Prevention of Early Childhood Caries (ECC) and report from the ECC workshop with Balkan countries

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Outline

• Introduction
• The WHO Expert Group’s Recommendation - Way Forward Prevention and Control of Early Childhood Caries (ECC)
• Report from the ECC workshop with Balkan countries
Introduction
Dental caries in primary teeth, the 17th most prevalent condition, affects more than 486 million children worldwide.

Ref: Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016
Characteristic of ECC

The aetiology of ECC is complex and the disease progresses rapidly compared to caries development later in life.
Aetiology of Dental Caries, ECC

Ref: http://www.uccoh.org/resources.html
Why ECC is Problem?

*ECC is a global public burden, medically, socially and economically*

In England, over 60,000 children had decayed teeth extracted under GA during 2012 to 2013; Estimated cost of extraction of decayed teeth was £27.6 million.


Ref: Rugg-Gunn AJ. Getting diet right: dietary advice for health in practice. Dental Nursing. 2015;11(7):381-4
Purpose of Today’s Presentation

1. To summarize the WHO expert group’s recommendation to provide an overview of ECC prevention strategies

2. To summarize the action points to tackle ECC in Balkan countries
The WHO Expert Group’s Recommendation - Way Forward Prevention and Control of ECC
Definition of Early Childhood Caries (ECC)

The disease of ECC is the presence of one or more decayed (non-cavitated or cavitated lesions), missing (due to caries) or filled tooth surfaces in any primary tooth in a child under the age of six.
Overview of Risk Factors and Underlying Determinants of ECC

• Free sugars added to baby bottles/ in foods and drinks
• Nonuse, non-availability of fluoridated toothpaste
• Social determinants: family, culture and environment
• Genetics susceptibility
• Hypoplasia of enamel
• Nutritional status of mother and infant
• Oral flora
• Poor oral hygiene and control of dental plaque
• Breastfeeding – beyond 12 months, especially if frequent and/or nocturnal
• Saliva – quantity, constituents
### WHO Experts’ Recommendation

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<th>Health system</th>
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<td><strong>Strategy</strong>: ECC prevention with other health promotion initiatives such as actions against childhood obesity, breastfeeding initiative</td>
<td><strong>Integration of ECC activities into Primary Health Care Service</strong></td>
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<td><strong>Advocacy</strong>: Advocate the importance of primary teeth to parents/caregivers and the community</td>
<td><strong>Early detection</strong></td>
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| **Risk factor control**:  
  **Sugars**: Implement comprehensive programmes that promote the intake of healthy foods and reduce the intake of sugar-sweetened beverages and foods  
  **Fluoride**: Confirm the use of community fluoride administration, such as water, salt or milk as primary prevention of ECC  
  Use standard fluoride-containing toothpaste (1000-1500 ppm) in all children under the age of 6 | **Fluoride application** (Varnish, silver diamine fluoride), Sealant, ART | |
WHO Experts’ Recommendation

Community / Cross sectoral services

Strategy
• Align ECC prevention with other health promotion initiatives such as actions against childhood obesity, avoidance of free sugars in complementary foods and drinks, and promotion of breastfeeding

Advocacy
• Advocate the importance of primary teeth to parents/caregivers and the community by raising awareness of ECC’s impact on quality of life of young children
**Common risk factor control: Childhood Obesity and ECC**

- Worldwide obesity has more than doubled since 1980, and 41 million children under the age of 5 years were overweight or obese in 2014.

- Controlling free sugars intake has positive influences on both oral health and general health through prevention of non-desirable weight gain, obesity and associated non-communicable diseases (NCDs).
WHO Experts’ Recommendation

Community / Cross sectoral services

Risk factor: Sugars

- Implement comprehensive programmes that promote the intake of healthy foods and reduce the intake of sugar-sweetened beverages and foods, including introduction of taxation policy, awareness raising campaigns to reach all groups in society, implementation of recommendations on marketing of foods and unhealthy drinks to children
Comprehensive programme to reduce intake of sugar-sweetened beverages and foods

Implementation an effective tax on sugar-sweetened beverages

Implementation the set of recommendations on the marketing of foods and beverages to children

Development of nutrient-profiles to identify unhealthy foods and beverages
Implementation an effective tax on sugar-sweetened beverages

Sugary drinks contribute to the global rise of overweight and obesity in youth, including 42 million children aged under 5.
Strategies to Reduce Sugars Intakes

- PRODUCE AND IMPORT LESS
- USE LESS
- SELL LESS
- MARKET LESS
- ADVISE TO EAT LESS
- EAT LESS

UP STREAM  |  DOWN STREAM
WHO Experts’ Recommendation

Community / Cross sectoral services

Risk factor: Fluoride

• Confirm the use of community fluoride administration, such as water, salt or milk as primary prevention of ECC

• Use standard fluoride-containing toothpaste (1000-1500 ppm) in all children under the age of 6
WHO Experts’ Recommendation

Periodically outreach service, primary level service (not referral level)

• Integrate ECC prevention within the primary health care (PHC) approach measures and implement at appropriate times, such as vaccination period, as a public health focus

• Detect early caries lesions for early intervention
WHO Experts’ Recommendation

Periodically outreach service, primary level service (not referral level)

• Use fluoride varnish and sealants with glass ionomer cement as agents to help prevent deterioration of the ECC-affected dentition

• Support the use of silver diamine fluoride and ART, and other minimally invasive methods, using glass ionomer cement to stabilize the caries lesion
WHO Experts’ Recommendation

Health System

*Surveillance*

- Recommend inclusion of preschool children in subnational surveys as part of oral health population surveys conducted in the country. Such surveys should be based on the WHO Basic Oral Health Surveys and include risk factor assessment.

- Promote evaluation, surveillance and research, including cost-effectiveness for the prevention of ECC in different communities.
WHO Experts’ Recommendation

Health System

*Professional education*

- Emphasize ECC within oral health education and interprofessional education with other health professions
Report from ECC workshop with Balkan countries
### ECC workshop with Balkan countries

**Purpose:** Strengthen the prevention and management of ECC in countries on the Balkan Peninsula

<table>
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<tr>
<th>Participants</th>
<th>Albania, Bulgaria, Croatia, Romania, Serbia, Slovenia</th>
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| Current common situation | • Enough number of dentists  
|                     | • Exist school health service  
|                     | • Lack of collaboration with other health sectors  
|                     | • Lack of programme for pre-school children  
|                     | • Hard to reach pre-school children  
|                     | • Lack of data  |
## ECC workshop with Balkan countries

### Strategy – the way forward

- Integrate oral health promotion into other initiatives especially pre-school children
- Life-course approach (Early childhood → Childhood)

### Short-term objectives

- Situation analysis (Data collection)
- Enhance collaboration with other health sectors

### Long-term objectives

- Integrate oral health programme into NCD prevention through sugars control, Maternal Child Health programme
- For individual and community: Fluoride application (Tooth brushing education, Varnish)
Thank you.