Session 3: Implications - Policy, Research & Training

Policy implications for tackling oral health inequalities

Oral presentation, 21\textsuperscript{st} May 2015, 16.00 - 16.20
Royal College of General Practitioners, London, UK

ICOHIRP
international centre for oral health inequalities research & policy

a global network committed to promoting oral health equity
Launch Conference in Partnership with Public Health England

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Content

1. Economics
2. Poverty
3. Oral Health Inequality
4. What we do
5. What we need – Policy implications
1. Economic impact
Economic impact of oral diseases

EU-27 spent an estimated **79 billion EUR** on oral health in **2012** and will spend around **93 billion EUR** by **2020**.

- Delivering oral health services accounted for **5% of total health expenditure** and **16% of private health expenditure** in OECD countries in 2009.
- Much of the burden in high-income countries is due to **caries** and its complications.
- Expenditure on treatment of oral conditions often exceeds that of cancer, heart disease, stroke and dementia.

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Health economics in Germany

Total health expenditure, public and private, as a share of GDP (2013): 11.2%
Public expenditure on health, as a share of GDP (2008): 8.9%

Health expenditure, Statutory Health Insurance (sick funds) (2013): 181.5 billion €

Selected functions of care as a share of health expenditure of the Statutory Health Insurance (2012):

- **Dental care:** 10.4 billion € = 6%
- **Ambulatory medical care:** 31.0 billion € = ~18%
- **Pharmaceuticals:** 27.1 billion € = ~16%
- **Hospitals:** 65.1 billion € = ~38%

2.

Poverty
Poverty and social exclusion in 2013, proportion of the population in %

Source: European Union Statistics on Income and Living Conditions, EU-SILC 2013
Picture: dpa / picture alliance / Paul Zinken
3. Oral Health Inequality
Inequalities in oral health: A major public health burden in Europe

Access to oral healthcare services remains a major problem among vulnerable and low income groups.

Only 41% of Europeans still have all their natural teeth.

- **Unmet needs** for dental care remain
- **Specific at risk groups**: “poor” children, immigrants, frail elderly, Roma...
- **Caries**: a problem for Eastern Europe and for socioeconomically deprived groups in all EU Member States
- higher incidence of **oral cancer** and **periodontal diseases** in lower SES-groups

Oral Hygiene

Prevalences (%) and trend of more-than-once-a-day toothbrushing among 11–15-year-old schoolchildren in 20 different countries from the HBSC-surveys (1994-2010)

**Challenge: social gradients oral health inequalities**

Caries polarisation in children (12-years) – DMFT-spread in Germany

10 percent of the children account
60 percent of high caries experience

- **70.1** percent of 12-year olds are free of caries (2006)
- The mean national DMFT-score for 12-year olds is **0.7** (2006)
- **SiC = 2.6** (2006)
- Total expenditure for prevention measures: **512 Mio. €** (2011)

Source: Fourth German Oral Health Study (DMS IV), Institute of German Dentists (IDZ, ed), Deutscher Zahnärzteverlag, Köln 2006
4. What we do
What we do

Ottawa Charter for Health Promotion, 1996

1. Population based
   - Building healthy public policy
   - Creating supporting environments

2. Collective or group oriented
   - ORAL HEALTH PROMOTION
     - Community preventive dental services; Kindergarten, school

3. Individual oral disease prevention
   - Dental practice
What we do

Population-based prevention

Building healthy public policy

Germany, national level (legislation):
- Legislation admits addition of fluoride to table salt (since 1991) but special approval is required for adding fluoridated salt to processed food
- In 2007, legislation has banned smoking in the workplace and public areas
- Youth Protection Legislation (2007) against smoking below the age of 18
- Alcopop act (2004): higher tax on alcopops, and Central Agency for Health Education (BZGA) mounted a campaign

In some regions:
- Oral health and nutrition policies in nurseries, Kindergartens and schools

Creating supporting Environments

Germany, national level (measures):
- Fluoridated salt with a market share of 70%; large supermarket chains sell only fluoridated table salt
- German Dental Association (BZÄK) advocates brief interventions in dental practices and primary preventive measures against starting Smoking
- Paediatricians called for: healthy vending machines policy in schools

In some regions:
“Sugar-free mornings and afternoons” in schools
Fluoridation + population based prevention

= Fluoridated salt

effect: up to 50% inhibition of caries

effective and efficient strategy

Market share: 70,0% (2013)
56.5 million people (2013)
## What we do

### Group prophylaxis - measures, settings and target groups

<table>
<thead>
<tr>
<th>Year</th>
<th>SETTING</th>
<th>Target group</th>
<th>GP-Measures (GP=group prophylaxis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>since 1989</td>
<td>Kindergartens, schools</td>
<td>Children up to 12 years</td>
<td>Orientation towards blanket coverage measures (nationwide): Disease diagnosis, caries risk, diet advice, enamel hardening (fluoridation)</td>
</tr>
<tr>
<td>since 1993</td>
<td>Kindergartens, schools</td>
<td>Children up to 12 years</td>
<td>Examination of the oral cavity, record of the dental status (teeth present)</td>
</tr>
<tr>
<td></td>
<td>Children with high caries risk</td>
<td></td>
<td>Specific programmes</td>
</tr>
<tr>
<td>since 2000</td>
<td>Special ability aid schools and institutions for the disabled</td>
<td>Adolescents up to 16 years with a very high caries risk, above-average</td>
<td>Disease diagnosis, caries risk, diet advice, enamel hardening (fluoridation), oral hygiene instructions, specific programmes</td>
</tr>
</tbody>
</table>
Cost of nursery toothbrushing programme and costs / expected savings resulting from actual and anticipated dental treatments - in comparison with 2001/02 dental treatment costs

Source: Child Smile Program Scotland, pic. Dr M. Taylor, CDO Scotland
Ways of oral prevention and health promotion in the life course in Germany

<table>
<thead>
<tr>
<th>Infant</th>
<th>kindergarten, preschool child</th>
<th>Child</th>
<th>Adolescent</th>
<th>Adult</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5 years</td>
<td>3 years</td>
<td>6 years</td>
<td>12 years</td>
<td>16 years</td>
</tr>
<tr>
<td>6 years</td>
<td>12 years</td>
<td>18 years</td>
<td>16 years</td>
<td>18 years</td>
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</tbody>
</table>

Means of oral prevention in Germany, Source: Institute of German Dentists, IDZ, 2004 based on Social Security Code V, BGBl. from 19th November 2003: p. 2190
Finance
What are the costs?

All sick funds (statutory health insurance)
- $475$ mil. (2013)
- $43$ mil. (2013)

... by national law

Group prophylaxis

Individual prophylaxis

Individualized dental preventive intervention (0- to 18-year-olds, „Individualprophylaxe“)

€ 43 mil. (2013)

... legally obligated to finance

Community preventive dental services

Group prophylaxis

Federal countries

Sum unknown, estimate: € 45 mil.

≈ $1.20$ € per resident/yr.

≈ $8$ € per person in the target group (below 16-yr-olds)

Source: Strippel H, Medical Advisory Service of the Statutory Health Insurance, Essen, Department of Dental Care, 2009; own update 2012
# Levels of Oral Prevention: Advantages and Disadvantages

<table>
<thead>
<tr>
<th>Prevention on the Population Level</th>
<th>Group Prevention</th>
<th>Individual Prophylaxis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pros</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• potentially good effectiveness</td>
<td>• good effectiveness</td>
<td>• Very good effectiveness</td>
</tr>
<tr>
<td>• very low costs</td>
<td>• low costs</td>
<td>• regularly dental check-ups</td>
</tr>
<tr>
<td>• Setting-approach</td>
<td>• Setting-approach (good access to dental care)</td>
<td>• effective against caries and periodontitis</td>
</tr>
<tr>
<td>• a broad radius of action</td>
<td>• a broad radius of action</td>
<td></td>
</tr>
<tr>
<td>• (regularly dental screening)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Cons</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Only effective against caries (fluoride prophylaxis)</td>
<td>• Only effective against caries (fluoride prophylaxis)</td>
<td>• High costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Barrier to access to dental services</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Limited radius of action</td>
</tr>
</tbody>
</table>
5. What we need - Policy implications
What is politically successful? Policy implications

Downstream interventions
- Biomedical approach to prevention
- Delivery of clinical preventive measures
- Provide oral health advice and health education
- Dental practices engage in health promotion

Upstream interventions
- Law, Political decisions Group + population based prophylaxis covered by the public;
- Community based prevention and health promotion
- Parenting: family education, family conferences, Triple P, …
- School programs
- Training dentists with knowledge to promote oral health equity
- Interdisciplinary working in the health care sector and with communities

Evidence-based interventions
- Fluoridation measures
- Tooth brushing, Tooth cleaning
Further policy implications and demands on politicians

- **Create Health(y) Legislation**: integrate oral health with general health promotion; responsibilities, finance, improve access to services, evaluation, ...
- **Promote policies to ensure access to Fluoride**: evidence on all levels, effective and efficient, maximise fluoride delivery for vulnerable groups
- **Invest in healthy environments and oral health promotion**: long-term, commitment, sustainability, access ...
- **Increase oral health literacy**
- **Encourage cross-sector partnership**: develop the roles of health and social care professionals
- **Recognise the Common risk factors**
- **Coordinate existing oral health strategies to reduce health inequalities in Europe**
- **Connect research and politics**
Expectations at policy level

Embed oral health in general preventive strategies!

- Applying fluoride
- Reducing dental injuries
- Increasing early detection of oral cancer
- Improving nutrition in young children
- Using fissure sealants
- Reducing sugar intake
- Reducing smoking and alcohol consumption

Address increasing oral health inequalities!

Guarantee and improve access to oral health care service!
Political focus on health inequality in Europe

Examples of good practice

**UK:** evidence-based toolkit for prevention + Child Smile in Scotland

**Water fluoridation programmes** (drinking water)

**Germany:** Fluoridated salt programmes

**France:** national prevention programme targeting teenagers

**Fluoridated milk programmes** (targeted to the population)

**Denmark:** preventative health care model

**Promoting sugar-free products**

**Latvia:** network of oral health centres

**Hungary:** Oral cancer screening in high-risk groups

**Sweden:** community-centred based programmes: oral health promotion targeted at immigrants families + advice for self-management of periodontal diseases

**Public online best practice portals**

**UK:** evidence-based toolkit for prevention + Child Smile in Scotland

**Fluoridated salt programmes**

**Restricting marketing & improving the labelling of certain food products**

**Restricting marketing & improving the labelling of certain food products**

**Fluoridated milk programmes** (targeted to the population)

**Better oral health**

**European Platform**

pic.: Dr P. Vassallo, President of POBOHE, CDO Malta
THANK YOU FOR LISTENING!

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