Decayed, missing, filled teeth at age 12

Average number of teeth missing, filled or decayed in children at age 12.

Sources and Methods

Australia

Sources:

Methodology:
1996 to 2004: data are adjusted for the estimated under-reporting of clinically detectable decayed teeth in NSW. The under-reporting resulted from a change to the program in NSW in 1996.
2010: New South Wales was excluded from the data collection due to a lack of representativeness of the sample.
Data from Victoria were not available.

Austria

From 1997: "Zahnstatuserhebung 12-jährige" (five-year issues).
Until 1993: "Zahnstatuserhebung" (various issues).

Break in time series: Break in 2007 due to a change in criteria for D3 (ICDAS is stricter than the WHO Guideline).
Further information: http://www.oebig.at

Belgium

Sources:


Coverage:
- 2013: Flanders Region.
- 2012: Provinces of Luxembourg: 0.92 (population: 271352) and Hainaut: 0.79 (population: 1317284).
- 1986: Children in Deinze.
- 1983: Children in Liege.

Canada


Note: This information is no longer produced.

Chile

Sources:
1996-1999: National survey made in 3 stages:

⚠️ Break in time series: The methods of assessing dental caries in the survey made in 1992 and 1996-1999 were different from the study carried out in 2007.
   - The 2007 survey used the DMFT index suggested by the WHO in the Oral Health Survey Fourth edition. In 1997, the M component was defined by teeth missing due to caries. The other studies, however, used the
original index created by Klein & Palmer where the M component was the sum of teeth missing by caries and teeth indicated for extraction.

**Further information:** For 2007 data, see [http://web.minsal.cl/portal/url/item/7f2e0f67ebbc1bc0e04001011e016f58.pdf](http://web.minsal.cl/portal/url/item/7f2e0f67ebbc1bc0e04001011e016f58.pdf) (in Spanish).

**Czech Republic**

**Source:** Institute of Dental Research, Institute of Health Information and Statistics of the Czech Republic.

**Methodology:**
- Sample survey on tooth status and treatment.
- Data available for the years 1987 (651 respondents), 1994 (10363 respondents), 1997 (681 respondents), 2000 (590 respondents), 2003 (5832 respondents) and 2006 (4287 respondents).
- The survey has not been conducted since 2006.


**Denmark**

**Source:** National Board of Health. Sundhedsstyrelsen Centrale Odontologiske Register (SCOR).

**Further information:** [http://www.sst.dk/English.aspx](http://www.sst.dk/English.aspx).

**Estonia**

**Sources:**
1998: Chief Dental Officer.

**Finland**

**Sources:**
Since 2011: Data from AvoHilmo (Primary Health Care Register).

**Methodology:**
- **Since 2011:** mean DMFT for all 12 year-olds attending public dental services during the statistical year, N=19 700 to 23 600 equalling 33% to 41% of total year cohort.
- **Until 2009:** Separate Health Centre Surveys (every 3 years).

☝ **Break in time series in 2011** due to a new source.


**France**

**Sources:**

**Methodology:**
1993, 1998 and 2006: These surveys are based on national representative samples of children aged 12 years old living in metropolitan France. The DMFT index (called CAO index in France) is computed based on the number of permanent teeth at age 12.

**Further information:**
- Note: Surveys on this type of indicator do not exist in France anymore. However, another data source is the use of periodic health surveys at schools with a section about oral health. Such a survey concerns teenagers aged 13 and 14
years old. Results of the latest survey (2008-2009) show the following: 55.5% of children have all teeth undamaged; the average number of decayed teeth is 1.2; 4.7% of children have at least 2 decayed teeth not treated and 28.3% wear braces. The next survey was carried out in 2016-2017 with results to be made available in 2019.

**Germany**

**Sources:**

⚠️ **Break in time series:** Until 1995, results are extrapolated on the basis of data referring to selected Länder only.

**Greece**

**Sources:** Data are derived from the following surveys:
- 1998: Chief Dental Officer.

**Hungary**

**Source:** Prevention Service for Child Dental Care of Budapest.

**Methodology:**
- It is based on a representative sample of approximately 550 persons.
- 1985-2013: The survey is based on a representative sample of approximately 900 persons. Data collection started in 1985 and takes place every 5 years.

**Iceland**

**Sources:**

**Methodology:**
Clusters were all school classes: 1st, 7th and 10th grade (6, 12 and 15-year-olds).
Sample selection based on place of residence (urban or rural) and size of schools.
Approx. 20% of all 12-year-old children in the country were sampled.
The International Caries Detection and Assessment System (ICDAS II) was used as criteria for dental caries.
(http://www.icdas.org/).
Dental Examinations were performed in the schools at during school hours using portable chairs, light and air. Examinations were performed after a thorough tooth cleaning and drying of teeth, not using a probe. Digital bite-wing radiographs were also taken and the results of adding the information from the x-rays to the results from the visual examinations (1.43) were DMFT = 2.12 (std.dev.2.35) for the 12-year-old children.

Break in time series: Break in series as of 2005 due to a change in methodology.

Ireland

Source: DFMT Index - Regional Health Services Resource centre, University College Cork, Cork.

Israel

Source: Ministry of Health, Division of Dental Health.
Ministry of Health.


Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities.
The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Italy

Source: WHO Health For All Database (HFA).
Methodology:
- WHO HFA note for Decayed, missing or filled teeth at age 12 - DMFT-12 index: Measured by a survey of a sample of 12-year old children (average number of decayed, missing and filled teeth). Some data have been reported in the past in the framework of the Health For All monitoring and evaluation exercise. Presently, data are collected by the WHO Oral Health Programme and corresponding WHO Collaborating Centre in Malmö, Sweden.

Data have been obtained from standard surveys created by the WHO or from published literature using comparable methods and are working estimates rather than being fully representative. Therefore, the international comparability is limited.

Japan

Sources:
Korea

Sources:

Methodology:
- National dental health survey has been conducted every 3 years from 2000. The survey was delayed in 2009 due to the influenza epidemic.
- The sample size of the survey in 2015 was 44,967 children aged 12 years old.


Latvia

Source: Centre for Disease Prevention and Control, State statistical report on dental care.
Coverage: All Latvia.
Deviation from the definition: Only about examined children who have visited a dentist.

Luxembourg

Source: Ministry of Health, Health Directorate, Division of dental medicine at school.
Coverage: Data refer to children at 12 years of age (and thus correspond to the OECD definition).

Mexico

Sources:

Coverage: These data refer only to the State of Mexico.

Netherlands

Sources:
2000 and 2002: WHO Health For All database.
1961-1999:


Methodology: The second and the third publication for 1961-1999 data report on two series of rather small surveys in various municipalities. When there was more than one such survey in one year, a weighted average was calculated.
New Zealand

**Source:** **Ministry of Health** (Community Oral Health Services).

**Coverage:** Data come from the Community Oral Health Services annual survey of year 8 school children. Therefore, the average age may be slightly above 12 years old.


Norway

**Source:** **Statistics Norway, Dental health care statistics.**

**Methodology:**
- Since the beginning of the 1970s, the Norwegian Board of Health collected data about the dental health service. The collection of data from the county dental officers has been a part of KOSTRA (Municipality-State-Reporting) since 2001.
- The figures include DMFT for all 12 year olds treated by the public dental health service.

**Further information:** [http://www.ssb.no/tannhelse_en](http://www.ssb.no/tannhelse_en).

Poland

**Source:** **WHO Oral Health Country/Area Profile Programme.**


1998: Chief Dental Officer (CDO).


Portugal

**Sources:**


**Methodology:**

2015: Data are based on a national survey according to the EGOHIDII.

2000 and 2006: Data are based on a national survey according to the WHO - Oral Health Survey.

1990: Data for 1990 are based on a sample of 705 children at age 12.

Slovak Republic

**Sources:**

From 2001 onwards: **National Health Information Center (NHIC).**

1998: **Chief Dental Officer (CDO).**


Slovenia
Source: Systematic Review of the Teeth and Oral Cavity Among School Children - Data from the National Institute of Public Health (NIJZ).

Methodology: This data form is filled in by the Special Adviser of the Dental Clinic for Children and Youth.

Note: No new data are currently available.

Spain

Source:

Sweden

Source: The National Board of Health and Welfare.
Coverage:
2011: Data on DFT from the county council of Örebro is missing (~3% of the 12-year-olds in Sweden).
Methodology:
- Sweden does not use DMFT as there are practically no children with missing teeth. Instead, only the measure of DFT is used.
Further information: http://www.socialstyrelsen.se/english.

Switzerland

Coverage: The time series (data every four years) is based on a sample of 16 communities in the Zurich canton.

Turkey

Sources:

United Kingdom

Sources:
1983: ‘Children’s Dental Health in the United Kingdom 1983’ report by Jean Todd, Tricia Dodd, Social Survey Division, OPCS.


United States

Sources:

Coverage: National representative sample of the U.S. civilian non-institutionalised population.
Methodology: NHANES dental caries data were collected at the tooth-level.
- Beginning in 1999, the National Health and Nutrition Examination Survey (NHANES) became a continuous, annual survey rather than the periodic survey it had been in the past (June 2004 version, NHANES Analytic Guidelines). The midpoint is considered the first part of the second year (2-year data cycle). Hence 1999-2000 is 2000, and 2001-2002 is 2002.

http://www.oecd.org/health/health-data.htm