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Preface

The Nordic Project to define Quality Indicators of Oral Health Care was started during the Finnish presidency of the Nordic Council of Ministers in October 2007. It was one of the four health care indicator projects financed by the Nordic Council of Ministers. The Nordic countries participating in the project are Denmark, the Faroe Islands, Finland, Iceland, Sweden and Norway.
At the end of 2010, the working group responsible for project implementation had agreed on 12 indicators of oral health care.
Extensive work was done to define the indicators and to ensure the quality of collected data. More quality indicators of oral health care will be needed in the future, and the working group recommends that this work continues.

It has been agreed that the country holding the presidency of Nordic Council would lead the project. In 2011, Finland played this role, and in 2012, Norway took over the responsibility.

This report will summarize the progress made by the project in 2012. Success of our work is mainly due to the excellent cooperation among the participating experts. I hope that the good work and cooperation will continue under the forthcoming Swedish presidency.

I would like to express my sincere thanks to the working group members: Lene Vilstrup, Sigrid Arge, Helga Ágústsdóttir, Marianne Appelquist, Andreas Cederlund, Anne Nordblad and Trond Ekornrud, and to all the experts who took part in the present project. My special thanks are due to my colleague Trond Ekornrud, who was responsible for statistics and is the co-author of this report.

Maren Mathiesen Wilberg
Project leader 2012

Content

Abstract

In 2012, Norway has been administrating the continuing work with Nordic cooperation and developing common Nordic quality indicators for oral health care. This report is a short summary of the work done in 2012. First of all, the aim of this report is to give updated data information on the 12 settled quality indicators on oral health and oral health care. Secondly, this report will give a summary of further work done by the working group in 2012. This includes extensive work in defining the indicators and ensuring the quality of collected data and a summary of the work with developing potential indicators.
The basic register data can be used for comparisons by the participating countries.

It is often challenging to compare figures and indicators across countries. Different definitions and data sources in different countries may cause difficulties in trying to interpret the results. It has to be kept in mind that some of the data are not entirely comparable across the countries. While some countries have a dental register as the data source for an indicator, another country only have data from some sort of survey for the same indicator.

Structural differences in dental health across countries can also help to explain some differences between the two countries when it comes to certain indicators. It is not always clear how it happens and what actual effect it has. In the Nordic countries, dental services are organized partly in a similar way and partly different. These are all factors that are important to take into account in the interpretation of results dealing with figures from different countries.

In an effort to find common Nordic quality indicators the working group has spent a lot of time to decide common definitions for the selected indicators. There are still several cases where different data sources, different data, and structural service variations have made it challenging to meet this requirement. More and better data sources across all Nordic countries can make it possible to get more comparable indicators. This would make it easier to benchmark across the Nordic countries in the future. However, more work is needed to develop indicators that are more precisely connected to quality.

The results from this report show a lot of the same tendencies as the working groups report from 2010 showed (http://www.thl.fi/thl-client/pdfs/a389b3ed-a262-44c5-bad0-b9d3eecdf089). It could be mentioned that the coverage of dental personnel seem to remain the same or improve across the Nordic countries. There is a positive decrease in the proportion with caries in all reported age groups, and another positive tendency is that more girls and boys are brushing their teeth daily than earlier, and fewer girls and boys are drinking sugared soft drinks daily. However, because of different dates of measurement for certain indicators, it is challenging to compare and interpret results across countries.

1 Introduction

1.1 Background

Monitoring and improving the quality of care has become a priority issue for policy makers, administrators and health professionals. The quality of health care and oral health care is of concern throughout the Nordic countries. The Nordic countries recognize the need to document and monitor the quality of health service and oral health service performance for transparency and for comparisons between the countries. Quality indicators are needed to improve the quality of oral health care on a documented basis and to move towards continuously improved outcomes of care.

The Nordic Project of Quality Indicators for Oral Health Care was started during the Finnish presidency of the Nordic Council of Ministers in October 2007. The project was one of the four health care indicator projects financed by the Nordic Council of Ministers. The Nordic countries participating in the project were Denmark, the Faroe Islands, Finland, Iceland, Sweden and Norway.
When the project ended in 2010, the working group had settled on 12 indicators for oral health care. The results can be found in the book: “Nordisk kvalitetsmåling i sundhedsvæsenet” (written in Danish), which can be downloaded from the link: http://www.norden.org/no/publikasjoner/publikasjoner/2010-572. A comprehensive project report “A Nordic Project of Quality Indicators for Oral Health Care”, was written in English and can be found through the following link: http://www.thl.fi/thl-client/pdfs/a389b3ed-a262-44c5-bad0-b9d3eecdf089.
The work has been continued thanks to active members of the working group. The members of the working group of the project from 2007-2010 agreed on continuing the cooperation. The motivation for this cooperation is the lack of common work on the field and common (quality) indicators in the Nordic countries. The current working group is the same as in 2010, and there is an agreement between the participating countries that the work will continue with administration following presidencies of the Nordic Council of Ministers. In this way, each Nordic country will administrate the work by turns, one year at a time. The work has been continued under the leadership by the country holding the presidency of the Nordic Council of Ministers. In 2011 the host country and leadership was Finland, and in 2012 it has been Norway.

1.2 Mandate and organization of the working group

Mandate
The working group made a mandate early in 2012. The mandate state the following tasks and liability for the work in 2012:
- Monitor and discuss the developing of European indicators about oral health care
- Develop existing indicators and assess new indicators
- Each country shall exchange updated information about the settled indicators and report data on new indicators if possible. This data is to be delivered to the country

with administrative responsibility.
- The country administrating the group has the responsibility to compile and publish the data
- Try to link this work with the OECD Health Care Quality Indicators project work.
- Extensive analysis of some of the indicators, such as:
    - More about the data source
    - Social aspects
    - Possible explanations for the differences between the Nordic countries
    - Benchmarking (what is the goal (if there is one) and comparisons to this goal)
    - What use has this, and what can we learn from each other?

The extensive analysis applies to the indicators:

a. DMFT
b. SiC-index
c. Number of teeth
d. The financing systems
e. Cost-benefit: how much do we use, and what do we get out of it?

See annex 1.

Meetings in 2012

Three meetings were organized in 2012. Two meetings were held in Oslo, Norway, and one in Reykjavik, Iceland. Each meeting started with the participants informing about the current issues in oral health and oral health care in their country.

The members of the working group

Denmark: Lene Vilstrup, Health and Medicines Authority (lvi@sst.dk)
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Norway: Trond Ekornrud, Statistics Norway (trond.ekornrud@ssb.no) and
Maren Mathiesen Wilberg, The Norwegian Directorate of Health (maren.wilberg@helsedir.no), Chairman of the project group in 2012.

Challenges

Administrating this project across nations required time and resources. Progress have been somewhat slowed due to delays in information exchange. We must strive to overcome this problem. However, the work is educational, and the information we share is very useful and interesting.

1.3 Oral health services in the Nordic Countries

This chapter will give a short presentation about the oral health services in the Nordic countries. Further information is described in detail in the comprehensive report published in 2010 (http://www.thl.fi/thl-client/pdfs/a389b3ed-a262-44c5-bad0-b9d3eecdf089).

Denmark

Public oral health care:

A) Oral health care for children and young people 0-17 years:

- Free of charge
- Organized by the municipalities
- Can be provided by public clinics or dentists with a private practice.
- The oral health care covers:
    - individual and general oral prevention and oral health promotion
    - regular oral clinical examination and dental care
- Orthodontic treatment after defined criteria.

B) Special Dental Care for vulnerable groups:

- A fixed maximum annual fee. This amount various between the groups.
- Organized by the municipalities
- The oral health care covers:
    - individual and general oral prevention and oral health promotion
    - regular oral clinical examination and dental care
- The groups are:
    - Adults (18+) who because of reduced mobility or reduced physical and psychological functional capacity not are abel to utilize the general oral health service for adults
    - Children and adults who because of mental illness or a mental handicap not are able to utilize the general oral health service for adults
    - Adults with Sjøgrens Syndrome, cancer, rare diseases

C) Highly specialised dental care

- Free of charge
- Organised by the regions
- Highly specialized dental care for children and adults who has oral diseases/ conditions that untreated leads to permanent disability (dental anomalies) and for patients with rare diseases and for whom the condition gives special problems in teeth, mouth and jaws.

Private oral health care:

- For adults (18 years+)
- Are provided by private dentists or dental hygienists' by patients own choice

Subsidy:

- The regions give partly subsidies to oral health care for adults with the priority on prevention and basic oral health care. Oral examination, scaling, individual prevention, treatment for dental caries and periodontal disease, root canal treatment, extractions and oral surgery are subsidized. The refund rates vary from 30–65 %, depending on the patients age and the actual treatment. For some oral health care services there are fixed prices while the dentists/ dental hygienist can set their own fee for other services.Other treatments like orthodontics, crowns and bridges and removable prosthodontics has to be paid by the patient in full (Full out of pocket payment).
- The social security law directs the municipalities to give subsidy to oral health care for people having a low income, receiving social security and pensioners.

Recognized specialties:

- Oral surgery (5-year curriculum) and orthodontics (3-year curriculum).
- All postgraduate specialists training are free of charge

Collecting patient data:

- For children (Public sector): Annually reported from the municipalities.to the national health and medicines authority, SCOR- register (Sundhedsstyrelsens Centrale odontologiske Register)
- For adults (Private sector): Annually reported indicators of oral health in selected age groups integrated in the national health insurance register.
- Surveys: Systematic national oral health questionnaire which are integrated in a national general health survey performed with 5 years interval.

The Faroe Islands

Public oral health care:

- For children (0–15 years)
- All treatment is free of charge, including orthodontic treatment
- Organized in three ways:
    1. Offered at a public clinic by dentists employed by the municipality.
    2. The municipality contracts a private practitioner of their own choice to treat the children.
    3. A “combined” dentist, who is part time employed by the municipality to take care of the children and part time the dentist functions as a private practitioner treating adults. The municipalities own the clinics and the dentists rent the equipment part time.

Private oral health care:

- For adults (16 years+)
- Are provided by private dentists or dental hygienists’ by patients own choice
- The patient pays one part of the fee to the dentist. The other part is claimed through the National Health Service. The main treatments, for which subsidies (45%) are partly given, include examinations, x-rays and diagnosis, fillings, oral surgery, periodontic and endodontic treatment.
- For most adults, anesthesia, orthodontics, crowns, fixed and removable bridges and implants has to be paid by the patient in full (Full out of pocket payment).
- Some treatments have a fixed price, and for some treatments, private dentists may set their own fees.

Subsidy:

Free dental care for adults is only available if:
a. the treatment needs to be carried out in a hospital
b. some congenital deformities of the jaws and teeth, i.e. orthognatic surgery of different kind and patients with cleft lip and palate
c. by application for social aid to the Faroese Social Service Department

Recognized specialties:

- Oral surgery (5-year curriculum) and orthodontics (3-year curriculum).
- No dentist education

Collecting patient data:

- For children (Public and private sector): Annually reported from the counties to IBM for statistical adaptation. The data are collected and compared in a report every other year. The report is written by dentist, commissioned by the Ministry of Health Affairs of the Faroe Islands.
- For adults (Public and private sector): None.
- Surveys: No systematic regular survey.

Finland

Public oral health care:

- For all people
- Organized by the municipalities
- All children under the age of 18 years are entitled to care free of charge, including necessary orthodontics and specialized care.
- Patients at 18 years of age or older pay fees of the oral health care services at a public clinic. A legislation from 2004 stated that any treatment that is considered ontologically necessary must be provided within a reasonable time frame, within six months at the latest.

Private oral health care:

- For all people
- For patients at 18 years of age or older who use private oral health care services, a part of the treatment costs will be covered by national health insurance.

Subsidy:

- The entire population is covered by oral health care services, and is also entitled to reimbursements by the Social Insurance Institution of Finland.
- Patient fees in the public sector at health care centers are regulated by the government.
- Patients under the age of 18 years are entitled to care free of charge and mostly uses public oral health care services.
- Patients at 18 years of age or older when using private oral health care services get reimbursement from the Social Insurance Institution with the exception of prosthetic treatment.

Recognized specialties:

- Oral and Maxillofacial Surgery (6-year curriculum)
- Orthodontics (3-year curriculum)
- Clinical Dentistry (3-year curriculum, including specialist studies in Cariology and Endodontology, Periodontology, Prosthodontics, Oral Radiology, Oral Pathology, Oral Microbiology, Paediatric Dentistry)
- From 1.1.2013 a new specialty of odontological diagnostic specialty Public Health (3-year curriculum, no clinical training included).

All postgraduate specialists training are free of charge

Collecting patient data:

- For children and adults (Public sector): reported every third year from the municipalities to National Institute of Health and Welfare
- For children and adults (Public sector): National Institute of Health and Welfare gathers online data from municipalities of oral health care services since 2012
- For adults (Private sector): the Social Insurance Institution of Finland gathers yearly data of reimbursed oral health care services
- Surveys: Health 2011 - a national survey

Iceland

Public oral health care:

- Oral health care in Iceland is provided solely by private practitioners. There are no public dental services in place.

Private oral health care:

- For adults (18 years - 66 years) : Full price
- For those under 18 years or 67 years and over: Partial reimbursement
- Private dentists set their own fees.

Subsidy:

- For those under 18 years or over 67 years of age as well as long-term patients and the disabled: The national health insurance scheme offers partial reimbursement of the cost of dental treatment for those under 18 years. 75% of the cost of most dental treatments, with the exception of gold crowns, bridges and orthodontics, are reimbursed. The Icelandic Health Insurance pays according to a public fee schedule set by the state. These fees are generally different from the fees used by private dental practitioners, since private dentists in Iceland set their own fees.
- 2007-2012: For 3-, 6- and 12-year-old children: Dentists had a contract with the state where these age groups were able to get an oral examination, fluoride varnish and prophylaxis with oral hygiene instructions and instructions on diet and lifestyle at a set fee which was reimbursed fully by the Icelandic Health Insurance. 12-year-old children also got x-rays if needed.
- The Government plans to make contracts with dentists on all dental services for children in the year 2013. The plan is to implement the program stepwise in 5 years and the goal is to have all children fully covered by 1st of January 2018.

Recognized specialties:

Orthodontics, Oral Surgery, Oral Radiology, Endodontics, Periodontics, Pedodontics, Gerodontics, Prosthodontics, Public Dental Health, Occlusion, Operative Dentistry and Oral Medicine.

No specialist training is offered at the University of Iceland. Icelandic dentists seek their post-graduate training mostly in the Nordic countries and the USA.

Collecting patient data:

- For children (Public sector): As a part of the contract for children aged 3, 6 and 12 years old there was an obligation to collect data on the oral health of the children. The data has not yet been deemed reliable enough to use as the national average for DMFT in children. The plan is to collect the data from dentists electronically in the future.
- For adults (Private sector): No data is collected automatically or systematically.
- Surveys: No systematic regular surveys are initiated by the government. Regular national surveys on health and lifestyle that are performed every 2 years in general include questions on oral health but surveys with clinical oral examinations are more rare.

Sweden

Public oral health care:

- For all people

Private oral health care:

- For all people

For children (0–19 years) (Public or private):

- All treatment is free of charge, including specialist treatment
- Adults of all ages also have the right to use the public clinics within available resources.
- Patient fees, both in the public and private sectors, are not regulated by the government and the price for the patient may vary depending on their choice of dentist/dental hygienist.

Subsidy:

- The state supports dental care for people aged 20 or more:
    - Dental care voucher (a general dental care allowance): can be used as part payment for a dental care checkup at any dentist or dental hygienist. The value of the dental care voucher various for persons aged 30–74 years and for those aged 20–29 years and 75 years and older. The dental care voucher is issued every year and can be accumulated for two years.
    - High-cost protection scheme: Reimburses different percentages when a high sum of money is used on oral health care. Compensation levels are based on “reference prices”. Not all types of dental care are reimbursable under this support system. Based on a diagnosis made by the dental care provider or a predefined condition, certain measures qualify for dental care support. Preventive measures and treatment of diseases are given high priority.
- For specific groups of patients, for instance elderly people living either in nursing homes or their own homes with social and nursing support, there are special arrangements for both the provision and funding of oral health care. Such patients are often identified via free outreach activities.
- Patient fees, both in the public and private sectors, are not regulated by the government and the price for the patient may vary depending on their choice of dentist/dental hygienist.

Recognized specialties:

- Eight authorised specialties in dentistry: oral surgery, oral radiology, orthodontics, endodontics, periodontics, oral physiology, pedodontics and prosthodontics.
- Specialist training shall be a minimum of three years including clinical and theoretical education.
- All postgraduate specialists training are free of charge. While commissioned education might be imposed with a fee.

Collecting patient data:

- For children (Public and private sector): Each county council collect patient data from public and private sector. Annually.
- For adults (Private and public sector): The National Board of Health and Welfare have a dental health register. This is a register with dental information (diagnose and treatments) for all adults who have visited public or private clinics.
- Surveys:
    - Regularly, The National Board of health and welfare use surveys to county councils for collecting information about caries and caries free children for ages 3, 6, 12 and 19.
    - Regularly national survey for adults over the age of 20 years. Approximately 8400 people are asked. See the survey in annex 12.

Norway

Public oral health care:

- Organized and funded by the counties
- All oral health care and treatment is provided free of charge to these groups:
  a. Children and young people aged 0–18 years
  b. Mentally disabled persons both living in institutions and at home
  c. Groups of elderly and long-term care patients living in institutions or receiving care at home
  d. Youth aged 19 and 20 pay a 25% fee of public fees set by The Ministry of Health and Care Services
  e. Other groups that the county give priority to (optional to each county)
- The public clinics can also treat patients that do not belong to a group listed above if capacity allows. These people pay fees given from the regional public dental service.

Private oral health care:

- For adults (20 years+)
- Mostly provided by private dental care providers.
- Are provided by private dentists or dental hygienists' by patients own choice
- For most adults, all treatment has to be paid for in full by the patient.
- Patient fees, both in the public and private sectors, are not regulated by the government and the price for the patient may vary depending on their choice of dentist/dental hygienist.

Subsidy:

- The national health insurance offers partial reimbursement of the cost of some dental treatments for those over 18 years. Reimbursement is only available for dental treatment in conjunction with illness or as a consequence of illnesses, as well as necessary preventive care and treatment for priority groups specified in the Dental Health Services Act. The Health Insurance pays according to a public fee schedule set by the state. These fees are generally different from the fees used by public and private dental practitioners, since they set their own fees.
- Reimbursement for dental care is also possible by application for social aid to the The Norwegian Labour and Welfare Service.

Recognized specialties:

- Seven dental specialties: endodontics, orthodontics, oral radiology, pediatric dentistry, periodontics, prosthodontics and oral surgery/-medicine.
- The first six are three year studies, and oral surgery/-medicine is five.
- An eighth specialty; clinical dentistry (klinisk odontologi), is under evaluation at the University in Tromsø.
- All postgraduate specialists training are free of charge.

Collecting patient data:

- For children (Public sector): Annually reported from the counties to Statistics Norway.
- For adults (Private sector): No data collected automatically or systematically.

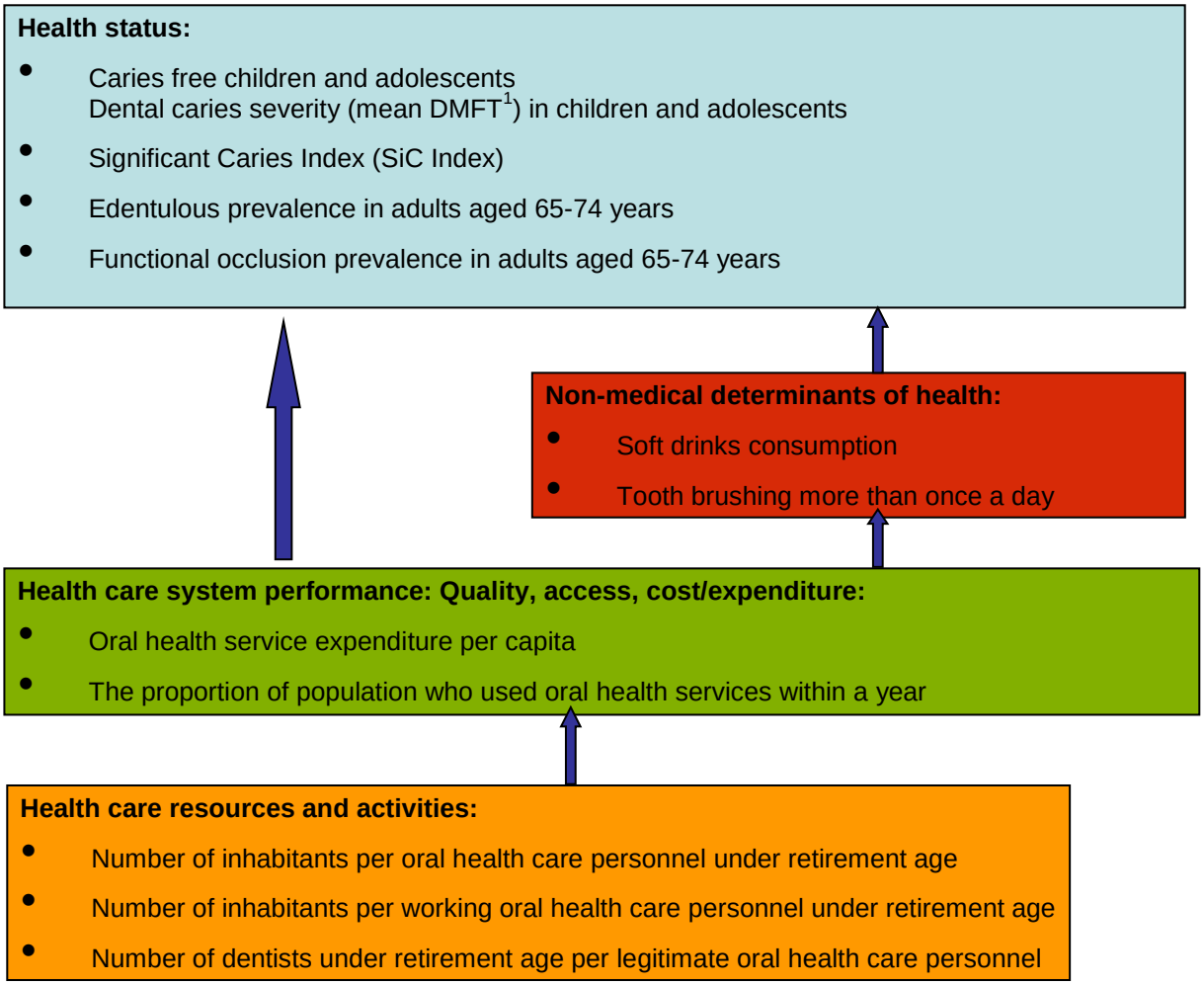
- Surveys: No systematic regular survey initiated by the government. Regularly survey for adults over the age of 20 years. Approximately 8500 people are asked. See the survey in annex 12.

2 The indicators

2.1 Selecting Nordic quality indicators for oral health care

Guiding principles in selecting the Nordic quality indicators of oral health care are described in detail in the comprehensive report published in 2010 (http://www.thl.fi/thl-client/pdfs/a389b3ed-a262-44c5-bad0-b9d3eecdf089).

Figure 1 illustrates the selected indicators Nordic quality indicators for oral health and how they are coherent with the OECD conceptual framework.



2.2 Background information (table)

	Denmark	The Faroe Islands	Finland	Iceland	Norway	Sweden
Year	**2011**	**2012**	**2011**	**2011**	**2011**	**2010**
Number of inhabitants	5 560 628	48 351	5 401 267	318 452	4 985 870	9 415 570
Licensed dentists under 65 year	5558	37	4331	303	6308	10557
Licensed oral hygienists under 65 year	2147	19	2094	36	1440	4747
Licensed specialist under 65 year		0	638	44	668	998
Licensed orthodontists	173	1	156	13	279	304
Licensed oral surgeons	60	0	102	5	87	154
Year	**2006**	**2012**	**2008**	**2011**	**2011**	**2009**
	5427459	48351	5 401 267	318452	4985870	9331619
Active dentists	5057	45	3850	277	4888	7457
Active oral hygienists	1444	19	:	15	1259	3612
Active specialists	201	0	:	41	553	839
Active orthodontists	142	2	:	13	220	264
Active oral surgeons	59	0	:	4	70	146

2.3 Results and findings

Between 2007 and 2010, the Nordic Project to define Quality Indicators of Oral Health Care established 12 indicators. They were chosen in accordance with the ECHI (European Community Health Indicators) recommendations, OECD recommendations, the EGOHID work (European Global Oral Health Indicators Development -Project) as applicable to Nordic conditions.

The list of indicators was divided into four groups:
1. Structure indicators
2. Process indicators
3. Outcome indicators
4. Potential quality indicators; indicators to be developed.

The following sections will present in tabular form data on these 12 proposed quality indicators, divided into three groups as described above. The participants at the working group meeting in May decided to write annexes with information about each indicator, and to share this task. It was unfortunately not delivered annexes with more information for indicator number 1, 5 or 9. See annex 3-11 for information about the other indicators.

2.3.1 Structure indicators

1. Number of inhabitants per oral health care personnel under retirement age:
1.1 Number of inhabitants/ licensed dentists
1.2 Number of inhabitants/ licensed oral hygienists
1.3 Number of inhabitants/ licensed specialist
1.3.1.1 Number of inhabitants/ licensed orthodontists
1.3.1.2 Number of inhabitants/ licensed oral surgeons

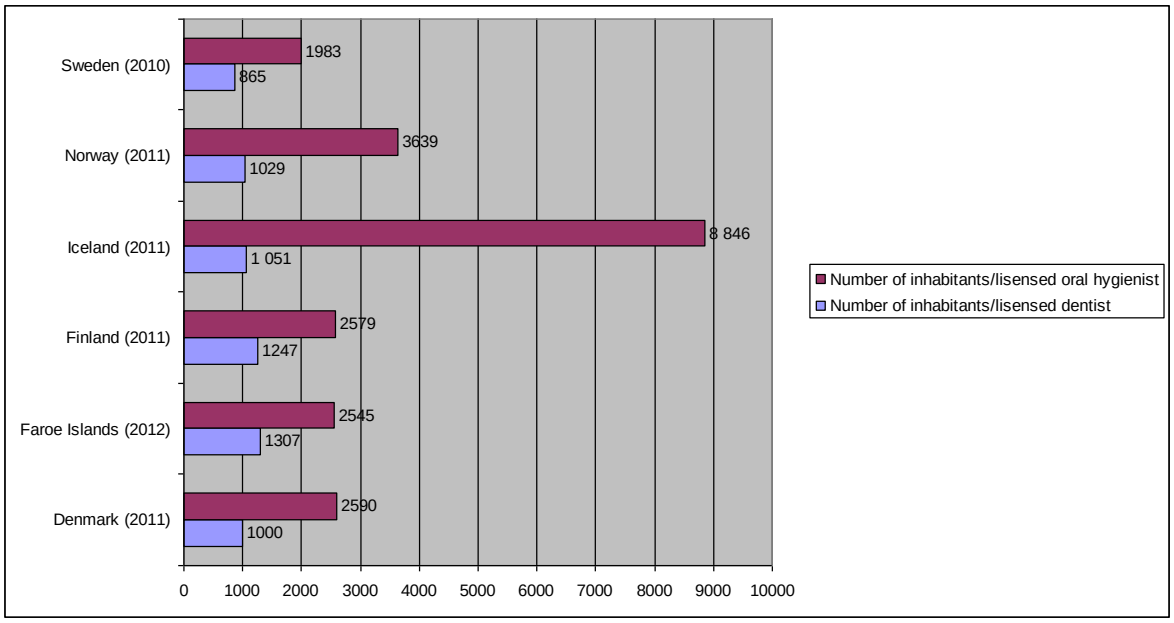
2. Number of inhabitants per working oral health care personnel under retirement age:
2.1 Number of inhabitants/ active dentists
2.2 Number of inhabitants/ active oral hygienists
2.3 Number of inhabitants/ active specialists
2.3.1.1 Number of inhabitants/ active orthodontists
2.3.1.2 Number of inhabitants/ active oral surgeons

3. Number of dentists under retirement age per legitimate oral health care personnel:
3.1 Number of licensed dentists / licensed oral hygienists
3.2 Number of licensed dentists / licensed specialist
3.3 Number of active dentists / active oral hygienists
3.4 Number of active dentists / active specialists

In the following sections, there will be figures for some of the indicators. For data on all indicators, see the background table in chapter 2.2.

2.3.1.1 The ratio between the number of inhabitants per licensed dentist and oral hygienist

Figure 2: Number of inhabitants/licensed dentists under retirement age and number of inhabitants/ licensed oral hygienists under retirement age

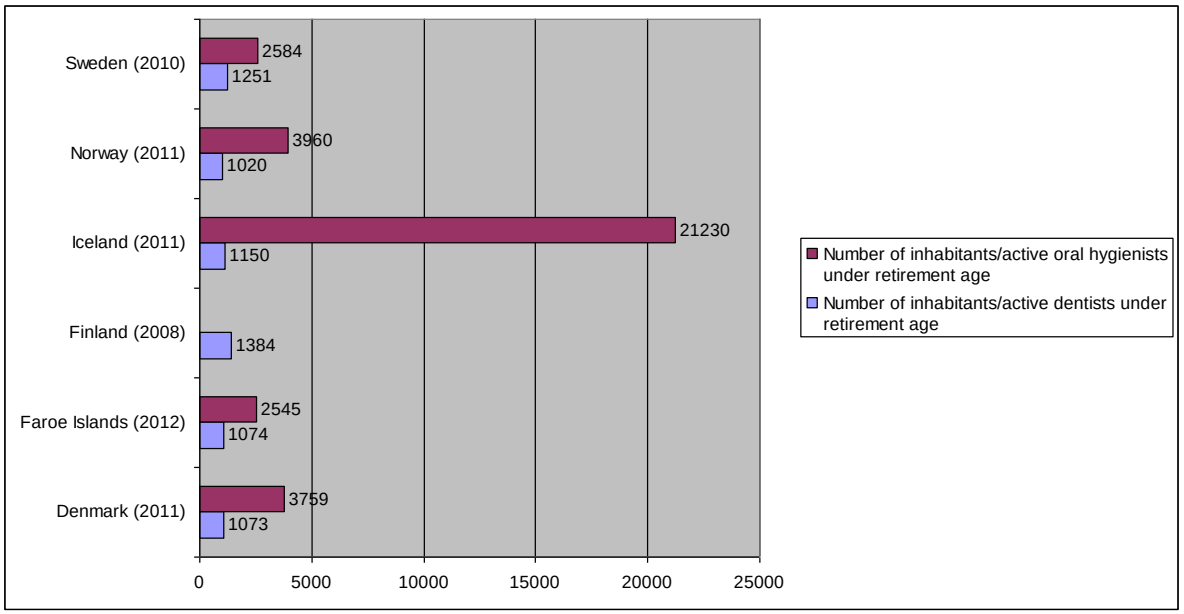


Findings: The number of inhabitants per licensed dentists under retirement age and number of inhabitants per licensed oral hygienists under retirement age are presented in Figure 2. The figure shows that Sweden has the lowest number of inhabitants per licensed dentist under retirement age, while Faroe Islands has the highest with 1307. Sweden also has the lowest number of inhabitants per licensed oral hygienist, while Iceland has the highest with 8846.

Figures show that the number of inhabitants per licensed dentist has been stable compared to figures two years ago. Finland has experienced a slightly better coverage, while the other Nordic countries have experienced a slight decrease in coverage. On the other hand, except in Denmark, the number of inhabitants per licensed oral hygienist has decreased in Nordic countries when compared to figures from two years ago.

2.3.1.2 The ratio between the number of inhabitants per active dentist and oral hygienist

Figure 3: Number of inhabitants/active dentist and oral hygienist under retirement age



Findings: The numbers of inhabitants per active dentists under retirement age are presented in Figure 3. The figure shows that Norway has the lowest number of inhabitants per active dentist under retirement age (1020), while Finland has the highest with 1384.

Background figures show a different development in coverage between the Nordic countries. While both Iceland and Sweden have had a decrease in coverage compared to two years ago, Norway, Faroe Islands and Finland all had an increase in coverage (Finland does not have updated figures of active dentists since the previous report).

The information about the licensed oral health workforce is available from registers but there is a need to have more information about the active workforce in some countries. For example in Sweden there is a considerable difference between the ratios of population per licensed dentists (865) and the ratios of population per active dentists (1 251) since many licensed dentists are working abroad.

There are still considerable differences in the ratio of licensed dentists per licensed specialist; in Denmark it was 24 and in Finland 6.4. These differences are mainly due to the different number of recognized specialities in the Nordic countries.

There are also differences in the ratio of active dentists per active oral hygienist; in Iceland it was over 18 and in Sweden 2.1.

2.3.1.3 *The annual cost of oral health care per inhabitant*

A System of Health Accounts
A System of Health Accounts (OECD, 2000) are designed to provide a model for uniform reporting for countries with different ways of organising their national health system, and to meet the needs of analysts of health care systems and policy makers.
The set of tables is based on common concepts, definitions, classifications and accounting rules in order to ensure comparability over time and across countries. Total health expenditure measures the final consumption of health care goods and services (i.e. current health expenditure) in addition to capital investment in health care infrastructure.

The health accounts provide a comprehensive accounting framework for the entire field of health care activities. The system presents health expenditure by function of care, by source of funding and by provider industry. The objective of the health accounts is to constitute a system of comprehensive, internally consistent and internationally comparable accounts, which should also be compatible with other aggregate economic and social statistics as far as possible.

The System of Health Accounts is organised around a tri-axial system of recording the health expenditure. The expenditure is grouped into the three following categories:
- Health care by function (HC)
- Health care service provider industries (HP)
- Sources of funding (HF)

Dental care is measured by the function HC 1.3.2 Out-patient dental care

For more see: http://www.oecd.org/

Table 1: Total expenditure per capita US$ purchasing power parity, Function “HC 1.3.2 Out-patient dental care”. 2005-2010.

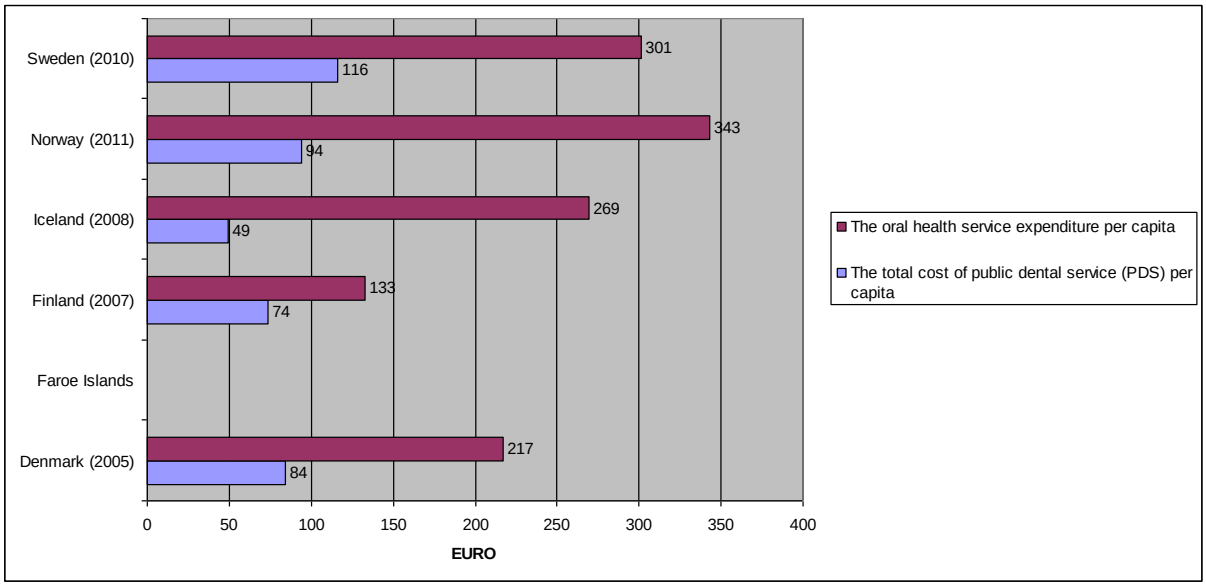
	2005	2006	2007	2008	2009	2010
Sweden	221	235	247	267	276	272
Norway	214	228	238	264	267	274
Iceland	211	202	205	213	207	204
Denmark	147	155	164	172	182	202
Finland	139	153	166	185	192	193

Source: OECD. System of a health account

Findings: Table 1 shows figures from OECD’s a System of Health Account. The figures are reported annually from all member states to the OECD, based on US$ spent on dental care (HC 1.3.2) during the period 2005-2010 for all Nordic countries. Norway and Sweden spent the most per capita with 274 and 272 US$ in 2010, while Finland and Denmark spent the least amount per capita with 193 and 202 US$ the same year.

Unfortunately, a System of Health Account does not show the specific data from private and public sector. This would have been useful asset when comparing the figures.

Figure 4: The total cost of public dental service (PDS) per capita and the total oral health service expenditure per capita in EURO



Findings: Figure 4 shows the total costs of public dental service per capita and the total oral health expenditure per capita in Euros. The total oral health service expenditure per capita was lowest in Finland with EUR 133 in 2007 and highest in Norway in 2011 with EUR 343.
The total cost of public dental service per capita is less than the total costs. Iceland (2008) has the lowest cost, EUR 49 and Sweden (2010) has the highest, EUR 116. Some of the differences in public expenditure on oral health care in Nordic countries are partly due to the organisational differences in their respective services. Background data shows an increase in both total costs and public costs per capita for those countries who have updated figures since the report two years ago (Sweden and Norway).

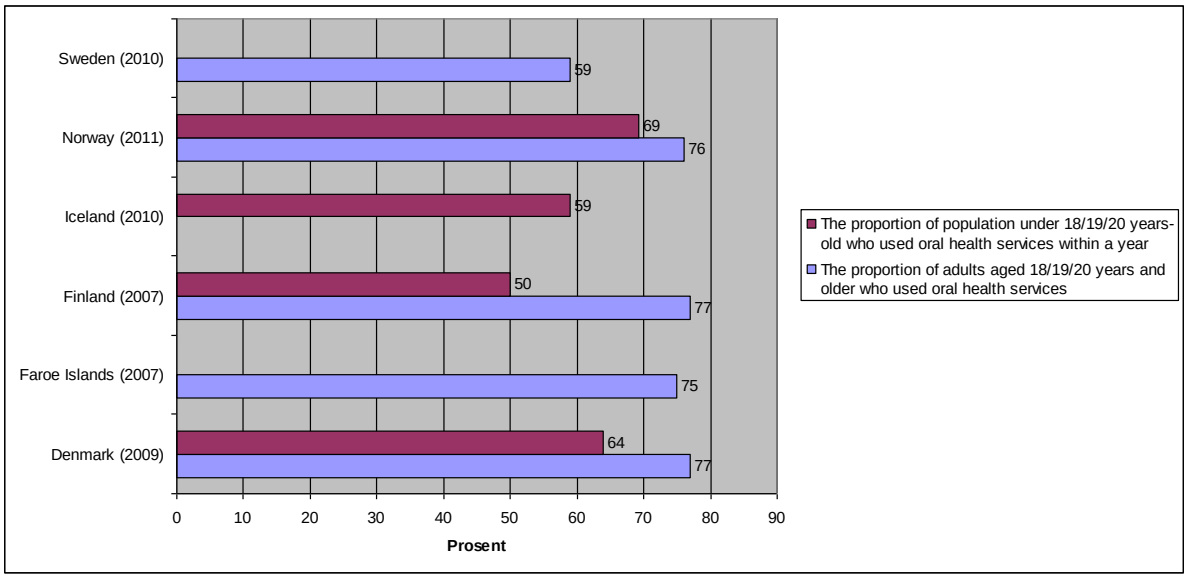
Comparing figures from System of Health Account and the self-reported figures from each country are showing much of the same tendencies. Norway and Sweden seem to spend the most money on out-patient dental care per capita, while Finland seems to be spending the least. The public spending for oral healthcare has not decreased in Icelandic kronur (ISK) but because of the falling rate of the Icelandic kronur, due to the financial crisis, it may look as the public spending has decreased since 2008.

2.3.2 Process indicators

- the percentage of the population receiving oral health care within the past year
- the frequency of tooth brushing (percentage of the population brushing more than once daily)
- the annual mean consumption of sugar-containing beverages per person

2.3.2.1 The percentage of the population receiving oral health care within the past year

Figure 5: The proportion of population under 18/19/20 years-old and the proportion of adults aged 18/19/20 years and older separately who used oral health services within a year.



Findings: Four countries (Denmark, Finland, Iceland and Norway) are able to report the proportion of population under 18/19/20 year-old who used oral health services within a year. Finland (2010) had the lowest proportion with 50 percent and Finland (2007) and Norway (2011) had the highest with 69 percent.

For the adult populations the data was available from five countries (Sweden, Norway, Finland, Faroe Islands and Denmark). Sweden (2010) had the lowest proportion with 59% while Finland and Denmark had the highest proportion with 77%. Sweden has had an increased proportion compared to figures in 2008 (56%).

2.3.2.2 The frequency of tooth brushing (percentage of the population brushing more than once daily)

This indicator is from a WHO study called “Health behaviour in school-aged children (HBSC). It is conducted every four years. The following tables show the results from the HBSC surveys in 2005/2006 and 2009/2010 on the percentage of school-aged children (11-, 13- and 15-year-olds) brushing their teeth more than once daily. For more information about the last study in 2009/2010, see the report from WHO: http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf
The Faroe Islands data is obtained from a self-administrative questionnaire study sent to schools in October 2009 (approximately to 50 % of the children).

For further information about the indicator, see annex 7.

Table 2: Daily tooth brushing (more than once a day) 11-year-old girls and boys. Percentage.[1]

	Finland		Sweden		Denmark		The Faroe Islands		Iceland		Norway	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
2005/2006	55	37	86	81	80	76			73	55	81	76
2009/2010	61	49	87	84	77	73	92	45	74	62	79	73

Findings: Table 2 shows daily tooth brushing (more than once a day) among 11-year-old boys and girls in 2005/2006 and 2009/2010. The figure shows that among 11 year olds, a higher proportion of girls brush their teeth more than once a day than boys. This seems to be a common trend in Nordic countries.

In 2009/2010 the highest proportion of this among girls was in Faroe Islands where it was 92%, while it was lowest in Finland, 61%. Among boys, highest percentage was in Sweden 84%, and The Faroe Islands registered the lowest, 45%.

The table also shows an increased proportion of 11-year old boys and girls who brush their teeth more than once a day between 2005/2006 and 2009/2010 in Finland, Sweden and Iceland, while it shows a decrease in Denmark and Norway.

[1] http://www.hbsc.org/

Figure 6: 11-year-old, girls and boys 2009/2010. Daily tooth brushing (more than once a day). Percentage.

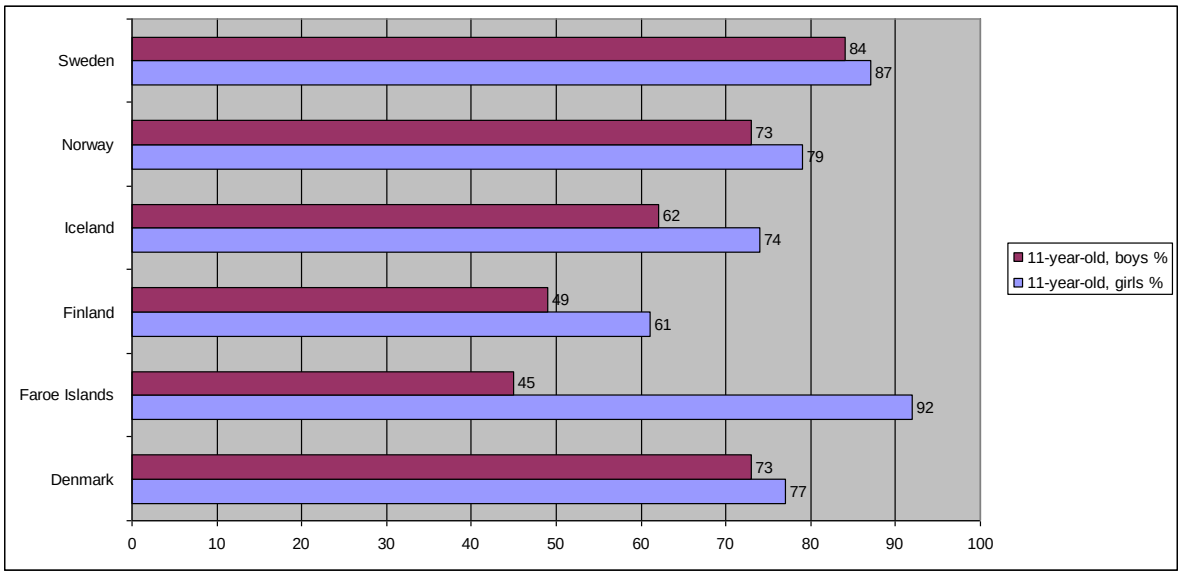


Table 3: Daily tooth brushing (more than once a day) 13-year-old girls and boys. Percentage.

	Finland		Sweden		Denmark		The Faroe Islands		Iceland		Norway	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
2005/2006	53	35	85	79	82	73			69	55	80	71
2009/2010	64	47	88	80	77	71	95	83	78	61	78	72

Findings: Table 3 shows daily tooth brushing (more than once a day) among 13-year-old boys and girls in 2005/2006 and 2009/2010. Figure 6 shows that the proportion of girls in that age group who brush their teeth more than once a day is greater than that of the boys who do so. This seems to be a common trend in Nordic countries.

In 2009/2010 the highest proportion of girls who brushed their teeth more than once a day was in Faroe Islands, 93%, while it was lowest in Finland, 64%. As for the boys in the same age group, the highest percentage was in Faroe Islands, 83% and it was lowest in Finland, 47%.

The table also shows that except in Denmark (among boys) and Norway, there is an increase in the proportion of 13-year-old boys and girls who brush their teeth more than once a day during the periods 2005/2006 and 2009/2010.

Table 4: Daily tooth brushing (more than once a day) 15-year-old girls and boys. Percentage.

	Finland		Sweden		Denmark		The Faroe Islands		Iceland		Norway	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
2005/2006	61	39	87	76	82	72			74	54	80	73
2009/2010	70	43	86	71	84	73	97	92	79	56	79	66

Findings: Table 4 shows daily tooth brushing (more than once a day) among 15-year-old boys and girls in 2005/2006 and 2009/2010. The figure shows that a higher proportion of girls brush their teeth more than once a day than boys. This seems to be a common trend in Nordic countries.

In 2009/2010 the highest proportion of girls who brushed their teeth more than once a day was in Faroe Islands, 97%, while it was lowest in Finland, 70%. As for the boys in the same age group, it is highest in Faroe Islands, 92%, while it is lowest in Finland, 43%.

The table also shows that in Nordic countries other than in Sweden and Norway, there has been an increase in the proportion of 15-year-old boys and girls who brush their teeth more than once a day during the periods, 2005/2006 and 2009/2010.

Figure 7: 15-year old, girls % 2005/2006 and 2009/2010. Daily tooth brushing (more than once a day). Percentage.

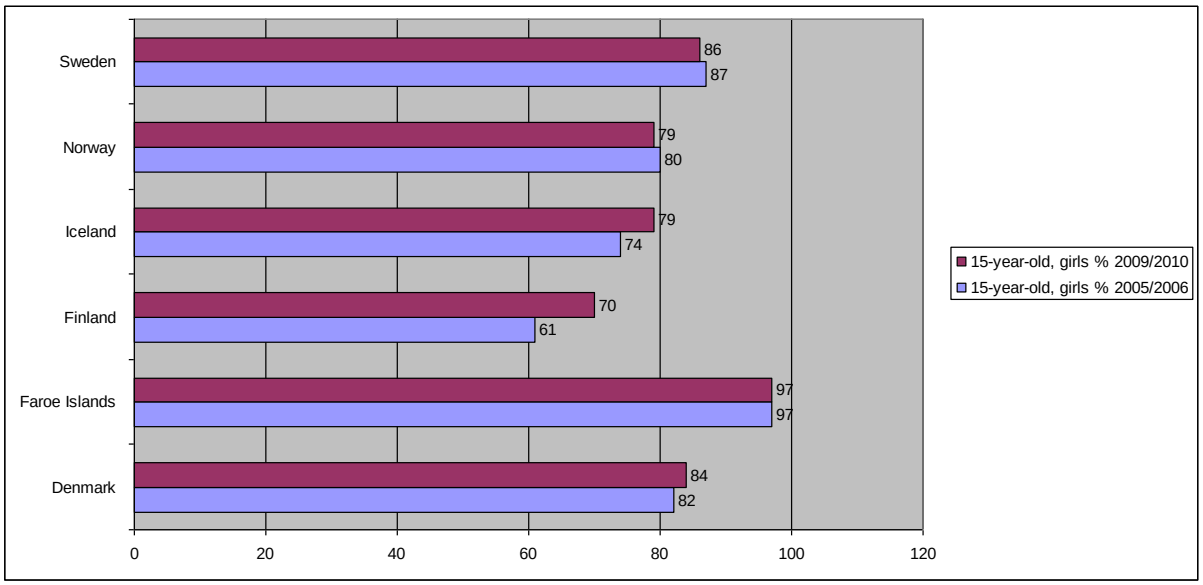
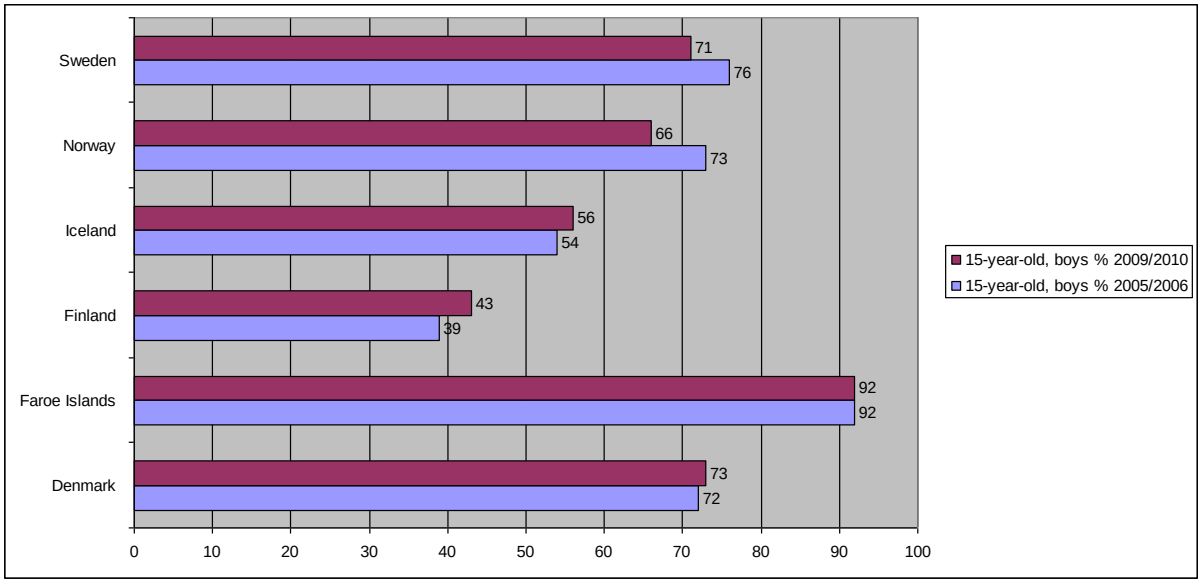


Figure 8: 15-year old, boys % 2005/2006 and 2009/2010. Daily tooth brushing (more than once a day). Percentage.



Findings:

In summary, figure 7 and 8 indicate that for all age groups, a greater percentage of girls brush their teeth more than once a day compared with the boys. The proportion of girls who do so seems to increase with the age of the group. However, this trend has not been observed among the boys.

The figures show that except in Norway, there has been an increase in the proportion of boys and girls who brushes their teeth in 2009/2010 than in 2005/2006. In Norway, their proportion has decreased during both periods in the three age groups.

2.3.2.3 The annual mean consumption of sugar-containing beverages per person

This indicator is from a WHO study called “Health behaviour in school-aged children (HBSC). It is conducted every four years. The following tables show the results from the HBSC surveys in 2005/2006 and 2009/2010 on the percentage of school-aged children (11-, 13- and 15-year-olds) who drink soft drinks daily. The indicator show the consumption of sugar-sweetened beverages, including soft drinks. For more information about the last study in 2009/2010, see the report from WHO: http://www.euro.who.int/__data/assets/pdf_file/0006/167424/E96444_part2_4.pdf

The data from Faroe Islands are obtained from a self-administrative questionnaire study sent to schools in October 2009 (approximately to 50 % of the children).

For further information about the indicator, see annex 8.

Table 5: 11-year-olds who drink sugared soft drinks daily. Percentage.[2][3][4]

	Finland		Sweden		Denmark		The Faroe Islands		Iceland		Norway	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
2005/2006	2	5	3	4	5	6			6	9	6	9
2009/2010	2	5	2	5	4	5	4	29	4	6	5	8

Findings: Table 5 shows the percentage of 11-year olds who drink sugared soft drinks daily in 2005/2006 and 2009/2010. The table shows that a higher proportion of boys do so. This seems to be a trend common to Nordic countries.

In the period 2009/2010, minor differences were noted among Nordic countries with respect to the proportion of 11-year old girls who drink sugared soft drink daily. It is highest in Norway, 5%, while it is lowest in Finland and Sweden, 2%. Among boys, it is highest in Faroe Islands 29%, and it is lowest in Finland, Sweden and Denmark, 5%.

The table does not show a sufficient variation among the figures for 2005/2006 and 2009/2010, that may indicate a trend common to Nordic countries.

[2] http://www.hbsc.org/
[3] http://www.euro.who.int/__data/assets/pdf_file/0005/53852/E91416.pdf
[4] http://www.euro.who.int/__data/assets/pdf_file/0003/163857/Social-determinants-of-health-and-well-being-among-young-people.pdf

Table 6: 13-year-olds who drink sugared soft drinks daily. Percentage.[5]

	Finland		Sweden		Denmark		The Faroe Islands		Iceland		Norway	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
2005/2006	4	7	5	8	5	13			10	14	11	14
2009/2010	2	7	5	8	6	8	9	15	6	12	8	10

Findings: Table 6 shows the percentage of 13-year olds who drink sugared soft drinks daily during the periods 2005/2006 and 2009/2010. In Nordic countries, the percentage of boys who do so, is greater than that of girls.

In 2009/2010, Nordic countries displayed differences in consumption of sugared soft drinks with respect to the sex of the age group. Highest proportion of 13-year old girls who drink sugared soft drink daily, were found to be in Faroe Islands (9%) and Norway (8%), while it was lowest in Finland, 2%. Among boys, it was again highest in Faroe Islands, 15%, and lowest in Finland, 7%.

The table also shows certain changes in consumption of sugared soft drinks in some Nordic countries between the periods, 2005/2006 and 2009/2010. In Denmark, their consumption decreased among boys from 13% to 8%. In other Nordic countries, only minor changes have taken place in the consumption of sugared soft drinks by the 13-year olds.

Table 7: 15-year-olds who drink sugared soft drinks daily. Percentage.

	Finland		Sweden		Denmark		The Faroe Islands		Iceland		Norway	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
2005/2006	4	9	6	13	9	19			13	19	14	21
2009/2010	3	7	6	12	6	16	14	35	6	15	11	18

Findings: Table 7 shows percentage of 15-year olds who drink sugared soft drinks daily in the periods 2005/2006 and 2009/2010. In Nordic countries, the proportion of boys who do so is higher than that of girls.

During the period between 2009 and 2010, some differences in daily consume of sugared soft drinks among the 15-year olds was seen in Nordic countries. Among girls, it is highest in Faroe Islands (14%) and Norway (11%), while it is lowest in Finland (3%). Among boys, it is highest in Faroe Islands (35%), and it is lowest in Finland (7%).

The table also shows that between the two periods 2005-2006 and 2009-2010, in all Nordic countries, there has been a decrease in the proportion of the 15-year old daily consumers of soft drinks. In Iceland, this decrease among girls was from 13% to 6%.

[5] http://www.hbsc.org/

Findings:
To sum up, the figures and tables indicate that between the two periods 2005-2006 and 2009-2010, proportion of those who consume sugared soft drinks daily has decreased in the age groups surveyed in Nordic countries.

Even though there are significant variations, during the same period, the proportion of children who consume sugared soft drinks daily, seems to increase from ages 11 to 15. This increase is higher among boys. The proportion of boys who consume sugared soft drinks daily is higher than that of girls in all surveyed age groups.

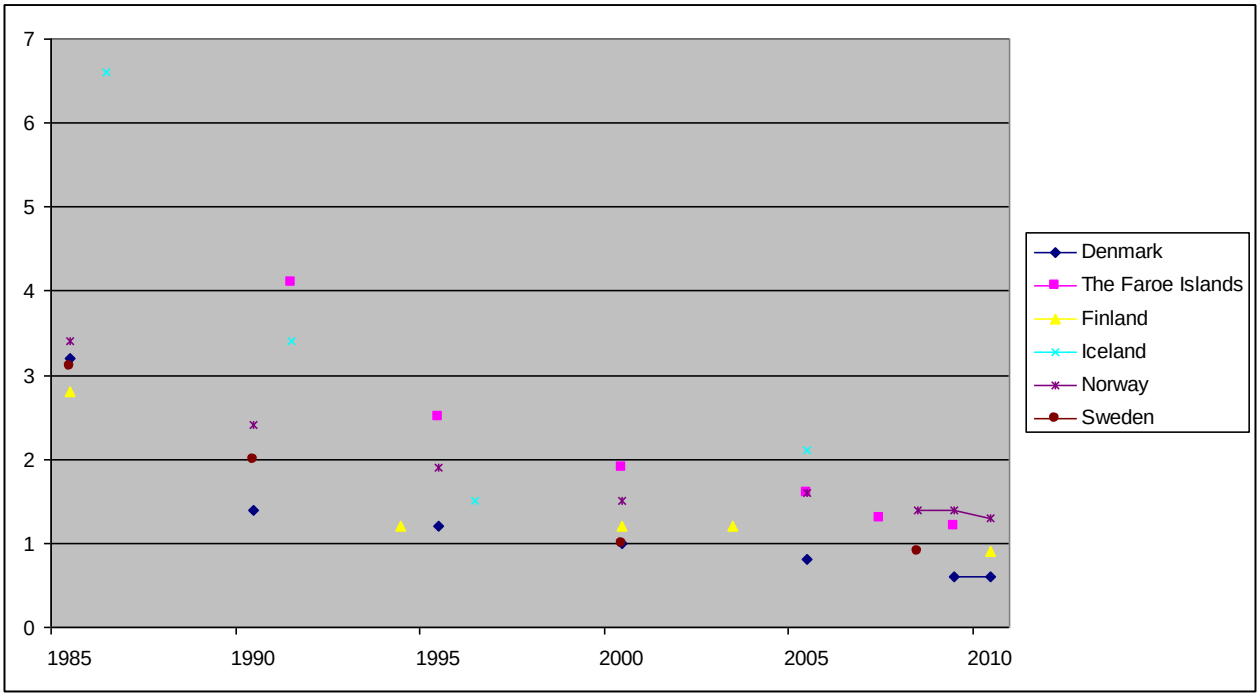
2.3.3 Outcome indicators

- the percentage of children and adolescents examined who had no caries
- the median number of decayed, missing and filled teeth (DMFT) among the children and adolescents examined
- the significant caries index (mean DMFT score for the one third of the population with the highest DMFT scores)
- the percentage of the population 65–74 years old who have no teeth the percentage of the population 65–74 years old who have at least 20 remaining teeth.

No obvious decay experience: (D3MFT=0/d3mft=0). *No obvious decay:* No decay in dentine.

2.3.3.1 The percentage of children and adolescents examined who had no caries

Figure 9: Average number of decayed, missing or filled teeth, 12-year-old children in Nordic countries.1985 – 2010.

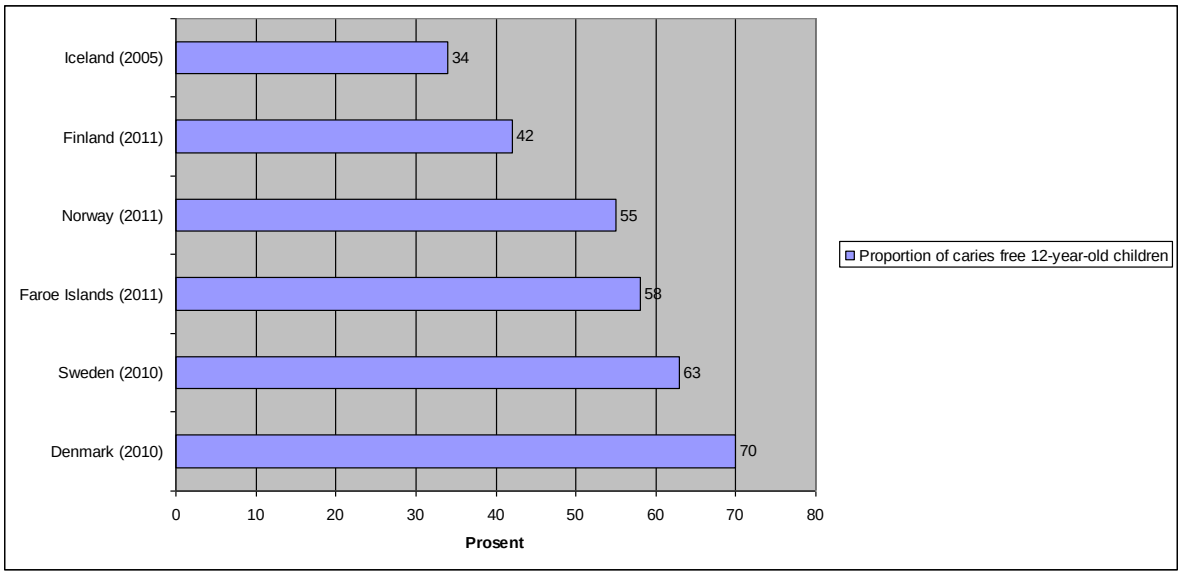


Findings: Figure 9 shows a substantial fall in average DMFT in all Nordic countries between 1985 and 2010. The mean national D3MFT scores for 12-year olds were low in all Nordic countries in the latest reporting year. There are, however, notable differences between the Nordic countries; the lowest D3MFT (0.6) was in Denmark (2009) and highest in Iceland (2.1 in 2005). World Health Organization has set a target for Europe of not exceeding 1.5 D3MFT by the year 2020 for 12-year olds.

During the past two years, a positive decrease in average DMFT for 12-year olds has become evident in those Nordic countries who have updated their data.

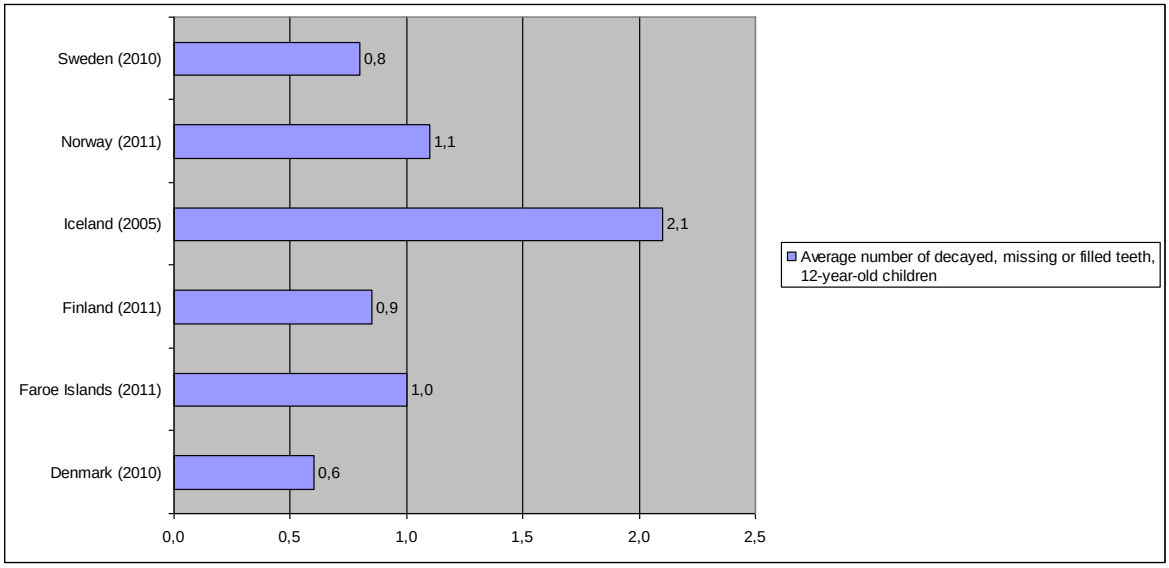
2.3.3.2 The median number of decayed, missing and filled teeth (DMFT) among the children and adolescents examine

Figure 10: Proportion of 12-year-old children with no obvious decay (no dentine caries). Percentage.



Findings: Over the past four decades, oral health of the people in Nordic countries has shown a comparable improvement. The percentage of children with no obvious decay (previously known as caries-free children) has increased in all Nordic countries. Among 12-year olds, it varied from 34% in Iceland (2005) to 70% in Denmark (2010). (Figure 10).
Background information also show that the proportion of 12-year-olds with no obvious decay has increased in all Nordic countries (with updated figures) compared to two years ago.

Figure 11: Average number of decayed, missing or filled teeth, 12-year-old children.

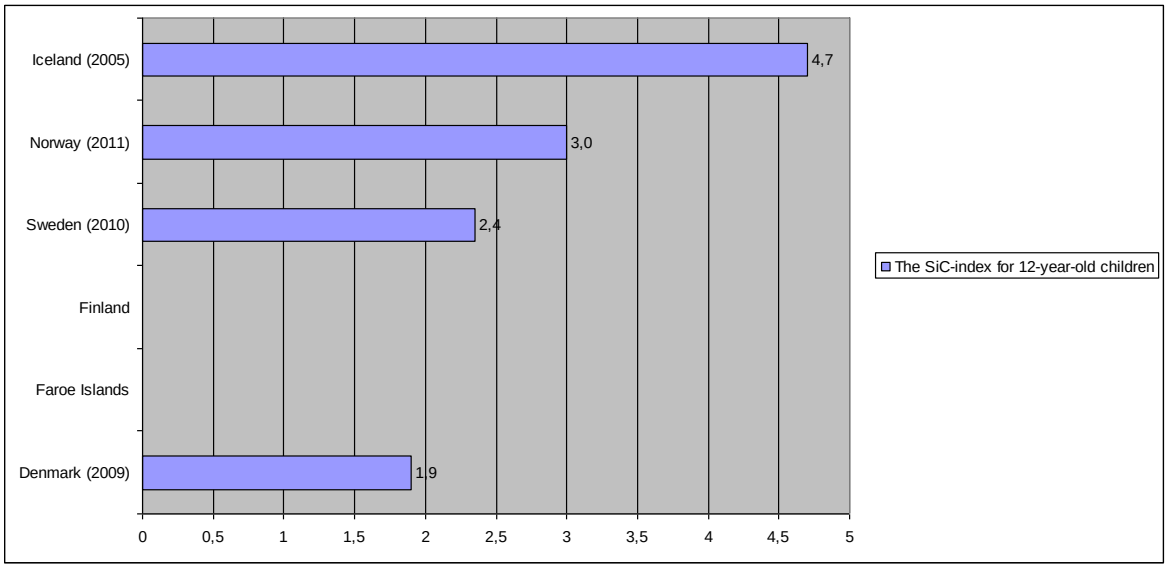


Findings: Figure 11 shows the average number of decayed, missing or filled teeth among 12-year olds. The mean national D3MFT scores for 12-year olds were low in all Nordic countries. There are, however, notable differences between the Nordic countries; the lowest D3MFT (0.6) was in Denmark (2010) and highest in Iceland (2.1 in 2005). World Health Organization has set a target for Europe of not exceeding 1.5 D3MFT by the year 2020 for 12-year olds (WHO, 1999).

Updated figures also show a decrease in the average DMFT in all Nordic countries compared to that two years ago.

2.3.3.3 The significant caries index – SiC-index (mean D3MFT score for the one third of the population with the highest DMFT score)

Figure 12: The SiC-index for 12-year-old children (mean DMFT for the third of the 12-year-olds with highest DMFT score).

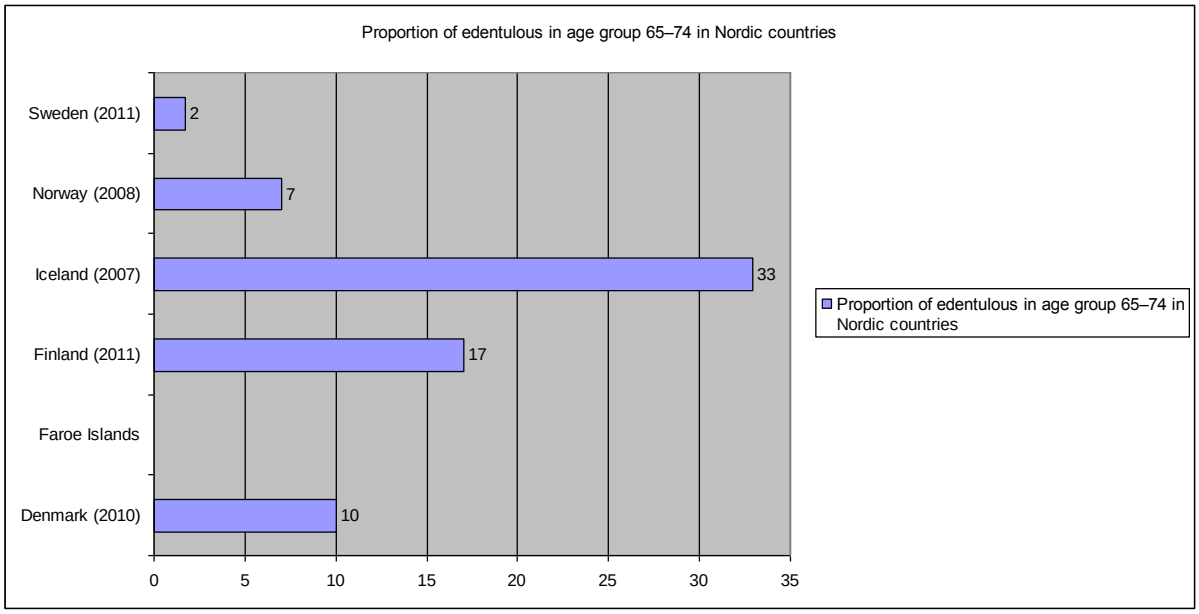


Findings: Figure 12 shows SiC index for 12-year olds in Nordic countries. The SiC-index in Iceland was 4.7 (2005), in Denmark 1.9 (2009), in Norway 3 (2011) and in Sweden 2.4 (2010). During the last two years, mean value of this index decreased in Norway and Sweden.

For more information about the indicator see annex 9.

2.3.3.4 The percentage of the population 65–74 years old who have no teeth

Figure 13: Proportion of edentulous (no teeth) in age group 65–74 in Nordic countries



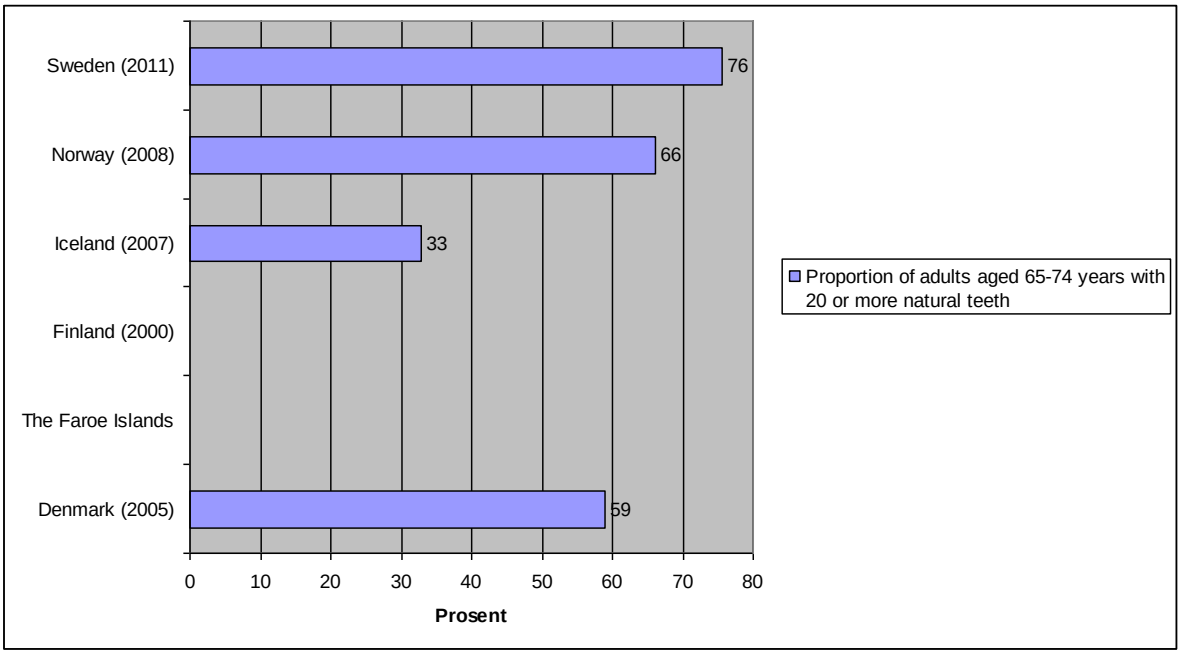
Findings: Figure 13 shows that the percentage of people from 65 to 74 years old with no teeth varied from 2 % in Sweden (2011) to 33% in Iceland (2007). Surveys show that the number of people with no teeth is decreasing rapidly in all Nordic countries.

As there has not been a regular updating of oral health statistics in Nordic countries, it is difficult to identify the current trends in oral health in individual countries or the region. Moreover, some countries have not included the people living in institutions for the aged and disabled in their statistics.

For more information about this indicator see annex 10.

2.3.3.5 The percentage of the population 65–74 years old who have at least 20 remaining teeth

Figure 14: Proportion of adults aged 65-74 years with 20 or more natural teeth



Findings: Figure 14 shows the distribution of 65 to 74-year olds having 20 or more natural teeth. While this was 76% in Sweden in 2011, it was 33% in Iceland in 2005.

Different years of reporting the data make it challenging to compare across the Nordic countries. It is important to emphasize that the figures for some countries don't include people living in institutions for aged and disabled.

For more information about this indicator see annex 11.

2.4 Potential quality indicators

The working group has tried to extend the number of quality indicators beyond the original 12 in use. In 2010, the following was settled as potential quality indicators:

- The percentage of the population receiving oral health care regularly
- Self-rated oral health
- Self-rated chewing ability

These are described in the comprehensive report published in 2010 (http://www.thl.fi/thl-client/pdfs/a389b3ed-a262-44c5-bad0-b9d3eecdf089).

In 2012, the working group has considered several potential indicators related to following areas:

- Erosion
- Antibiotics
- Self-rated reasons for unmet needs for dental examination

The next sections describe the potential quality indicators working group proposed in 2010.

2.4.1 Erosion

There is no consensus in the academia about the field dental erosion and what scale that can be used to register dental erosion on patients. A first step towards an indicator on dental erosion can be to register in a patient journal whether or not the patient has erosion. Another option would be to use the need for treatment as an indicator, for example register if a patient needs to have innovative treatment for erosion.

The working group worked out different possibilities for indicators, but these needs to be further developed.

2.4.2 Antibiotics prescribed by dentists

The consumption of pharmaceuticals is increasing. A growing demand for drugs to treat ageing-related diseases is one of the factors contributing to this rise. Other factors are also indicated, such as physicians' prescription habits, also play a role[6].The working group finds it interesting to gain knowledge about methods in treatment in the oral health care services. Measuring the volume of antibiotics prescribed by dentists can give information about this.

The working group has developed a potential indicator for antibiotic use, measured in number of Defined Daily Dose (DDD). Consumption of drugs is measured through DDD, as recommended by the WHO Collaborating Center for Drug Statistic. WHO definition of DDD is:

"The DDD is the assumed average maintenance dose per day for a drug used for its main indication in adults"[7].

[6] http://www.oecd-ilibrary.org/sites/health_glance-2011-en/04/11/index.html?contentType=&itemId=/content/chapter/health_glance-2011-39-en&containerItemId=/content/serial/19991312&accessItemIds=/content/book/health_glance-2011-en&mimeType=text/html

[7] The WHO Collaborating Centre for Drug Statistics Methodology in Oslo, Norway (WHO CC, Oslo),http://www.whocc.no/ddd/definition_and_general_considera/

A DDD will only be assigned for drugs that already have an ATC code.
Denmark, Iceland, Sweden, Finland and Norway can get data on DDD. Finland gets data from the health insurance companies.

Name: Usage of antibiotics in oral health care

Technical description: Numerator: The total number of DDD as revealed by retrieved prescriptions.
Denominator: Population of the country

Quality indicator: Annual DDD per capita, or per 1000 inhabitants.

The relationship between the indicator and quality:
- A high value of the indicator reflects a high incidence of oral infections associated with dental or other oral deceases, which may be due to inadequacies in the available oral health care.
- Those inadequacies may reflect shortcomings in current dental practise, or changes in it with respect to the prescription of antibiotics.

DDDs figures only represent a rough estimate of antibiotic use, which may differ considerably from its actual usage.

Iceland, Sweden, Finland and Norway can get information about prescriptions. Iceland, Sweden and Norway get data from national registers. Finland gets data from health insurance companies. Denmark can not get information about prescriptions.

The following tables show the systemic use antibiotics as prescribed by dentists and dental specialists (ATC code J01) from 2005 to 2011[8].

Table 8: Proportion of the population per thousand that has retrieved prescription of antibiotics for systemic use (ATC code J01), prescribed by dentists. 2005-2011.

	Prevalence per 1000 inhabitants			
	Finland	Sweden	Iceland	Norway
2005		30,3	34,5	19,6
2006		32,0	36,5	21,1
2007	46,2	32,9	37,4	22,7
2008	47,7	31,8	37,7	23,7
2009	47,5	29,7	34,9	24,2
2010	48,8	27,8	35,1	25,4
2011	48,7	27,8	35	25,6

[8] Data from:
Norway: A national register for prescriptions: “Reseptregisteret”, in 2012.
Sweden: A national register for prescriptions: ”Läkemedelsregistret”, The National Board of Health and Welfare.
Finland: Health insurance companies.
Iceland: Directorate of Health, national data base of prescription drugs. Iceland.
Faroe Islands: Not able to report.
Denmark: Not able to report.

Findings: Table 8 shows an increased proportion of the population that has retrieved prescription of antibiotics by dentists in period 2005 to 2011 across all Nordic countries. Finland has got the highest proportion in 2011 with 53.2 per thousand, while Norway has got the lowest with 25.6 per thousand.

Table 9: Number of Defined Daily Dose (DDD) per thousand inhabitants who have retrieved prescriptions of antibiotics for systemic use (ATC code J01), prescribed by dentists, 2005-2011.[9]

	Defined Daily Dose (DDD)		
	Sweden	Iceland	Norway
2005	398	437	220
2006	422	475	240
2007	429	491	261
2008	408	488	274
2009	380	450	281
2010	356	451	296
2011	357	453	297

Findings: Table 9 shows an increased amount of Defined Daily Doses (DDD) among inhabitants in Iceland and Norway in the period 2005-2011. In Sweden, there has been a decrease in the same period.
Iceland has got the highest number of Defined Daily Doses per thousand inhabitants in 2011 with 453 DDD per thousand inhabitants, while Norway has got the lowest with 297.

[9] Only Sweden, Iceland and Norway was able to report data. Sources are the same as for table 8, see foot note number 8.

2.4.3 Self-rated reasons for unmet needs for dental examination

The EU-SILC indicator may be used to ascertain the quality of care with respect to people's unmet needs for dental examination. It is called, "People with unmet needs for dental examination by sex, age, reason and income quintile (%)".

The working group has considered this indicator in 2012.
More information about the EU-SILC indicator can be found through the link: http://epp.eurostat.ec.europa.eu/

Unmet needs for dental examination in the Nordic countries – EU-SILC
The need to go see the dentist may have multiple reasons. The need may arise, for example as a result of specific dental problems such as toothache or dental diseases, or it may come from a more general desire to prevent future dental problems. Although these two cases of needs are different when it comes to how acute they are assessed, the need for a dental visit could be as great (Ekornrud and Jensen 2010).

EU Survey on Income and Living Conditions (EU-SILC)

EU Survey on Income and Living Conditions is an annual European sample survey on income and living conditions. The study is coordinated by the EU's statistical office Eurostat. The Survey is, among other things, mapping finance, labor and health most recent calendar years. Denmark, Finland, Iceland, Norway and Sweden are all conducting the survey. For more information about EU-SILC, see Andersen et al 2006 and http://epp.eurostat.ec.europa.eu/.

EU Survey on Income and Living Conditions is every year mapping people's unmet need for dental examination within the last 12 months and the reasons why they didn't go to the dentist.

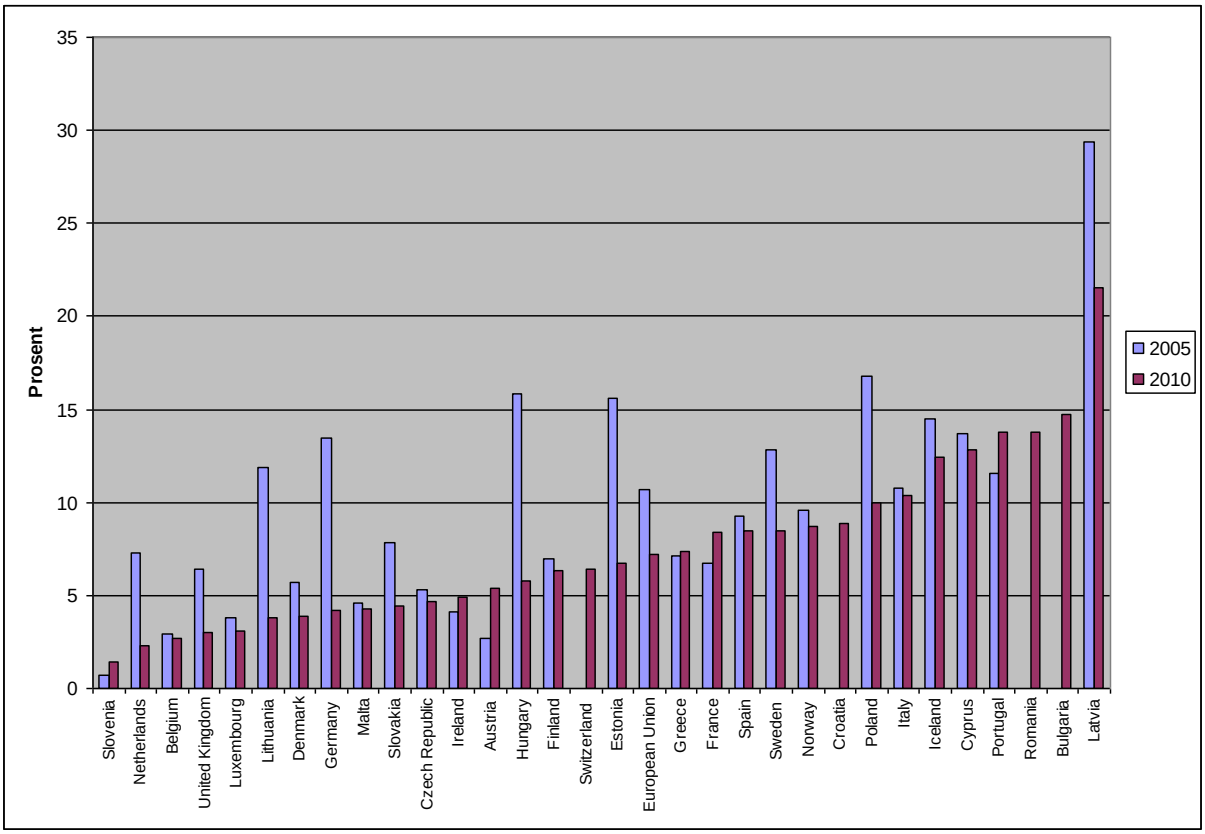
EU-SILC shows that unmet needs for dental examination varies among Nordic countries, and it also varies according to age, sex, income, education and activity status. It also indicates that from 2005 to 2010, there has been a reduction in the amount of unmet needs in the population. But in some Nordic countries, a large percentage of the adult population have reported having unmet needs for dental examination.

Having access to dental care when you need it is important. The indicator from EU-SILC "unmet needs for dental examination" can help the Nordic countries monitoring development and trends on this area. It can also help countries determine the main characteristics among people with unmet needs have. For instance it would be interesting to see if people with unmet needs for dental examination vary after background categories such as income level, education level or activity status.

It is also important to find out what are the main reasons to why people who need dental examination still fail to go. Is it because it's too expensive, didn't have any time, waiting list, fear of the dentist? See figure 15. The results from the EU-SILC survey will hopefully help us to get answers to many of these questions.

Analysis of Self-rated reasons for unmet needs for dental examination in EU and the Nordic countries

Figure 15: Proportion of adults with unmet needs for dental services in different European countries for the years 2005 and 2010. Percentage.



Source: EU-SILC, Eurostat

Findings: The figure shows that Latvia has got the highest proportion of the adult population that reports an unmet need for dental services in 2010 with 21.5 percent, while Slovenia has the lowest with 1.4 percent. The average for the 27 EU member countries is 7.2 percent in 2010. The part of the population who reports an unmet need decreases in almost every European country between 2005 and 2010. For those countries that do not experience a decrease, the increase is rather small.

Table 10: Unmet needs to declare in Nordic countries and EU in 2005 and 2010, and percent change between 2010 and 2005.

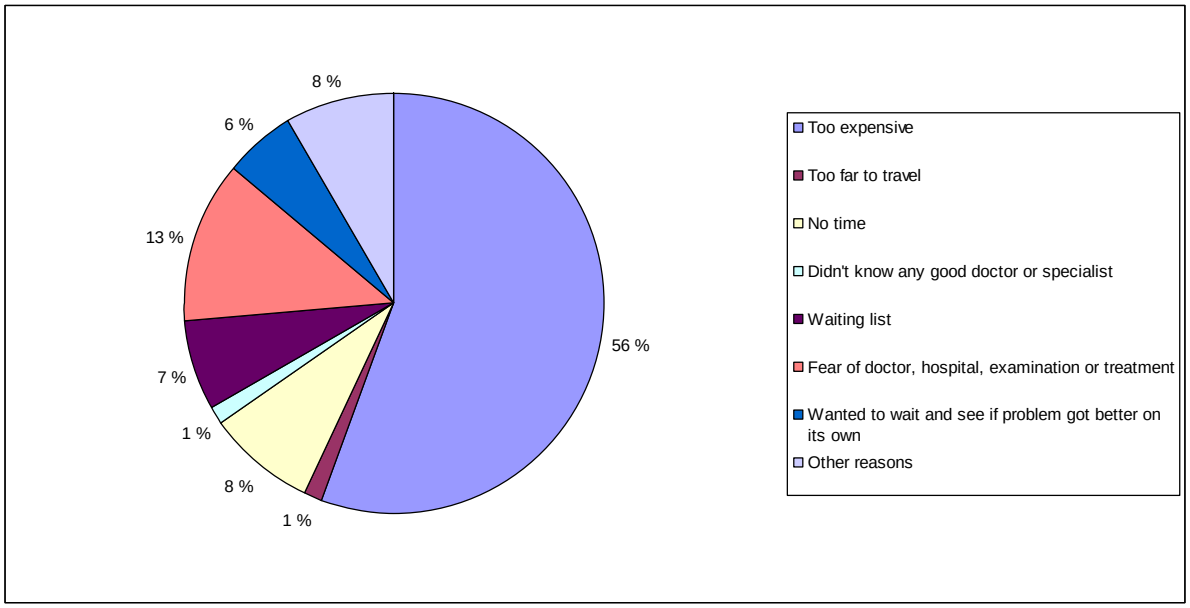
	2005	2010	Percent change 2010-2005
Denmark	6	4	-32
Finland	7	6	-10
Sweden	13	9	-34
Iceland	15	12	-14
Norway	10	9	-9
European Union	11	7	-33

Source: EU-SILC, Eurostat

Among the Nordic countries, Iceland scored the highest(12.3%), while Denmark scored the lowest (3.9%). During the period 2005-2010, there was a general lowering of EU-SILC score in Nordic countries with Sweden leading with a reduction of 34%.

Main reasons why people report unmet needs in EU and the Nordic countries

Figure 16: Main Reasons why people aged 18 years and older haven't visited the dentist during the past twelve months despite a demand in EU (an average for all the 27 EU countries). 2010. Percentage.



Source: EU-SILC, Eurostat

Figure 16 show that economy is the most important reason for unmet needs for dental examination. In EU, 56% of the participants cite high cost as their reason for having such needs. 13% of those attribute "Fear of doctor, hospital, examination or treatment" as their reason, and 8% claim to have no time for the purpose, while 7% are put off by waiting lists.

Table 11: Main Reasons why people have not been to the dentist during the last 12 months despite need in the EU total and Scandinavia. 2010. Percentage.

	EU	Norway	Denmark	Finland	Sweden	Iceland
Too expensive	56	57	63	6	51	77
Too far to travel	1	2	0	0	1	1
No time	8	2	10	2	11	2
Didn't know any good doctor or specialist	1	1	3	0	4	0
Waiting list	7	9	3	77	2	2
Fear of doctor, hospital, examination or treatment	13	11	8	3	11	5
Wanted to wait and see if problem got better on its own	6	3	3	3	13	1
Other reasons	8	13	13	9	7	12

Source: EU-SILC, Eurostat

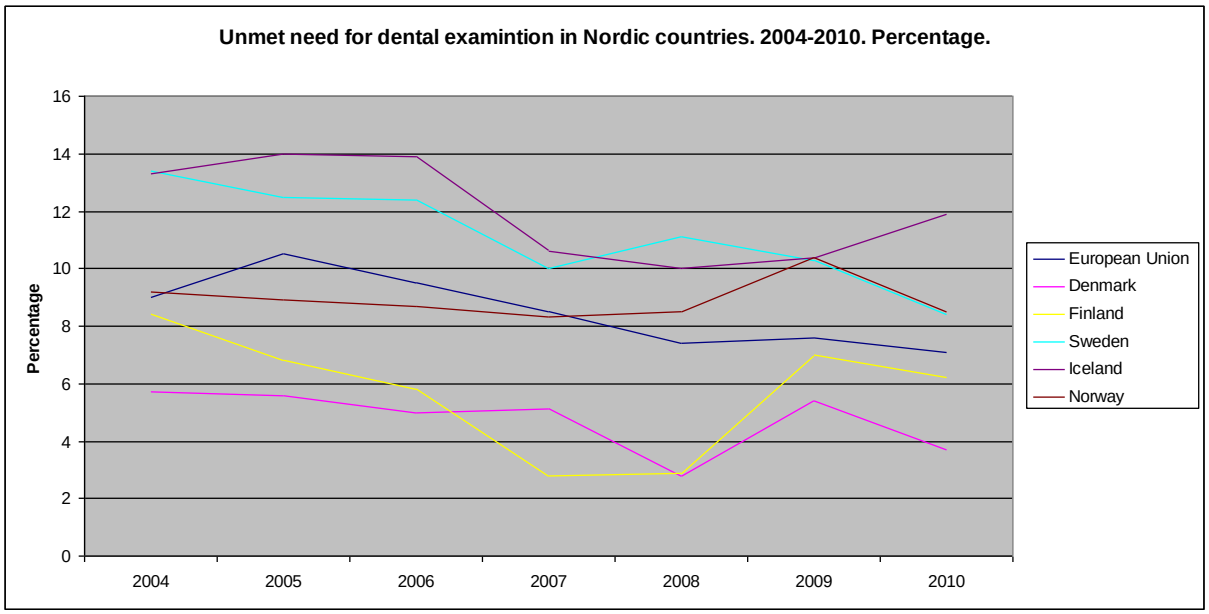
In 2010, 77% of those who reported unmet need for dental examination in Iceland explained it due to high cost, while it was 6% in Finland. During the period from 2005 to 2010, high cost has become the main reason for unmet need for dental examination in most of the EU including Denmark, and in Iceland, while it has become less important in Norway, Sweden and Finland.

Finland is the only Nordic country where people report waiting lists as the main reason for unmet need for dental examination with 77 percent, while only 6% attributes it to high cost. As for the other Nordic countries 2% in Iceland and Sweden, and 9% in Norway consider waiting lists as the reason for unmet need for dental examination.

Waiting lists could become a major reason for unmet needs for dental examination either due to structural inadequacies in dental health care, or to their functional counterpart.

Unmet needs in the Nordic countries – development over time

Figure 17: Persons who have not gone to the dentist during the past twelve months despite a need in the Nordic countries in the period 2005-2010.



Source: EU-SILC, Eurostat

Figure 17 shows that between 2004 and 2010, there has been a considerable annual variation in Nordic countries as to the reported reason for unmet needs for dental examination.

In 2004, Iceland scored highest with respect to unmet needs for dental examination where it was 12.4%. In Norway, it was 8.7% more or less the same as Sweden, while it was lowest in Denmark (3.9%).

In total during this period, the percentage of reported unmet needs for dental examination has decreased in Nordic countries. This was greatest in Sweden (34%) and Denmark (32%), and it was smallest in Norway (9%).

Differences between the Nordic countries in unmet needs by activity status

Activity status in EU-SILC – some definitions

The results of the EU-SILC survey about unmet needs for dental services is partly distributed and presented by population's activity status. Definitions of employment and unemployment are similar to Eurostat's common definitions.

The following section is prevailing in the EU-SILC:

Population - includes the whole population, in this case, everyone involved in the survey.

Employed persons - includes all persons aged 15-74 years who performed work with an income that lasted at least one hour in a given reference week. It also includes people who have such a work, but who were temporarily absent because of illness, vacation, leave of absence or salary: Persons who are in the initial military or civil service, is also considered employed.

People in employment with pay from an employer are also classified as employed, as opposed to people in for example job training, which only gets paid an allowance.

Unemployed persons - includes all persons without income related work that tried to acquire such work during the last four weeks, and who could have taken such a work during the reference week or the two subsequent weeks.

Retired persons - includes all persons who have retired with pension, or receive other forms of social support such as disability pensions, social assistance, rehabilitation benefits, etc.

Other inactive persons - includes all persons not included in any of the other categories.

For more about the activity status of the EU-SILC:

http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/hlth_care_silc_esms.htm

Table 12: People who have not been to the dentist last 12 months despite a need by activity status.2010. Percentage.

	Employed persons	Unemployed persons	Retired persons	Other inactive persons
GEO/TIME	2010	2010	2010	2010
European Union	7	14	6	7
Denmark	3	18	2	6
Finland	6	12	4	7
Sweden	9	17	4	13
Iceland	11	27	3	15
Norway	8	22	4	14

Source: EU-SILC, Eurostat

Table 12 shows that the percentage of reported unmet needs for dental examination is highest among the unemployed in Nordic countries. It is highest in Iceland (27%) and lowest in Finland (12%). However, during the period from 2005 to 2010, this percentage has decreased in the Nordic countries.

The unemployed people in the Nordic countries, except Finland, report high cost as the main reason for their unmet needs for dental examination.
Finland is an exception where the Finnish unemployed and employed both report waiting list as the main reason.

There are no clear differences between unmet needs for men and women for dental examination in Nordic countries. However, there are significant differences between the sexes who are unemployed. In Iceland, Sweden and Finland unemployed women report a higher percentage of unmet needs than unemployed men.

Differences between the Nordic countries in unmet needs by age

Table 13 shows people who have not been to the dentist in the past twelve months despite reported needs for different age groups.

Table 13: People who have not gone to the dentist during the last twelve months despite a need by age.Both sexes.EU in total and the Nordic countries. 2010. Percent.

AGE	Total	From 16 to 24 years	From 25 to 34 years	From 35 to 44 years	From 45 to 54 years	From 55 to 64 years	From 65 to 74 years	From 75 to 84 years	85 years or over
GEO/TIME	2010	2010	2010	2010	2010	2010	2010	2010	2010
European Union	7	5	8	9	8	7	6	6	5
Denmark	4	3	6	4	6	3	2	1	4
Finland	6	6	7	8	8	5	5	2	2
Sweden	8	11	12	11	10	5	4	4	6
Iceland	12	13	20	14	11	8	5	3	0
Norway	9	13	14	10	7	5	2	5	9

Source: EU-SILC, Eurostat

Table 13 shows that the unmet needs for dental examination in Nordic countries are highest among the youngest age groups. In the three age groups between 18 and 44 years, (16-24, 25-34, 35-44), Iceland registered the highest percentage and Denmark the lowest.

There is a tendency that unmet needs are reduced with age, until the two oldest age groups where the unmet need starts increasing for some of the countries.

Differences between the Nordic countries in unmet needs by income

Table 14 shows persons 18 years and older, who have not been to the dentist within the last twelve months despite need, by different income quintile.

Income quintile in the EU-SILC survey

The results of the EU-SILC survey unmet needs for dental services is distributed and presented by the household to each individual person's income, the so-called income quintile. If one sort all of the household income in ascending order, and divides into five equal groups (quintile), then the first quintile comprise fifth of the population with the lowest income, while the fifth quintile will comprise the fifth with the highest incomes. When income groups are defined as quintiles, the income limits for each quintile change from year to year, as income distribution and income changes.

Income quintile is computed on the basis of the total equalised disposable income of year (N-1), i.e. total disposable household income divided by the household equalised size using the so-called modified OECD equivalence scale. This scale gives a weight of 1.0 to the first adult, 0.5 to any other household member aged 14 and over and 0.3 to each child below age 14.

For more on income quintile in the EU-SILC:

http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/hlth_care_silc_esms.htm

Table 14: Persons who have not been to the dentist in the last 12 months despite unmet need, by income quintile. Both sexes. 2010. Percentage.

	Total	First quintile of equivalised income	Second quintile of equivalised income	Third quintile of equivalised income	Fourth quintile of equivalised income	Fifth quintile of equivalised income
European Union	7	12	9	7	5	3
Denmark	4	7	5	3	2	2
Finland	6	9	7	5	6	5
Sweden	9	15	9	8	7	4
Iceland	12	20	14	13	9	6
Norway	9	17	11	7	4	5

Source: EU-SILC, Eurostat

Table 14 shows that people with unmet needs for dental examination are unambiguously decreasing with rising income. This applies to EU and all the Nordic countries. Highest proportion of this need in all five quintiles is in Iceland, while it is lowest in Denmark.

The greatest difference in unmet needs between the high and low income groups, are in Iceland and Norway, and it is lowest in Finland. Available data indicate that waiting lists are the main reason for unmet needs in Finland across all income groups.

In Nordic countries, there is no common pattern to the distribution of unmet needs for dental examination either in general or with respect to sex. As for their distribution in different income quintiles with respect to sex, in the first income quintile, men

predominate in Denmark, Finland and Norway, while women do so in Iceland.

Thus, the distribution of those with unmet needs in different income groups according to sex is variable in Nordic countries. However, except in the first income quintile in Denmark, this variation seems to be insignificant within the income groups of each country.

Differences in unmet needs for dental examination between the Nordic countries by educational level

Educational level in EU-SILC – some definitions

The results of the EU-SILC survey unmet needs for dental services is distributed and presented by the each individual's educational level. The attainment levels of individuals are classified according to the 'International Standard Classification of Education' version of 1997 and are grouped:

Educational level 0-2

Level 0: no formal education or below primary education

Level 1: Primary education or first stage of basic education

Level 2: Lower secondary or second stage of basic education

Educational level 3_4

Level 3: Upper secondary education

Level 4: Post-secondary non-tertiary education

Educational level 5_6

Level 5: First stage of tertiary education

Level 6: Second stage of tertiary education

Table 15 shows persons 18 years and older who haven't been to the dentist in the last 12 months, even though they had a need for, distributed by educational level.

Table 15: Persons aged 18 and older who have not been to the dentist in the last 12 months despite a need by educational level. 2010. Percentage.

	All ISCED 1997 levels	Pre-primary, primary and lower secondary education (levels 0-2)	Upper secondary and post-secondary non-tertiary education (levels 3 and 4)	First and second stage of tertiary education (levels 5 and 6)
European Union	7,1	9,3	6,6	4,7
Denmark	3,6	4,2	3,5	2,9
Finland	6,2	4,9	6,5	7,1
Sweden	8,5	9,7	9,1	6,6
Iceland	12,2	13,6	12	10,2
Norway	8,5	11,2	8,5	6,1

Source:EU-SILC, Eurostat

Table 15 shows the relationship between the incidence of unmet needs and the level of education. In the lowest educated group, the national distribution of unmet needs is Iceland (12%), Norway (9%), Denmark (4%) and Finland (5%). Moreover, a direct correlation seems to obtain between the level of education and unmet needs in Finland.

Unmet need for dental examination–summary and conclusion

The proportion of adult population with unmet needs for dental examination varies in Nordic countries. It seems to decrease with the increase in the level of education and income. The exception is in Finland, where high cost appears to be the main reason for unmet needs in Nordic countries, particularly among the unemployed, low income groups and for those with the lowest education.

As for the distribution of unmet needs with respect to age, its proportion is highest among the youngest adults in Nordic countries. This is likely to be due to their low income. There seems to be no significant differences in the distribution of unmet needs according to sex.

During the period from 2005 to 2010, there has been a decrease in the proportion of those with unmet needs for dental examination in Nordic countries. However, their numbers still remain considerable in some countries. This makes it necessary to monitor their proportion with a view to undertaking remedial action.

3 Other work in 2012

3.1 Describing the indicators

In the meeting in May 2012, the participants from the working group agreed on making a master form for the indicators and to describe each indicator according to this form. The aim for this was to make a clear overview of each indicator. The participants in the meeting decided to share the task to write information about each indicator. It was unfortunately not delivered annexes with more information for indicator number 1, 5 or 9. See annex 3-11 for information about the other indicators.

3.2 Developing quality indicators in the OECD Health Care Quality Indicators Project

In several meetings, the Nordic working group discussed the importance of common quality indicators which are needed for oral health care on European level. The working group stated that the quality indicators for oral health care work should be linked with the OECD project for Health Care Quality Indicators (HCQI) work as the OECD only report basic data on oral health. To promote this, the Nordic working group prepared a proposal letter of developing quality indicators on oral health and oral health care to the OECD group HCQI. This OECD group held a meeting 9th of May 2012 where the indicators developed from The Nordic Project of Quality Indicators for Oral Health Care were on the agenda. The conclusion from the meeting was that the OECD subgroup will look closer on the outcome indicators, and will particularly consider the following indicators:

- Proportion of caries free (no dentine caries) in children and adolescents
- Significant caries index (children aged 12)
- Edentulous (without teeth) prevalence in adults aged 65-74
- Functional occlusion prevalence in adults aged 65-74

The OECD Secretariat stated in the HCQI expert group meeting in November 2012 that the project on oral health care quality indicators has been put on hold for the time being. The project will be reconsidered at a later date. According to the secretariat, there were not enough countries prepared to test the dental care data collection.

3.3 Surveys

The last questionnaire surveys on oral health from each country have been selected. These can be used to develop a joint Nordic questionnaire or give ideas to each country when making questions and alternatives for answers for coming surveys. See annex 12.

4 Conclusions and recommendations

This report is a short summary of the work done by the working group for Nordic Quality Indicators for Oral Health Care in 2012. As the working group has previously done extensive work in defining the indicators and ensuring the quality of collected data, it is important that data on the selected indicators is published on a regular basis. This report gives updated information on quality indicators on oral health and oral health care. Nordic health care personnel and health authorities can assess and compare the quality of oral health services in Nordic countries. In 2012, extensive work has also been done in analysing some of the indicators. The working group has also done work on developing several potential quality indicators.
In the future, more quality indicators on oral health are needed, and the working group stated the work should continue. Further work is needed to develop indicators more precisely connected to quality.

Annex 1

Til: The working group for Nordic quality indicators for oral health

Date approved: 24.01.2012

Mandate

From: Department of Community Health Care Services, Norwegian Directorate of Health.

Responsible manager: Maren Mathiesen Wilberg

Mandate for the working group during the work with Nordic quality indicator of oral health during 2012

Background and organization:

The Nordic Project of Quality Indicators for Oral Health Care was started during the Finnish presidency of the Nordic Council of Ministers in October 2007. The project was one of the four health care indicator projects financed by the Nordic Council of Ministers. The project was also financed by the participating countries and by the Ministry of Social Affairs and Health of Finland. The Nordic countries participating in the project were Denmark, the Faroe Islands, Finland, Iceland, Norway and Sweden. The working group´s mandate stated that the project was to prepare a proposal and develop common Nordic Health Care Quality Indicators for Oral Health Care. The work should be linked with OECD and the previous EGOHID project. The working group´s mandate period was set at three years: 2007-2010. The working group settled on 12 indicators for oral health care on which data was available at least in three Nordic countries.

After the project period, the countries were eager to go on with the cooperation. As Finland had the presidency of the Nordic Council of Ministers in 2011, Finland hosted the meetings and was the secretary for the working group.

Members of the working group:

- Lene Vilstrup, Health and Medicines Authority, Denmark
- Andreas Cederlund, The National Board of Health and Welfare, Sweden
- Marianne Appelquist, The National Board of Health and Welfare, Sweden
- Helga Ágústsdóttir, Ministry of Welfare, Iceland
- Anne Nordblad, Ministry of Social Affairs and Health, Finland
- Sigrid Arge, Torshavn municipality, The Faroe Islands.
- Trond Ekornrud, Statistics Norway, Norway
- Maren M. Wilberg, Norwegian Directorate of Health, Norway.

The secretary function will be held by Norway, by the Norwegian Directorate of Health.

The participating countries have agreed that the work will continue with

administration following presidencies of the Nordic Council of Ministers. In this way, each Nordic country will administrate the work in shift, one year at a time. The work has been continued with leadership by the country holding the presidency of the Nordic Council of Ministers. In 2011 the host country and leadership was Finland, and in 2012 it was Norway.

Meetings:

Frequency:

Three meetings are expected to be held in 2012. In addition to this, additional meeting or video conferences will be held if needed.

Memorandum from the meetings:

The Norwegian Directorate of Health will keep notes during the meetings and make a memorandum. After each meeting, the Norwegian Directorate of Health will send out the memorandum. The working group will have a two weeks deadline to comment the memorandum before it is considered approved.

The mandate:

The working group will work with Nordic quality indicators for oral health care. The working group has agreed on the following tasks and liability for the work in 2012:

- Follow and discuss the developing of European, and especially Nordic, quality indicators
- Develop existing indicators and assess new indicators
- Each country shall update the settled indicators from 2012 (the table) and give data on new indicators if possible. This data is to be delivered to the country with administrative responsibility.
- The country administrating the group has the responsibility to compile the data and publish this.
- Try to link this work with the OECD Health Care Quality Indicators project work.
- Extensive analyze of some of the indicators, such as:
    - More about the data source
    - Social aspects
    - Possible explanations for the differences between the Nordic countries
    - Benchmarking (what is the goal (if there is one) and comparisons to this goal)
    - What use has this, and what can we learn from each other?

The extensive analyze applies to the indicators:

a. DMFT
b. SiC
c. Number of teeth
d. The financing systems
e. Cost-benefit: how much do we use, and what do we get out of it?

Indicator form **Annex 2**

Indicator number, Indicator name Date: Written by: Name/organization	
Definition	
Unit of measurement	Example: Andel, procent, antall, ja/nei
Purpose of the indicator:	Hva viser indikatoren? (beskrivelse, utdypet definisjon, hva indikatoren uttrykker)
Interpretation:	Eksempel: Hög andel tyder på välfungerande rutiner
Target:	Målnivå om mulig (eksempel: For SIC-indeks har EU satt mål på 3)
Type of indicator:	Process, outcome or structure
Technical description:	*Numerator:* Denominator*:*
Sources:	The countries use different data sources. Write about these.
Sources of error:	Possible bias. Ex: The countries use different type of data sources. This makes it problematic/challenging to compare between countries.
Geographical level of publishing	Each country publish data for the whole country.
Accounting groups:	For eksempel: alder, aldersgruppering (0-65, 65-79, 80+), könsfordeling
Quality area:	Eksempel: Vård i rimlig tid, forebyggende innsats, utdanning, geografisk fordeling, sosial ulikhet

We have unfortunately not received annexes with more information for indicator number 1, 5 or 9.

Annex 3

Indicator number 2: Number of inhabitants per active oral health care personnel under retirement age
Date: August 2012
Written by: Norwegian Directorate of Health

Definition	2a: Number of inhabitants/active[10] dentist 2b: Number of inhabitants/active oral hygienist 2c: Number of inhabitants/active specialists 2d: Number of inhabitants/active orthodontist 2e: Number of inhabitants/active oral surgeion
Unit of measurement	Number of people
Purpose of the indicator:	By monitoring the number of active personnel, not just the number of legitimate, one can get information on how many that is actually working. For some countries, there is a big difference between the ratios of licensed personnel and active personnel. The number gives an impression of the situation for the inhabitants in each country in the access to oral health care personnel. The indicator expresses how many inhabitants one oral health care personnel that is actually working can have. The overall aim is the provision of an adequate number of personnel with appropriate competencies to meet the service needs of the population.
Interpretation:	A low number of people give an impression that the access to oral health care personnel is better/easier than a high number of people.
Target:	No known consensus of a target level.
Type of indicator:	Structure indicator
Technical description:	*Numerator:* Number of inhabitants *Denominator:* Number of active, licensed oral health care personnel under retirement age
Sources:	**Sweden:** Source: The National Board of Health and Welfare and Statistics Sweden. Inclusion of active/employment rate: Active personnel. The employment rate is unknown. **Denmark:** Source: The National Board of Health and Statistics Denmark. Inclusion of active/employment rate: Number of legitimate, not active. Includes people under 70 years of age. **The Faroe Islands:** Annual SCOR statistic. **Finland:** Source: Statistics Finland and Valvira (National Supervisory Authority for Welfare and Health). Inclusion of active/employment rate**:** Number of legitimate, not active. Includes people under 64 years of age. **Iceland:** Source: The National Board of Health and Statistics. Inclusion of active/employment rate**:** Number of active. Includes people under 67 years of age. **Norway:** Source: Statistics Norway (SSB) and different administrative registers in Norway. Inclusion of active/employment rate: Active personnel under 67 years.

[10] Active: A licensed person who is actually practicing. – Full time? – One active personnel=100 % work (Ex two persons working 50 % or one working 100%).

Sources of error:	Possible bias: - Different type of data sources (see above) - Different year of collecting the data - Different retirement ages in each country - Different inclusion criteria: Some countries do not have a retirement age or the overview of this. - The number of recognized specialties varies from two in Denmark to twelve in Iceland. This may affect the ratio of population per specialist. - Different geographical structure. These differences make it problematic/challenging to compare between countries.
Geographical level of publishing	Each country publishes data for the whole country.
Accounting groups:	*Numerator:* Number of all inhabitants *Denominator:* Oral health care personnel under retirement age
Quality area:	Care within reasonable time.

Indicator number 3: Number of dentists under retirement age per legitimate oral health care personnel

Date: August 2012

Written by: Swedish National Board of Health and Welfare

Definition	3.1 Number of licensed dentists per licensed oral hygienists 3.2 Number of licensed dentists per licensed specialist 3.3 Number of active dentists per active oral hygienists 3.4 Number of active dentists per active specialists
Unit of measurement	Number of people
Purpose of the indicator:	The structure of health care systems is considered as key element of effective management and essential for attainment of health system goals: improving health, responding to the legitimate expectation of the population and fairness of the contribution. Especially the numbers of active workforce need to be monitored. It is important to have regulatory systems to ensure that the oral health workforce of the future is prepared to meet the changes that may take place in health care delivery.
Interpretation:	The indicator reflects skill mix in dentistry.
Target:	No known consensus of a target level.
Type of indicator:	Structure indicator
Technical description:	*Numerator:* Number of licensed dentists, number of active dentists *Denominator:* Number of licensed oral hygienist, number of licensed specialists. Number of active, licensed oral hygienists, number of licensed specialists
Sources:	**Denmark:** Source: The National Board of Health and Statistics Denmark. Inclusion of active/employment rate: Number of legitimate, not active. Includes people under 70 years of age. **The Faroe Islands:** The Faroese Dental Association's register of active, passive and retired members **Finland:** Source: Statistics Finland and Valvira (National Supervisory Authority for Welfare and Health). Inclusion of active/employment rate**:** Number of legitimate, not active. Includes people under 64 years of age. **Iceland:** Source: The National Board of Health and Statistics Denmark. Inclusion of active/employment rate**:** Number of legitimate, not active. Includes people under 67 years of age. **Norway:** Source: Statistics Norway (SSB) and different administrative registers in Norway. Inclusion of active/employment rate: Active personnel under 67 years. **Sweden:** Source: The National Board of Health and Welfare and Statistics Sweden. Inclusion of active/employment rate: Active personnel. The employment rate is unknown.
Sources of error:	Possible bias: - Different type of data sources (see above) - Different year of collecting the data - Different retirement ages in each country - Different inclusion criteria: Some countries do not have a retirement age or the overview of this.

	- The number of recognized specialties varies from two in Denmark to eight in Sweden. This may affect the ratio of population per specialist. - Different geographical structure. These differences make it problematic/challenging to compare between countries.
Geographical level of publishing	Each country publishes data for the whole country.
Accounting groups:	*Numerator:* *Denominator:*
Quality area:	Care within reasonable time.

Indicator number 4: Oral health service expenditure per capita

Date: 12th of February 2013

Written by: Ministry of Welfare, Iceland

Definition	The total cost of public dental service (PDS) per capita and the total oral health service expenditure per capita in Euros (€).
Unit of measurement	Number of Euros per capita
Purpose of the indicator:	Both private and public spending on oral health services per capita.
Interpretation:	Low cost can indicate an effective oral health care system, but it can also indicate low political or personal priority on oral health.
Target:	Containing costs within reasonable limits
Type of indicator:	Structure indicator
Technical description:	Numerator: Amount in Euros Denominator*:* Total number of inhabitants at any given time point.
Sources:	A System of Health Accounts (OECD, 2000) It is designed to provide a model for uniform reporting for countries with different ways of organising their national health system, and to meet the needs of analysts of health care systems and policy makers. The set of tables is based on common concepts, definitions, classifications and accounting rules in order to ensure comparability over time and across countries. Total health expenditure measures the final consumption of health care goods and services (i.e. current health expenditure) in addition to capital investment in health care infrastructure. The health accounts provide a comprehensive accounting framework for the entire field of health care activities. The system presents health expenditure by function of care, by source of funding and by provider industry. The objective of the health accounts is to constitute a system of comprehensive, internally consistent and internationally comparable accounts, which should also be compatible with other aggregate economic and social statistics as far as possible. Dental care is measured by the function HC 1.3.2 Out-patient dental care For more see: http://www.oecd.org/ We will also use data from each country on the private and public expenditure on oral health. Denmark: public expenses on oral health care in the public and private sector 2005, Ministry of Finance and estimated ”out of pocket expenses” based on Statistics Denmark consumer investigation 2002 to 2004. Finland: registerdata (Sotkanet) Totala kostnader för tandvård per år inkluderande patientavgifter, statliga tandvårdsersättningar (= offentlig finansiering), administrativa kostnader och investeringsutgifter. Inkluderar både offentlig och privattandvård/Antal invånare (totala befolkningsantalet) Iceland: From the Statistics Iceland. The figures are based on Health Accounts in Iceland and a household survey for the private expenditure. The public spending for oral health care in year 2011 has not decreased in Icelandic kronur (ISK) but because of the falling rate of the Icelandic krona it looks as the public spending has decreased since 2008. Euro now calculated at the mean rate for the years 2001-2011. 1 Euro = 105,5 ISK.

	Norway: The figures are based on Health Accounts in Norway. Health accounts are based on National accounts and System of Health Accounts (OECD 2000). The cost to health purposes includes all expenditure, both private out of pocket payment for patients and public costs that goes to consumption or investment in oral health services. 1 EURO = 7,772 NOK (EURO per 1.1.2010) Sweden: Source: Statistics Sweden. 1 EURO = 9,50 SEK
Sources of error:	In some countries the public oral health cost figures may not contain the total cost of the running the public oral health clinics. Not having a common currency is a source of error, especially when the economic situation in the countries is unstable.
Geographical level of publsihing	Data reported on a national level
Accounting groups:	All age groups
Quality area:	With the other indicators it may give some indication of how effectively the resources are used.

Annex 6

Indicator number 6: Daily tooth brushing in school-aged children
Date: August 2012
Written by: Norwegian Directorate of Health

Definition	Daily tooth brushing (more than once a day) in 11-, 13- an 15-year-old girls and boys.
Unit of measurement	Percent (%) - The findings presented are the proportions who reported brushing their teeth more than once a day.
Purpose of the indicator:	Tooth brushing is considered to be an important method for maintaining gum health and controlling plaque formation[11]. The indicator expresses health behavior in school-aged children (11-, 13- and 15-year-old girls and boys). Those who brush their teeth more than once a day by 12 years of age are more likely to continue to do so throughout their teenage years and into adulthood[12]. Low-frequency tooth brushing tends to be accompanied by smoking, unhealthy eating patterns and low levels of physical activity[13].
Interpretation:	The higher percentage, the better chance for good oral health.
Target:	100 %, as the universally recommended frequency for tooth brushing is twice a day[14].
Type of indicator:	Process indicator
Technical description:	*Numerator:* Number of people answering "more than once a day". *Denominator:* Number of people asked. Young people were asked how often they brushed their teeth. Response options ranged from "never" to "more than once a day".
Sources:	For all countries except the Faroe Islands, the information comes from WHO Health behavior in school-aged children studies (HBSC)[15]
Sources of error:	
Geographical level of publishing	Each country publish data for the whole country.
Accounting groups:	Ages 11, 13 and 15 and girls/boys.
Quality area:	Prevention effort, HBSC findings highlight oral health inequalities, indicating that policy-making should focus on initiatives that target boys and low-affluence groups.

[11] Löe H (2000). Oral hygiene in the prevention of caries and periodontal disease. International Dentistry Journal: 50:129-39.
[12] Koivusilta L et al (2003). Toothbrushing as part of the adolescent lifestyle predicts education level. Journal of Dental Research, 2003, 82(5):361–366.
[13] Honkala S et al (2011). Toothbrushing and smoking among adolescents – aggregation of health damaging behaviours. Journal of Clinical Periodontology, 2011, 38(5):442–448.
[14] Löe H (2000). Oral hygiene in the prevention of caries and periodontal disease. International Dentistry Journal: 50:129-39.
[15] http://www.hbsc.org

Indicator number 7: Consumption of non-diet soft drinks

Date: August 2012

Written by: Swedish National Board of Health and Welfare

Definition	Daily intake of non-diet soft drinks among 11-, 13- and 15-year-old girls and boys. Young people were asked how often they drink sugared soft drinks. Responses ranged from “never” to “more than once a day”.
Unit of measurement	Percentage (%) of children daily intake of sugared soft drinks.
Purpose of the indicator:	Consumption of non-diet soft drinks is an indicator of less-healthy food intake, primarily in the context of the increasing prevalence of overweight and obesity. Soft drinks are generally considered as “empty calories” that inhibit the intake of more nutritious foods, posing serious challenges to adolescent compliance with current dietary guidelines. Consumption of soft drinks and other sugars has been associated with an elevated risk of poor oral health in adolescence, particularly caries and dental erosion, and this relationship is cumulative.
Interpretation:	A lower percentage is considered better for maintaining good oral health.
Target:	No known consensus of a target level.
Type of indicator:	Process indicator
Technical description:	*Numerator:* Number 11-, 13- and 15-year-old girls and boys with a daily intake of non-diet soft drinks. *Denominator:* Number of 11-, 13- and 15-year-old girls and boys asked.
Sources:	For all countries except the Faroe Islands, the information comes from WHO Health behavior in school-aged children studies (HBSC)[16]. Faroe Islands use questioner sent to school children.
Sources of error:	Lack of coverage for responses to the survey.
Geographical level of publishing	Each country publishes data for the whole country.
Accounting groups:	Ages 11, 13 and 15 and girls/boys.
Quality area:	Prevention effort, HBSC findings highlight oral health inequalities, indicating that policy-making should focus on initiatives that target boys and low-affluence groups.

[16] http://www.hbsc.org

Indicator number 8: Children and adolescents with no obvious decay experience (no dentine caries, D3MFT=0 and d3mft=0).

Date: 12th of February 2013

Written by: Ministry of Welfare, Iceland

Definition	Proportion of children and adolescents who have no obvious decay experience.
Unit of measurement	Percentage
Purpose of the indicator:	To evaluate the effectiveness of oral health programs, self-care and oral health care services in maintaining oral health and controlling dental caries sufficiently for it to remain in the early stage of decay.
Interpretation:	High proportion indicates good oral health in the population in terms of dental caries.
Target:	The aim is that the majority of the population will have no obvious decay experience.
Type of indicator:	Outcome indicator
Technical description:	*Numerator:* Number of children of certain age, 5-7 years, 12 years , 15 years and 17/18/19 years old with no obvious decay experience, $D_3MFT=0$ and $d_3mft=0$ Denominator*:* Number of children same age in the population surveyed.
Sources:	**Sweden:** Source: Population survey. The National Board of Health and Welfare and Statistics Sweden. Regular survey. Deviation from the inclusion criteria: Sweden does not register missing teeth (M). **Denmark:** Source: Oral Health Register (SCOR), National Board of Health. Specific calculation. **The Faroe Islands:** Source: Oral Health Register (SCOR), National Board of Health Denmark. **Finland:** No data. **Iceland:** Source: Population survey. Ministry of Welfare, University of Iceland. **Norway:** Source: Statistics Norway (SSB). Reported annually from each municipality to the SSB. 12 year olds examined in the past year in the public dental service.
Sources of error:	The countries use different type of data sources: Some sources are surveys, others are registers. Sweden does not register missing teeth (M). This makes it problematic/challenging to compare between countries.
Geographical level of publishing	Each country publishes data for the whole country.
Accounting groups:	The countries collect data for different age groups. That is why we use the severeal age groups: 5-7-,12-, 15- and 17-19-year-old children.
Quality area:	Prevention effort, highlight oral health inequalities, indicating the need for treatments in the future. Evaluating effectiveness of oral health programs, self-care and oral health care services in maintaining oral health and controlling dental caries sufficiently for it to remain in the early stage of decay.

Indicator number 10: Significant caries index (SiC-index)[17]
Date: August 2012
Written by: Norwegian Directorate of Health

Definition	SiC-index is the mean DMFT of the one-third of 12-year-olds with the highest caries values.
Unit of measurement	Mean DMFT (Decayed, Missing and Filled Teeth).
Purpose of the indicator:	The SiC-index is an indicator that reflects the situation among the most caries-exposed individuals. The index was introduced in order to bring attention to the individuals with the highest caries values.
Interpretation:	The lower score, the better is the situation among the most caries-exposed individuals.
Target:	WHO has settled 3 as a target for the SiC-index.
Type of indicator:	Outcome indicator.
Technical description:	The Significant Caries Index is calculated as follows: 1) Individuals in the population, 12 year olds, (sample) are sorted according to their DMFT values 2) One third of the population with the highest caries scores is selected 3) The mean DMFT for this subgroup is calculated. This value is the SiC Index.
Sources:	**Sweden:** Source: Population survey. The National Board of Health and Welfare and Statistics Sweden. Regular survey. Deviation from the inclusion criteria: Sweden does not register missing teeth (M). **Denmark:** Source: Oral Health Register (SCOR), National Board of Health. Specific calculation. **The Faroe Islands:** Source: Oral Health Register (SCOR), National Board of Health Denmark. **Finland:** No data. **Iceland:** Population survey. Ministry of Welfare, University of Iceland. **Norway:** Source: Statistics Norway (SSB). Reported annually from each municipality to the SSB. 12 year olds examined in the past year in the public dental service.
Sources of error:	The countries use different type of data sources: Some sources are surveys, others are registers. Sweden does not register missing teeth (M). This makes it problematic/challenging to compare between countries. It seems most significant to compare Denmark, the Faroe Islands and Norway.
Geographical level of publishing	Each country publish data for the whole country.
Accounting groups:	12-year-old children.
Quality area:	Prevention effort, highlight oral health inequalities, indicating the need for treatments in the future.

[17] www.whocollab.od.mah.se

Indicator number 11: Edentulous prevalence in adults aged 65–74 years

Date: August 2012

Written by: Swedish National Board of Health and Welfare

Definition	Proportion of 65–74 year old adults who have lost all their natural teeth.
Unit of measurement	Percentage
Purpose of the indicator:	Better oral hygiene, access to care, technical advances in oral health care and socioeconomic factors have resulted in more people retaining their natural teeth in later life. Loss of all natural teeth can contribute to psychological, social and physical impairment. Edentulous prevalence is a measure of past disease and an indicator of oral health. The edentulous prevalence index is recommended by the WHO (WHO, 1997) and reducing the number of edentulous persons is one of the WHO global goals for oral health for the year 2020. The use of age group 65–74 is recommended by the WHO.
Interpretation:	The lower percentage edentulous people in the population indicate better oral health and better oral function.
Target:	Reducing the number of edentulous persons is one of the WHO global goals for oral health for the year 2020.
Type of indicator:	Outcome indicator.
Technical description:	*Numerator:* Number of 65–74 year old adults who have lost all their natural teeth (edentulous). *Denominator:* Number of 65–74 year old adults in the population *Edentulous:* A condition characterised by not having any natural teeth. *Natural teeth:* Includes teeth which erupted into the mouth and excludes artificial teeth, implants, dentures.
Sources:	**Denmark**: The National Institute of Public Health, SUSY a national health interview survey, 2010. 2166 persons in the age group 65-74 were asked. Question: How many teeth do you have left? **Finland**: Health 2011 survey, National Public Health Institute (KTL) **Iceland**: Numbers from a Health Survey 2007, questionnaire sent by mail. The Public Health Institute of Iceland. **Norway**: The figures are based on a questionnaire survey; the health interview survey "Levekårsundersøkelsen 2008" from Statistics Norway (SSB). The health interview survey is a country representative questionnaire and interview survey. It is important to emphasize: – That it is only people in households who answer the survey, not people in institutions such as nursing homes. – That there is relatively significant drop in the oldest age groups in the survey, especially in the age group 67 years and older. The question people answered to: "Approximately how many of your own teeth do you have left? (Adults have 28 teeth + 4 wisdom teeth.)". 4 alternatives were given: 1: 20 or more, 2: 10–19, 3: 1–9, 4: 0. **Sweden**: Register data. Source: The National Board of Health and Welfare.
Sources of error:	The countries use different type of data sources: Some sources are surveys, others are registers.
Geographical level of publishing	Each country publish data for the whole country.
Accounting groups:	Individuals ages 65-74 year old
Quality area:	Prevention effort, highlight oral health inequalities

Indicator number 12: Functional occlusion prevalence in adults aged 65-74 years

Date: 12th of February 2013

Written by: Ministry of Welfare, Iceland

Definition	Proportion of adults aged 65-74 years old who have at least 20 natural teeth remaining.
Unit of measurement	Percentage
Purpose of the indicator:	To establish the proportion of the population aged 65-74 years who have the minimum amount of natural teeth to have a satisfactory functional occlusion according to international standards and recommendations by the WHO. One of the WHO global goals for oral health for the year 2020 is to increase this percentage. The age group 65–74 is recommended by the WHO for this indicator. Most of the countries have data on remaining teeth, few know if the remaining teeth are in occlusion or not. This data does still tell something about the oral health.
Interpretation:	Higher proportion indicates better oral health
Target:	To increase the proportion of the population aged 65-74 years old who have at least 20 natural teeth remaining.
Type of indicator:	Outcome indicator
Technical description:	*Numerator:* Number of cases of adults aged 65-74 years with at least 20 natural* teeth remaining **Natural teeth:* Includes teeth which erupted into the mouth and excludes artificial teeth, implants, dentures *Denominator:* Number of 65–74 year old adults in the population surveyed.
Sources:	**Denmark**: The National Institute of Public Health, SUSY a national health interview survey, 2010. 2166 persons in the age group 65-74 were asked. Question: How many teeth do you have left? **Finland**: Health 2000 survey, National Public Health Institute (KTL) **Iceland**: Numbers from a Health Survey 2007, questionnaire sent by mail. The Public Health Institute of Iceland. **Norway**: The figures are based on a questionnaire survey; the health interview survey "Levekårsundersøkelsen 2008" from Statistics Norway (SSB). The health interview survey is a country representative questionnaire and interview survey. It is important to emphasize: – That it is only people in households who answer the survey, not people in institutions such as nursing homes. – That there is relatively significant drop in the oldest age groups in the survey, especially in the age group 67 years and older. The question people answered to: "Approximately how many of your own teeth do you have left? (Adults have 28 teeth + 4 wisdom teeth.)". 4 alternatives were given: 1: 20 or more, 2: 10–19, 3: 1–9, 4: 0. **Sweden**: Register data. Source: The National Board of Health and Welfare.
Sources of error:	The countries use different type of data sources: Some sources are surveys, others are registers. This makes it problematic/challenging to compare between countries. Different years of reporting the data makes it challenging to compare across the Nordic countries. The figures for some countries include people living in institutions for aged and disabled and others do not. Most of the countries have data on remaining teeth, few know if the remaining teeth are in occlusion or not.

Geographical level of publishing	Each country publishes data on a national level.
Accounting groups:	65-74 years old adults.
Quality area:	Prevention effort, highlights oral health inequalities.

Annex 12

SURVEYS IN THE NORDIC COUNTRIES

DENMARK:

The National Institute of Public Health, SUSY a national health interview survey, 2005.
15 165 people over the age of 18 were asked.

Spørsmål 1:
Antall tenner igjen:
Tandløs
1-9 tænder tilbage
10-19 tænder tilbage
20 eller flere tænder tilbage
Alle tænder tilbage
Ved ikke/ uoplyst

Spørsmål 2:
Regelmessig tannlegebesøk:
Svarpersonerne er endvidere blevet bedt om at angive, hvorvidt de i løbet af de seneste 5 år regelmæssigt har gået til tandlæge. Regelmæssigt er defineret som mindst 1 gang årligt.

THE FAROE ISLANDS:

"Endnu har Fø ingen tandhelsespørgsmål med i landsomfattende undersøgelser, men dett kan nok etableres fremover, hvis de nordiske lande bliver enige om et fælles spørgeskema".

ICELAND:

The Public Health Institute of Iceland sent a questionnaire, the National Health Survey by mail in 2007 and a follow-up in 2009.
Questions about the number of teeth:
We ask about the number of your own teeth. Please count your teeth in upper and lower jaw in front of a mirror, mark the existing teeth in the appropriate boxes. Do not count prosthesis or dental implants (implants are fake teeth that are implanted into the jaw bone). If you have a full prosthesis you mark «no tooth». The maximum amount of teeth is 32 if the 4 third molars are included, 16 in each jaw.
How many teeth do you have in the upper jaw?
None, 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 teeth
How many teeth do you have in the lower jaw?
None, 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 teeth

NORWAY:

1. From «Levekårsundersøkelsen om helse, omsorg og sosial kontakt 2008» in 2008, a National health interview survey. 8500 people over the age of 16 were asked.

Spørsmål 1:
Hvordan vurderer du din tannhelse?
Svaralternativ:
O Meget god O God O Verken god eller dårlig O Dårlig O Meget dårlig

Spørsmål 2:
Omtrent hvor mange av dine egne tenner har du igjen?
Svaralternativ:

O 20 eller flere O 10-19 O 1-9 O Ingen

Spørsmål 3:
Når var du sist hos tannlege?
Svaralternativ:
O 6 mnd. eller mindre O 7-12 mnd. siden O 1-2 år siden O Mer enn to, men mindre enn fem år siden O Mer enn fem år siden?

Spørsmål 3 B: Hvis 3= 1 'sist hos tannlege 6mnd. siden eller mindre' eller 2 '7-12 mnd. siden:
Angi så nøyaktig som mulig hvor mye du til sammen har betalt hos tannlegen i løpet av de siste 12 mnd.
Svarer beløp: _____

Spørsmål 3 C: Hvis 3= 1 'sist hos tannlege 6mnd. siden eller mindre' eller 2 '7-12 mnd. siden:
Har du måttet kontakte tannlege pga. akutte problemer siste 12 mnd.?
Svaralternativ:
O Ja O Nei

Spørsmål 3 D: Hvis 3= 1 'sist hos tannlege 6mnd. siden eller mindre' eller 2 '7-12 mnd. siden:
Er du fornøyd med hvor raskt du fikk hjelp?
Svarer tekst: _____
Ønsker: Svaralternativer (ja/nei eller annet?)

Spørsmål 4:
Har du noen gang i løpet av de siste 12 mnd. hatt behov for å gå til tannlege uten å gjøre det?
Svaralternativ:
O Ja O Nei

Spørsmål 4 A: Hvis 4= 1 'Ja:
Hva var hovedgrunnen til at du ikke gikk til tannlege?
O Økonomi O Tid O Problemer med transport O Redd O Fordi de ville se om problemet ble bedre av seg selv O Fordi de ikke kjente noen god tannlege/behandler O Andre årsaker
Ønsker:
Ta vekk "annet", legge til alternativet: "bryr seg ikke/synes ikke det er viktig".

Spørsmål 5:
Hvor ofte pusser du med fluortannkrem?
Svaralternativ: O Bare om morgenen O Bare om kvelden O Morgen og kveld O Flere ganger om dagen.
Ønsker i tillegg:
svaralternativet "sjeldnere".

Spørsmål 6: Hvis 3= 1 'sist hos tannlege 6mnd. siden eller mindre' eller 2 '7-12 mnd. siden:
Hva har du fått utført hos tannlege siste året?
Svaralternativ:
O Undersøkt tenner og tatt røntgenbilder
O Fylt hull/byttet fylling
O Satt inn krone eller bro
O Rotfylt tann
O Satt inn implantat
O Tannkjøttsbehandling
O Bleking av tenner
O Råd om munnstell og fjernet tannstein
O Trekking av tann/tenner

2. From «Levekårsundersøkelsen 2012» in 2012:

Spørsmål 1:
Hvordan vurderer du din tannhelse?
Svaralternativ:
O Meget god O God O Verken god eller dårlig O Dårlig O Meget dårlig

Spørsmål 2:
Omtrent hvor mange av dine egne tenner har du igjen?
Svaralternativ:
O 20 eller flere O 10-19 O 1-9 O Ingen

Spørsmål 3:
Når var du sist hos tannlege?
Svaralternativ:
O 6 mnd. eller mindre O 7-12 mnd. siden O 1-2 år siden
O Mer enn to, men mindre enn fem år siden O Mer enn fem år siden

Spørsmål 4:
Har du noen gang i løpet av de siste 12 mnd. hatt behov for å gå til tannlege uten å gjøre det?
Svaralternativ:
O Ja O Nei

SWEDEN:
From the survey «Den vuxna befolkningens tandhälsa» in 2012, sent to 8400 people age 20 or more:

Besök i tandvården

1. Känner du till att…

		Ja	Nej
a.	… det finns ett allmänt tandvårdsbidrag?	☐	☐
b.	… det finns ett allmänt högkostnadsskydd?	☐	☐
c.	… det råder fri prissättning på tandvård?	☐	☐

2. När var du senast hos tandvården för undersökning/behandling av tänder och mun?

- ☐ Högst 3 månader sedan
- ☐ 4 – 11 månader sedan
- ☐ 1 – 2 år sedan
- ☐ Mer än 2 år – högst 5 år sedan
- ☐ Mer än 5 år sedan
- ☐ Har aldrig varit hos tandvården → *Gå till fråga 9a*

3. Vilket var skälet till att du besökte tandvården senast?
Du kan markera flera svar.

- ☐ Akuta besvär
- ☐ Fortsatt behandling efter akutvård
- ☐ Rutinmässig undersökning
- ☐ Fortsatt behandling efter rutinmässig undersökning
- ☐ Behandling hos tandhygienist
- ☐ Annat

4. Hur ofta brukar du gå till tandvården för rutinmässig undersökning?

- ☐ Två eller fler gånger om året
- ☐ En gång om året
- ☐ Vartannat år
- ☐ Med längre mellanrum än 2 år

5. a) Vid din senaste rutinmässiga undersökning, tycker du att du fick tillräcklig information från tandvårdspersonal så att du själv kan förebygga tandsjukdomar?

- ☐ Ja, i huvudsak
- ☐ Ja, till viss del
- ☐ Nej
- ☐ Vet ej

b) Besökte du vid detta tillfälle privattandvården, folktandvården eller en tandläkarhögskola?

- ☐ Privattandvården
- ☐ Folktandvården
- ☐ Tandläkarhögskola
- ☐ Vet ej

1

6. *Tandläkaren/tandhygienisten är skyldig att ge dig en preliminär prisuppgift som täcker hela behandlingen om du ska behandlas vid mer än ett tillfälle.*

a) Fick du inför din senaste behandling veta hur mycket hela behandlingen skulle komma att kosta?

- ☐ Ja, muntligt
- ☐ Ja, skriftligt
- ☐ Ja, både muntligt och skriftligt
- ☐ Nej, de kunde inte/ville inte ge besked
- ☐ Nej, frågan togs inte upp
- ☐ Nej, det behövdes inte
- ☐ Vet inte/minns inte

b) Besökte du vid detta tillfälle privattandvården, folktandvården eller en tandläkarhögskola?

- ☐ Privattandvården
- ☐ Folktandvården
- ☐ Tandläkarhögskola
- ☐ Vet ej

7. **a) Fick du tillräcklig information från tandvårdspersonal om dina behandlingsalternativ när det gällt mer omfattande behandlingar de senaste 12 månaderna?**
Omfattande behandling avser protetiska åtgärder som t ex brygga, krona eller implantat samt tandreglering.

- ☐ Har inte haft omfattande behandlingar de senaste 12 månaderna
- ☐ Ja, muntligt
- ☐ Ja, skriftligt
- ☐ Ja, både muntligt och skriftligt
- ☐ Nej, de kunde inte/ville inte ge alternativa förslag
- ☐ Nej, frågan togs inte upp
- ☐ Nej, det behövdes inte
- ☐ Vet inte/minns inte

b) Besökte du vid detta tillfälle privattandvården, folktandvården eller en tandläkarhögskola?

- ☐ Privattandvården
- ☐ Folktandvården
- ☐ Tandläkarhögskola
- ☐ Vet ej

8. **Tycker du att du har blivit respektfullt bemött när du besökt tandvården?**

- ☐ Ja, helt och fullt
- ☐ Ja, delvis
- ☐ Nej, inte alls
- ☐ Vet inte/ingen åsikt

9. **a) Har du någon gång de senaste 12 månaderna ansett dig vara i behov av tandvård men ändå avstått från att söka vård?**

- ☐ Ja, en gång
- ☐ Ja, flera gånger
- ☐ Nej ⟶ *Gå till fråga 10*

b) Om ja, vilken var den *viktigaste* orsaken till att du inte sökte tandvård senaste gången du var i behov av tandvård?
Obs. Fyll endast i ett alternativ.

- ☐ Hade inte tid själv
- ☐ Det var svårt att få tid hos tandvården
- ☐ Det gick över efter ett tag
- ☐ Ansåg att ett besök inte hjälpt
- ☐ Är rädd för att gå till tandvården
- ☐ Hade inte råd
- ☐ Jag hade lång väg till tandvården
- ☐ Prioriterar annat
- ☐ Annat skäl

10. Tycker du att tandvårdsbesök är så obehagligt att det hindrar dig från att söka vård?

- ☐ Ja, absolut
- ☐ Ja, delvis
- ☐ Nej, inte alls

Allmän hälsa och tandhälsa

11. Hur tycker du att din allmänna hälsa är?

- ☐ Mycket bra
- ☐ Ganska bra
- ☐ Varken bra eller dålig
- ☐ Ganska dålig
- ☐ Mycket dålig

12. Hur tycker du att din tandhälsa är?

- ☐ Mycket bra
- ☐ Ganska bra
- ☐ Varken bra eller dålig
- ☐ Ganska dålig
- ☐ Mycket dålig

13. Har du enbart egna tänder eller har du löständer (avtagbar protes)?
Till egna tänder räknas även fastsittande bryggor, kronor och implantat.

- ☐ Enbart egna tänder
- ☐ Enbart löständer
- ☐ Både löständer och egna tänder
- ☐ Varken löständer eller egna tänder

14. Har du tandluckor efter tand/tänder som saknas?

- ☐ Ja, har lucka/luckor efter tand/tänder som saknas och vill få det åtgärdat
- ☐ Ja, har lucka/luckor efter tand/tänder som saknas men vill inte få det åtgärdat
- ☐ Nej, har inga luckor

15. Hur ofta har du ont i tinning, ansikte, käkled eller käkarna?

- ☐ En gång i vecka eller oftare
- ☐ Mer sällan än en gång i veckan
- ☐ Aldrig

16. Hur ofta har du ont när du gapar eller tuggar?

- ☐ En gång i vecka eller oftare
- ☐ Mer sällan än en gång i veckan
- ☐ Aldrig

17. Kan du tugga hårda saker som hårt bröd eller äpplen?

- ☐ Ja, utan svårighet
- ☐ Ja, men måste vara försiktig
- ☐ Nej, inte alls

18. Hur ofta har du under de senaste sex månaderna haft problem med tänder eller proteser som gjort det svårt för dig att…

		Aldrig	Mindre än en gång i månaden	1 till 2 ggr i månaden	1 till 2 ggr i veckan	Dagligen
a.	…äta och njuta av maten?	☐	☐	☐	☐	☐
b.	…tala och uttala ord tydligt?	☐	☐	☐	☐	☐
c.	…sköta din munhygien?	☐	☐	☐	☐	☐
d.	…sova eller koppla av?	☐	☐	☐	☐	☐
e.	…le, skratta eller visa dina tänder?	☐	☐	☐	☐	☐
f.	…glädjas åt samvaron med andra?	☐	☐	☐	☐	☐
g.	…utföra dina dagliga sysslor?	☐	☐	☐	☐	☐

19. a) Hur nöjd eller missnöjd är du med hur dina tänder eller proteser ser ut?

- ☐ Mycket nöjd → *Gå till fråga 20*
- ☐ Ganska nöjd → *Gå till fråga 20*
- ☐ Varken nöjd eller missnöjd → *Gå till fråga 20*
- ☐ Ganska missnöjd
- ☐ Mycket missnöjd

b) Om du är missnöjd med hur de ser ut, vilken är den *viktigaste* orsaken till att du inte åtgärdat det?

Obs. Fyll endast i ett alternativ.

- ☐ Har inte hittat någon tandläkare
- ☐ Har aldrig brytt mig om att försöka
- ☐ Tror inte att det finns någon åtgärd som kan förbättra utseendet
- ☐ Har inte råd
- ☐ Har inte haft tid
- ☐ Har inte velat fråga tandläkare
- ☐ Jag har lång väg till tandvården
- ☐ Är rädd för att gå till tandvården
- ☐ Går inte att åtgärda
- ☐ Jag prioriterar andra saker
- ☐ Annan orsak
- ☐ Vet ej

26. Har du hemmavarande barn 18 år eller äldre (egna eller makes/makas/sambos)?
Räkna med de barn som bor minst 2/3 av tiden hos dig.

☐ Ja, antal barn: ☐
☐ Nej

27. Vilken är din huvudsakliga sysselsättning just nu?
Obs. Fyll endast i ett alternativ.

☐ Arbetar som anställd
☐ Egen företagare
☐ Studerande
☐ Pensionär (Ålders-, sjuk-, förtidspensionär)
☐ Långtidssjukskriven (mer än 3 månader)
☐ Tjänstledig eller föräldraledig
☐ Arbetssökande eller i arbetsmarknadspolitisk åtgärd
☐ Hemarbetande, sköter hushållet

☐ Annat, skriv i rutan:

28. Vilken inkomst har du per månad före skatt?
Räkna in alla inkomster från tjänst, studiemedel, pension, sjukpenning, arbetslöshetsersättning, socialbidrag, näringsverksamhet etc.

☐ 0 – 8 499 kronor
☐ 8 500 – 16 499 kronor
☐ 16 500 – 24 999 kronor
☐ 25 000 – 33 499 kronor
☐ 33 500 – 49 999 kronor
☐ 50 000 kronor eller mer

☐ Vill inte uppge inkomst

Tack för att du svarade på enkäten!

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