1. HEALTH STATUS

1.10. Dental health among children

Dental problems, mostly in the form of caries (tooth decay) and gum disease, are common in developed countries, affecting 60-90% of school children and the vast majority of adults (WHO, 2003). People with poor oral health may experience pain and discomfort, functional impairment, low self-esteem and dissatisfaction with their appearance. Dental and other oral diseases thus represent a major public health problem. Dental diseases are highly related to lifestyle factors, which include a high sugar diet, while also reflecting whether or not protective measures such as exposure to fluoride and good oral hygiene are present. Much of the burden of dental disease falls on disadvantaged and socially marginalised populations (WHO, 2003), and children are especially vulnerable. Treatment of dental disease in developed countries is often costly, although many countries offer free or subsidised dental care for children and adolescents (see also Indicator 6.6 "Inequalities in dentist consultations").

In 2006, or the closest available year, 12-year-old children in Germany, the United Kingdom, Denmark, Luxembourg, the Netherlands and Switzerland had an average of less than one decayed, missing or filled permanent tooth (DMFT) (Figure 1.10.1). In contrast, children in Poland and Hungary had a DMFT score of three or more. Most OECD countries had a very low to low score of between one and two DMFT for 12-yearold children.

The past 25 years have seen substantial falls in the DMFT index across OECD countries, declining from an average 4.7 in 1980, to 2.7 in 1990, and 1.5 in 2006 for a consistent group of countries with long time series (Figure 1.10.3). During that period, all but one country (Poland) for which data are available saw declines in DMFT of 50% or more (Figure 1.10.2) – a substantial public health achievement. Almost all OECD countries were able to meet the World Health Organisation target of no more than three DMFT by the year 2000 (WHO, 2003). However, there is cause for concern among some countries such as Australia, Austria and the United States, which have seen a slowing of the decline, or even an increase in DMFT in recent years.

Reductions in caries and other dental problems were achieved through numerous public health measures such as community water fluoridation, along with changing living conditions, disease management and improving oral hygiene. Dentistry and oral health is moving towards preventive and minimally invasive care, meaning that national strategies are being integrated with broader chronic disease prevention and general health promotion goals, since the risks for each are linked (European Commission, 2008b; Petersen, 2008). The common risk factor approach has a major benefit in that its focus is on improving health for the whole population, as well as for high risk groups.

Figure 1.10.4 shows little association between the number of DMFT among children and the number of dentists per capita. There are substantial differences in DMFT index scores among countries that have the same number of dentists per capita, indicating that many other factors affect dental health beyond the availability of dentists.

Definition and deviations

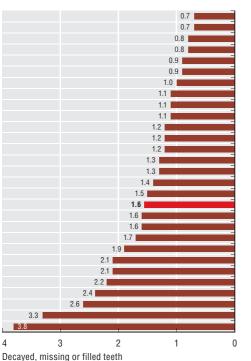
A common measure of dental health is the DMFT index. It describes the amount of dental caries in an individual through calculating the number of decayed (D), missing (M) or filled (F) permanent teeth. The sum of these three figures forms the DMFT index. In this instance, the data are for 12-year-old children. A DMFT index of less than 1.2 is judged to be very low, 1.2-2.6 is low, 2.7-4.4 is moderate, and 4.5 or more is high.

Norway provides an MFT index, which does not include decayed teeth. Sweden provides a DFT index, excluding a measure of missing teeth. The average age for New Zealand children may be slightly above 12, since Year 8 school children are surveyed. Data for Belgium and Switzerland are regional.

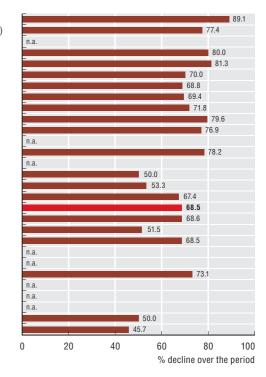
1.10. Dental health among children

1.10.1 Average number of decayed, missing or filled teeth, 12-year-old children, 2006 (or latest year available)

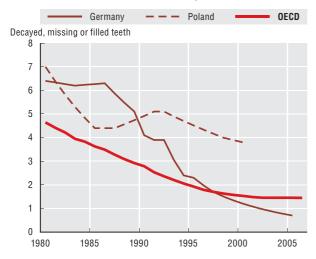
1.10.2 Decline in average number of decayed, missing or filled teeth, 12-year-old children, 1980-2006



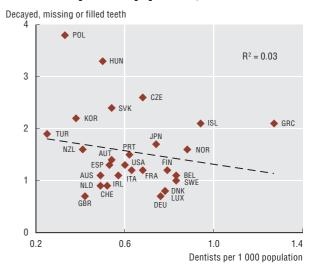
Germany (1980-2005) United Kingdom (1983-2005) Denmark (2006) Luxembourg (1982-2006) Netherlands (1980-2005) Switzerland (1980-2005) Sweden (1982-2005) Australia (1980-2004) Belgium (1983-2001) Ireland (1980-2002) Finland (1979-2003) France (2006) Italy (1980-2003) Spain (2005) United States (1980-2004) Austria (1980-2007) Portugal (1979-2006) OECD New Zealand (1980-2006) Norway (1982-2006) Japan (1981-2005) Turkey (2007) Greece (2005) Iceland (1983-2005) Korea (2006) Slovak Republic (2006) Czech Republic (2006) Hungary (1980-2001) Poland (1980-2000)



1.10.3 Average number of decayed, missing or filled teeth, 12-year-old children, selected OECD countries, 1980-2006



1.10.4 Average number of decayed, missing or filled teeth, 12-year-old children, and dentists per 1 000 population, 2006



StatLink and http://dx.doi.org/10.1787/717586274710

Source: OECD Health Data 2009.



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