

⁴ Lip and oral cavity cancer (2020)

Estimated number of new cases lip and oral cavity cancer: Estimated number of new cases of lip and oral cavity cancer in females, males and total population all ages.

Estimated incidence rate of lip and oral cavity cancer (per 100 000 population): Age-standardized incidence rate of lip and oral cavity cancer in females, males and total population all ages per 100 000 population.
(Data source: Ferlay et al. Global Cancer Observatory: Cancer Today. International Agency for Research on Cancer: Lyon, France; 2020.)

RISK FACTORS FOR ORAL DISEASES

⁵ Risk factors (2019)

Per capita availability of sugar (g/day): The availability of sugar is based on sugar (raw equivalent) including i) raw cane or beet sugar, ii) cane sugar, centrifugal, iii) beet sugar, iv) refined sugar and v) sugar confectionery for national consumption and then computed as grams available per person and day.
(Data source: United Nations Food and Agriculture Organization. Food Balance Sheets; 2019.)

Prevalence of current tobacco use, 15+ years (%): The percentage of the population aged 15 years and older who currently use any tobacco product (smoked and/or smokeless tobacco) on a daily or non-daily basis (age-standardized rate).

Per capita alcohol consumption, 15+ years (litres of pure alcohol/year): The total alcohol per capita consumption comprises both, the recorded and the unrecorded alcohol per capita consumption.
(Data source: WHO Global Health Observatory; 2019.)

ECONOMIC IMPACT

⁶ Economic impact related to oral diseases, treatment and prevention (2019)

Total expenditure on dental healthcare in million (US\$): Estimate of total annual national expenditure on dental healthcare in outpatient dental care (public and private) in 2019.

Per capita expenditure on dental healthcare (US\$): Estimate of the annual national per capita expenditure on dental healthcare for outpatient dental care (public and private) in 2019.

Total productivity losses due to 5 oral diseases in million (US\$): Estimate of total productivity losses in 2019 resulting from combined impact of 5 untreated oral diseases including caries in deciduous and permanent teeth, severe periodontal disease, edentulism, and other oral conditions as defined by GBD.
(Data source: Jevdjevic & Listl 2022.)

Affordability of fluoride toothpaste (number of labour days needed to buy annual supply of fluoride toothpaste per person): Number of labour days needed to buy the recommended annual supply of fluoride toothpaste for one person based on the daily wage of the lowest-skilled government worker. Fluoride toothpaste is categorized as affordable if one day or less (≤ 1) of labour is needed and as unaffordable if more than one day (>1) of labour is needed to buy the annual supply for one individual.
(Data source: WHO; 2019.)

NATIONAL HEALTH SYSTEM RESPONSE

⁷ Policies, measures and resources (2021)

Implementation of tax on sugar-sweetened beverages (SSB): Status of implementation of taxes on sugar sweetened beverages (SSB). "Yes" responses refer to the application of excise taxes and/or special VAT/sales tax rates.

Existence of a national oral health policy/strategy/action plan (operational/drafting stage): Status of implementation of a policy, strategy or action plan for oral health. "Yes" refers to a policy, strategy, or action plan for oral health that is operational or under development, and "no" refers to a policy, strategy, or action plan for oral health that is not in effect or where no response was given.

Presence of dedicated staff for oral health working on NCDs at the MoH: Presence of technical/professional staff in the unit/branch/department working on NCDs in the Ministry of Health dedicating a significant portion of their time to oral health.
(Data source: WHO NCD Country Capacity Survey, NCD CCS; 2021.)

Noma recognized as a national public health problem: Noma (cancrum oris) is a non-communicable necrotizing disease that starts as a lesion of the gums inside the mouth and destroys the soft and hard tissues of the mouth and face. Countries are part of the Regional Noma Control Programme in the WHO African Region and recognize noma as a national public health problem.
(Data source: Regional Noma Control Programme in WHO African Region; 2021.)

⁸ Oral health workforce

Dental assistants and therapists: Dental assistants and therapists provide basic dental care services for the prevention and treatment of diseases and disorders of the teeth and mouth, according to care plans and procedures established by a dentist or other oral health professionals. The category of dental assistants and therapists also includes dental hygienist and dental nurses.

Dental prosthetic technicians: Dental prosthetic technicians design, fit, service and repair dental devices and appliances following prescriptions or instructions established by a health professional. They may serve a wide range of support instruments to correct dental problems, such as dentures, and dental crowns and bridges.

Dentists: Dentists diagnose, treat and prevent diseases, injuries and abnormalities of the teeth, mouth, jaws and associated tissues by applying the principles and procedures of modern dentistry. They use a broad range of specialized diagnostic, surgical and other techniques to promote and restore oral health.

Per 10 000 population (2014-2019): Describes the ratio of the respective oral health professionals per 10 000 population (latest available data between 2014-2019).
(Data source: The National Health Workforce Accounts (NHWa) data platform, WHO; 2020.)

⁹ Availability of procedures for detecting, managing and treating oral diseases in primary care facilities of the public health sector (2021)

"Generally available" refers to reaching 50% or more patients in need whereas "generally not available" refers to reaching less than 50% of patients in need.

- Availability of oral health screening for early detection of oral diseases.
- Availability urgent treatment for providing emergency oral & oral pain relief.
- Availability basic restorative dental procedures to treat existing dental decay.

(Data source: WHO NCD Country Capacity Survey, NCD CCS; 2021.)

¹⁰ Oral health interventions as part of health benefit packages (2021)

Inclusion of oral health interventions in public Health Benefit Packages: The extent to which oral health interventions are included in the largest government health financing scheme. The term "largest" is defined as having the highest total population eligible to receive services, while the term "government" is defined as including any public sector scheme for health service provision, including coverage for groups such as the general population, public sector employees and/or the military. Interventions comprise:

- Routine and preventive oral health care.
- Essential curative oral health care (including non- surgical extraction and drainage of abscesses).
- Advanced curative oral/dental care (including resin composite and dental amalgam including x-rays, complex fillings, root canal treatment).
- Rehabilitative oral health care (including crowns and bridges, dentures, orthodontics, dental implants).

(Data source: WHO Health Technology Assessment and Health Benefit Package Survey; 2021.)