

### Behaviours related to oral health

**Children aged 12 years old**

- 89.6 % brush their teeth twice a day
- 28.2 % take sweets
- 11.6 % take carbonated drinks everyday

**Adult 35-44 years old**

- 20.9 % smoke everyday average 10.4 cigarette

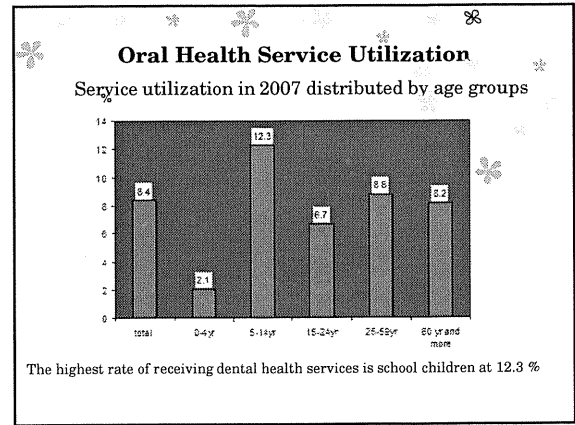
**Elderly 17.9 % smoke everyday average 7.5 cigarette**

**Children aged 12 years old**

- 80.5 % got oral examination & 45.1 % received treatment

**Adult 89.3 % & the Elderly 92.3 % received dental treatment in the past year**

Source: National Oral Health Survey VI, Dental Health Division, 2007




**Areas for Concern**

- High prevalence of dental caries in children
- Oral Health Promotion in adults
- Late detection of oral cancer
- Oral Health Problem related to chronic disease patients and the elderly society
- Access to dental care


**Oral Health Strategies**

- Promote preventive behavior in adults and adolescents personal dental care
- Increase accessibility of preventive services for special needs groups
- Strengthen primary prevention and early detection of oral lesions
- Strengthen monitoring databases
- Promote healthy diet/good nutrition/sugars reduction
- Protect the consumer and control factors related to oral health
- Strengthen networks for oral health

*Bureau of Dental Health*



*Thank you for your attention*



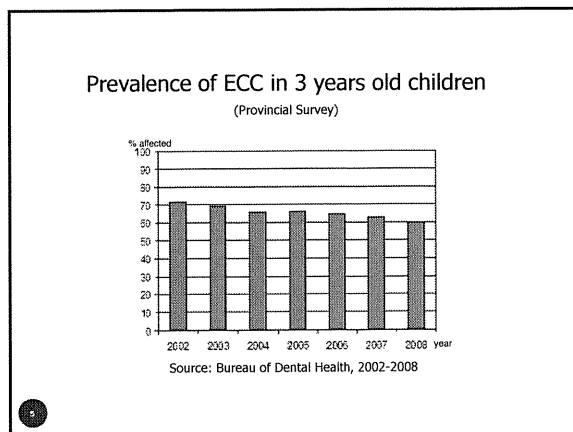
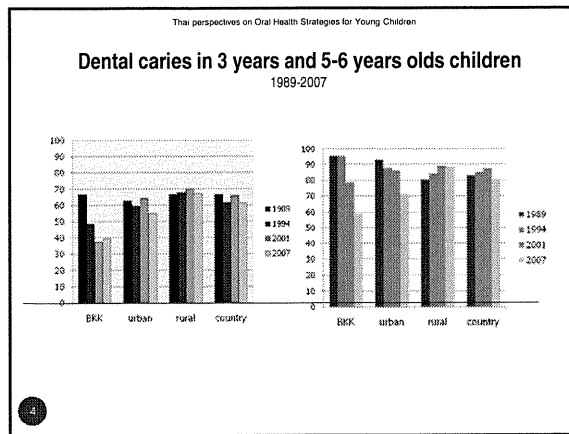
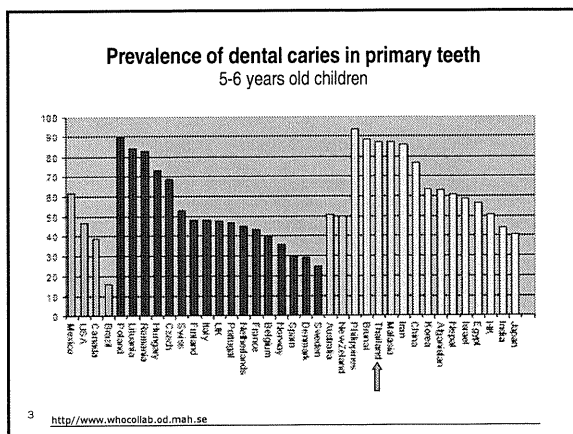
## Thai perspectives on Oral Health Strategies for Young Children

Chantana Ungchusak  
Bureau of Dental Health, Ministry of Public Health, Thailand

1

## 1. Oral health status

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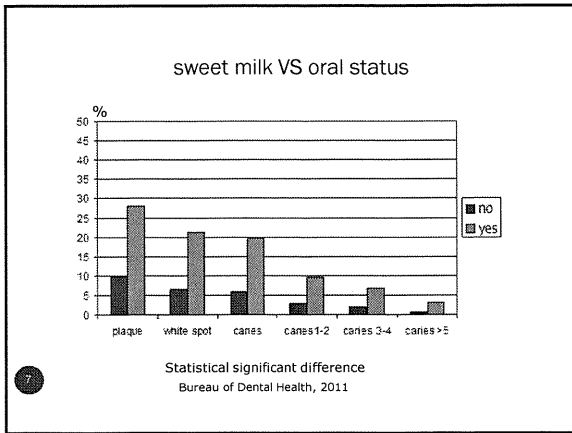
### 2. Risk behavior (0-2 years olds)

	number	%
Sweet milk	1,052	18.8
Snack 2 ≥ times/day	2,799	49.8
Brushing everyday	2,691	48.1
Use F toothpaste	2,105	37.6

Start brushing at 13 months old

Bureau of Dental Health, 2011

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### 3. ECC prevention program in Thailand

1. Clinical prevention and health education by professional
2. Population based strategy
3. Policy advocacy

### 1. Clinical Prevention and health education

#### 1.1 Integration of oral health care for pregnant women into Anti natal clinic

- Risk assessment
- Oral examination (81%)
- Plaque control
- Treatment as needed

### Dental caries among pregnant women, 2010

Age	% affected	DMF
≤15	76.9	3.92
16-20	92.0	6.13
21-25	89.7	6.27
26-30	91.0	6.41
31-35	90.1	6.83
≥36	87.5	6.56
Not specifies	90.8	6.76
Total	90.3	6.37

C Ungchusak, 2010

#### 1.2 Oral health care for young children

1. Oral examination & caries risk assessment (1 year old)
  - Plaque, white spot, caries
  - Tooth brushing behavior
2. Oral health instruction
3. Hands on training for brushing
4. Fluoride application (varnish)
5. Repeat exam every 6 months

- Risk assessment
- Oral examination 82%
- Health education 77%
- Hands on training
- Fluoride varnish 26.5%

### Oral screening recording form

name	age	Risk behavior					Oral status			Service utilization		
		Breast feed	Sweet milk	Non-sweet	Tooth brushing	F tooth paste	Plaque	White Spot	Caries	HE	F varnish	Filling

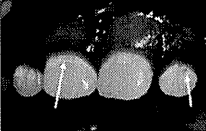
## 2. Population based strategy

### 2.1 Oral health program in daycare center & kindergarten schools

1. Brushing after lunch with fluoride toothpaste (90-97%)
2. Healthy snack , fruit at least 3 out of 5 days per week
3. Oral examination twice a year


### 2.1 Community participation: ECC surveillance system in local community

- Health volunteers are trained for oral screening
- Integrated oral activities with nutrition program




### 3. Healthy public policy no sugar in follow on formula milk

In 2004, the Network's initiated a movement to eliminate sugar out of follow on formula milk for 6 months to 3 years old . 3 years later, the Thai Ministry of Public Health declared Regulation 286 to stop using sugar as an ingredient of the milk. It helped delay children's access to sugary food. The policy initiation was so successful that the Network received a congratulation letter from the World Health Organization via Thai Health Promotion Foundation.

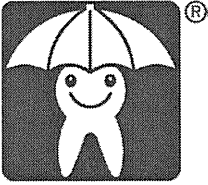


The evaluation in 2009 showed that proportion of sweet milk in domestic market decreased continuously (2,247 tons by 2 years), the consumption of sweet milk among young children also decreased from 40% to 19.2%

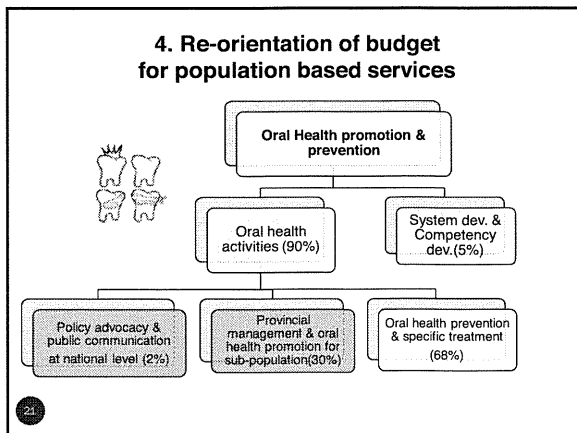


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TOOTH FRIENDLY INTERNATIONAL



20




### Global context for health promotion and public health policy


- Five key areas of HP in Ottawa Charter
  - Promoting health through public policy
  - Creating supportive environments
  - Developing personnel skills
  - Strengthening community action
  - Reorienting health services

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# Oral Health Promotion

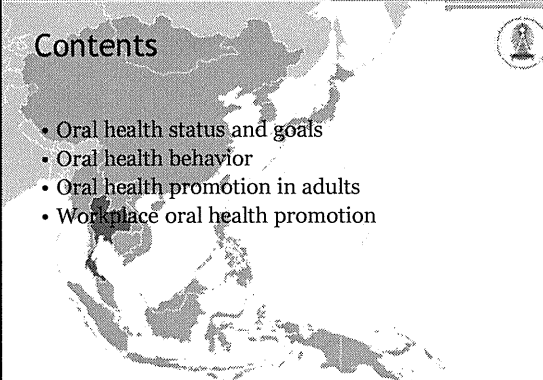


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Bangkok, Thailand

## Contents



- Oral health status and goals
- Oral health behavior
- Oral health promotion in adults
- Workplace oral health promotion

## Oral health status and goals



- National oral health survey
  - Every 5-6 years, 1984, 1989, 1994, 2001, 2007 next in 2012
  - By Ministry of Public Health
- Oral health goals
  - By the year 2000
  - By the year 2020

## OH survey in 2007: 35-44 yrs.old

- 17 provinces include Bangkok
- Stratified multi-stage sampling
- Sample size: 1,872
  - North 576
  - North East 552
  - Central 240
  - South 264
  - Bangkok 240


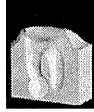
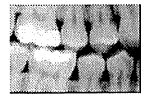
## Oral health status and goal: Periodontal health

Age	Status	2001	2007	Goal 2020
18 yrs	% healthy gingival	4	14	>40
35-44 yrs	% periodontal pocket (CPI code 3,4)	37	38	<20

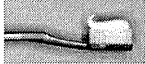
## Oral health status

- Prevalence of caries: 89.57%
- DMFT 6.74
  - Decay 1.51
  - Missing 3.92
  - Filling 1.31
- Prevalence of lost teeth people 82.84
- Average of lost teeth 3.92 teeth/person

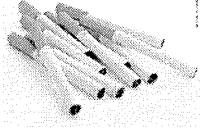
### Oral Health Behavior: Brushing

- 81.18 % use toothbrush
- 16.96 % use toothbrush+ inter-proximal cleaner
- 96.28 % brush when wake up in the morning
- 89.97% brush before go to bed
- 78.47 % use fluoride toothpaste



### Smoking behavior

- Smoking 20.9%
  - Average 10.38 cigarette/day
- Non smoking 78.1%
  - Smoke but quit 5.3%
  - Never smoke 72.8%
- Betal nut chewing 5.38%



Data from oral health survey 2007

### Dental services utilization

- 38.29% use dental services
  - Average 1.68 time/year
- Reasons to use dental services
  - 15.83% pain or sensitive
  - 12.96 % have cavity
  - 12.51% have dental calculus
- Place
  - 17.61% use in community hospital
  - 9.90% use private dentalclinic
  - 9.15% use government provincial hospital

### How we attack with this situation?

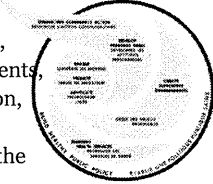
Dental Health  
Education  
for  
developing  
personal skill

Five different  
strategies  
in  
Oral Health  
Promotion

### Oral health promotion (OHP)

OHP is any planned effort to

- (1) build healthy public policies,
- (2) create supportive environments,
- (3) strengthen community action,
- (4) develop personal skills or
- (5) re-orient health services in the pursuit of oral health goals.



### In fact

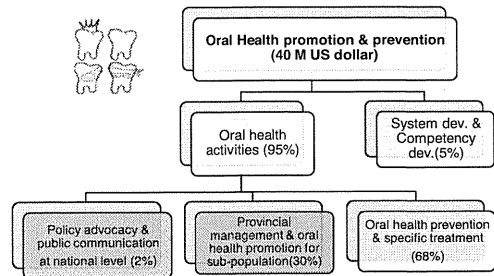
- Very few oral health promotion activity target in adult population
- Smoking control activities by Thai Health Promotion Foundation



### Strengthening community action

- Several empowerment activities in community
- Work together with community to set the priorities, making decisions, planning, implement and evaluation
- Usually oral health are integrated in general health
- Local policy in community such as to displays of confectionery at child height
- No specific on adult oral health

### Re-orientation of budget for oral health in 2011



### Building healthy public policies & Creating supportive environment: Population approach

- Toothfriendly project
- Workplace oral health promotion

### Toothfriendly project in Thailand

- Co-operative with Toothfriendly international
- Making healthy choices in candy and chewing gum
- Non-cariogenic and non-erosive product
- Establish Toothfriendly Thailand Network (TTN)
- Start on 2011



® Toothfriendly Thailand Network

### TTN working as networks

- Bureau of Dental Health, MoPH
- Dental Health Division, Bangkok Metropolitan Administrative
- Faculty of Dentistry, Chulalongkorn University
- Thai Society of Pediatric Dentistry
- Thai Society of Public Health Dentistry
- Thai Rural Dental Health Club
- Dental Auxiliary Association of Thailand

### Previous activities

- TTN meeting with Dr. Albert Bar, director of toothfriendly international and local confectionery manufacturers in Dec 2010, 13

## Previous activities

- Academic seminar for dentist on the topic of sugar alcohol in December 2010, 14



## Previous activities

- Exhibition in the annual meeting of Thai Society of Public Health Dentistry in Dec 2010, 15



## Local confectionary manufactures that interest to use Toothfriendly logo

- Cadbury Adam (Thailand): Trident
- Sino Pacific Trading (Thailand): Ricola, Smint, Lakerol (How about Mentos, Chupa Chups, Fisherman's friend?)
- The Wrigley (Thailand): Extra chewing gum
- Give Candies



## On going activities: Website

- Translate content in TI website to Thai
- Create [www.toothfriendly.in.th](http://www.toothfriendly.in.th) for communicate with Thai people and Thai professional




## Workplace OHP

- No workplace OHP establish in Thailand
- 2011 start research topic on WOHP in Lion (Thailand) Co., Ltd support by TMDU
- PhD candidate in Community Dentistry Department, Chulalongkorn University plan to develop Workplace OHP in several factories at Saraburi province.




## Focus group discussion with employee





Interview oral health behavior



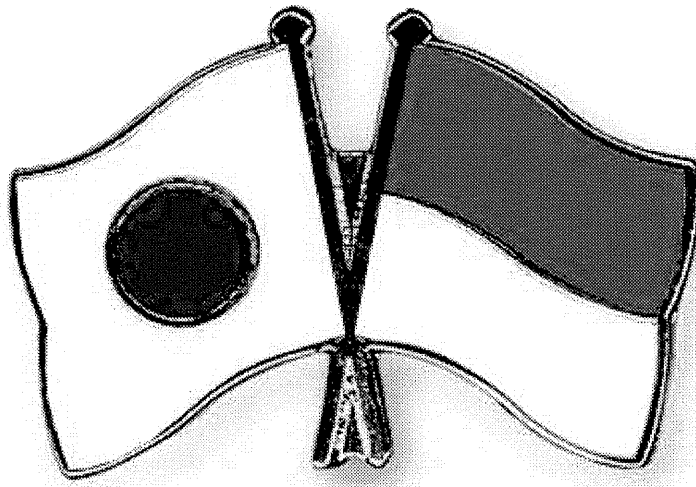
Oral examination



Thank you

**International Symposium**

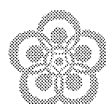
**Public Oral Health Activities in  
Indonesia and Japan**



**Date:** March 6<sup>th</sup>, 2012 (Tue), 14:00~17:00

**Venue:** Lecture room No. 4, building No.1, 8<sup>th</sup> floor

**Organizer:** Department of Oral Health Promotion  
Graduate School of Medical and Dental Sciences  
Tokyo Medical and Dental University



**東京医科歯科大学**  
TOKYO MEDICAL AND DENTAL UNIVERSITY

*This symposium is partly supported by a research grant of Ministry of Health, Labour and Welfare.*

## International Symposium

### **Public Oral Health Activities in Indonesia and Japan**

#### *Preface*

Taking the opportunity to welcome the Indonesian dental team from University of Indonesia to visit Tokyo Medical and Dental University, Japan, we are holding an international symposium on oral health.

The purposes of this symposium are to exchange information about dental education, oral health status, oral health services and oral health delivery system of Indonesia and Japan, and to evaluate effectiveness of policies of oral health services for further improvement of current situation. Evidence based oral health promotion refers to the development, implementation, and evaluation of effective programs and policies in population through application of evidence.

During the last few decades, the advancement of dental technologies, the strengthening of evidence-base and novel methods for oral health promotion and prevention have been mingled with the counter flow of growing globalization, urbanization, industrialization and inequalities that hinder the promise of desirable changes in oral health. Oral diseases such as dental caries and periodontal diseases still make significant contributions to the burden of disease in many countries. The association of oral health with general health and quality of life has also been increasingly attracting attention.

Meanwhile, an exclusive reliance on individually oriented interventions has been found to be inadequate to achieve positive population changes in oral health in these countries. The focus is moving toward greater emphasis on the social, political, cultural and environmental factors impacting on oral diseases. Therefore, effective interventions should target not just the individual but the broader context in which people live and behave in their daily lives.

In the symposium, we would like to share our experience and evidence in Indonesia and Japan, in order to challenge and achieve better oral health in both countries.

Yoko Kawaguchi, DDS, PhD  
Professor  
Department of Oral Health Promotion  
Graduate School of Medical and Dental Sciences  
Tokyo Medical and Dental University

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## Program

### Opening remarks

**Prof. Yoko Kawaguchi, DDS, PhD**

(Head of Department, Oral Health Promotion, Tokyo Medical and Dental University, Japan)

### 14:10 – 15:30 Session 1: Oral Public Health Activities in Indonesia

**Chair: Sachiko Takehara, DDS, PhD**

“Student Learning Process on Preventive and Public Health Dentistry”

**(Anton Rahardjo, DDS, MSc (PH), PhD)**

*Short discussion*

“Increasing Dental Health Care Awareness of Mothers in Decreasing Early Childhood Caries (ECC) Through Community Education Programs in Buaran Village”

**(Prof. Risqa Rina Darwita, DDS, PhD)**

*Short discussion*

“Community Empowerment as Part of The Role of Public Health Centers in Indonesia”

**(Armasastra Bahar, DDS, PhD)**

*Short discussion*

“Functional Tooth Units and Nutritional Status among Older People in Care Homes in Indonesia”

**(Melissa Adiatman, DDS, PhD)**

*Short discussion*

*Tea break*

### 15:45 - 16:45 Session 2: Oral Public Health Activities in Japan

**Chair: Sachiko Takehara, DDS, PhD**

“Dental education system in Tokyo Medical and Dental University”

**(Takashi Zaitso, DDS, PhD)**

*Short discussion*

“School-based oral health promotion programs in Japan”

**(Prof. Yoko Kawaguchi, DDS, PhD)**

*Short discussion*

“Oral function promotion activities for the elderly Japanese”

**(Masayuki Ueno, DDS, MPH, PhD)**

*Short discussion*

### Presentation of appreciations

**Prof. Yoko Kawaguchi**

(Head of Department, Oral Health Promotion, Tokyo Medical and Dental University, Japan)

### Closing remarks

**Sachiko Takehara, DDS, PhD**

(Assistant Professor, Oral Health Promotion, Tokyo Medical and Dental University, Japan)



*This symposium will be coordinated and chaired by:*

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**Sachiko Takehara, DDS, PhD**

Educational Background:

1998-2004 Faculty of Dentistry, Tokyo Medical and Dental University (TMDU)

2004-2010 Research Student at Tokyo Medical and Dental University

Qualifications:

2004 Doctor of Dental Surgery (DDS), Tokyo Medical and Dental University

2010 Doctor of Philosophy (PhD), Tokyo Medical and Dental University

Professional experience:

2009 – present Lecturer, Takasaki Dental Hygienist School

2010 Lecturer, Tokyo Medical and Dental University

2011 - present Assistant Professor, Dept. of Oral Health Promotion,  
Graduate School of Medical and Dental Sciences, TMDU

2011 – present Lecturer, Apollo Dental Hygienist School

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**Anton Rahardjo, DDS, MSc(PH), PhD**Educational Background:

1981 DDS, Faculty of Dentistry Universitas Indonesia, Jakarta, Indonesia

1994 MScPH, Health Administration & Policy, Faculty of Public Health UI, Depok, Indonesia

2004 PhD, Preventive Dentistry, Niigata University, Niigata, Japan

Research in Japan:

Relationship between bleeding on probing and periodontal disease progression in community-dwelling older adults.

**Rahardjo A**, Yoshihara A, Amarasena N, Ogawa H, Nakashima K, Miyazaki H.  
J Clin Periodontol. 2005 Nov;32(11):1129-33.

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**Student Learning Process on Preventive and Public Health Dentistry  
Faculty of Dentistry, University of Indonesia**

In early years of dental school curriculum, the students have gained knowledge and technology of basic and clinical dentistry but they have not been able to apply their knowledge and skills in the community. Therefore to work in the society as a professional dentist, they need to learn the science of community dentistry. The Faculty of Dentistry, University of Indonesia has community programs for its student with a direct approach to the community to enable them to learn and work in real settings. The goal is to achieve the standard competence outlined by the Indonesian Medical Council for dental curriculum. These competences include the goals of preparing the students to be a diagnostician for community oral health diagnosis, educator, manager, adviser and operator and organizer.

The approach that we use is by creating a working environment, by reaching the community as partners and empowers them to be able to maintain their oral health independently. The competences of practice management are obtained through an internship at the community health center. The students learn the process of planning, organizing, actuating, budgeting and controlling in providing care to the community at the community health center. The Community health center its self is a functional public health organization unit and development center which has responsibility based on its working area and provides comprehensive and integrated basic health care comprising of promotive, preventive, curative and rehabilitative care .

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**Prof. Risqa Rina Darwita, DDS, PhD**

Educational Background:

1984 DDS, Faculty of Dentistry Universitas Indonesia, Jakarta

1996 PhD, Department of Hygiene and Preventive Medicine, Hokkaido University, School of Medicine, Sapporo, Japan

Research in Japan:

Changes in brain neurotransmitters in hypothalamus related to feeding behavior in LEC rat.

RR Darwita

Hokkaido Igaku Zasshi. 1996 May;71(3):377-89.

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**Increasing Dental Health Care Awareness of Mothers in Decreasing Early Childhood Caries (ECC) Through Community Education Programs In Buaran Village**

Early Childhood Caries (ECC) is a serious problem worldwide, particularly in developing countries such as Indonesia. Previous studies concluded that behavior of children of 1.5–3 years old could be the main cause of poor dental health in the future.

**Objective:** To increase dental health care awareness of mothers in decreasing ECC prevalence. Through educating care givers or volunteers' woman in Buaran village, Tangerang by the Department of Preventive and Public Health Dentistry, University of Indonesia.

**Method:** Face-to-face interviews with the mothers, who visited *Posyandu* were conducted to assess how they sought to prevent dental caries in their children. Informed consents were signed by them prior to the interviews. The survey and the performing of programs such as training were done by dental students with supervision from the lectures. The results of dental examinations were the basis in planning programs for increasing dental health care by mother with the assistance of cadre as dental preventive assistance in *Posyandu*. Evaluation card to evaluate dental caries risk of children (KMGS) was used. Correlation of *Streptococcus mutan* transmission from mother to their child was also conducted.

**Results:** More than half of the mothers, with the average age of 25-35 years old had poor preventive behavior. Almost half had finished high school. 60% were housewives with average monthly family incomes of 306.66 USD. Maternal age, education and occupation were factors which were found to have significant associations with mothers' dietary habits for their children. Social support was also found to have significant associations with mothers' regular dental checkups. The preventive assistant could train the mothers to evaluate caries risk of their children by filling the "KMGS". Moreover, significant correlation between Mother's *Streptococcus mutan* strain/DNA with their children's *Streptococcus mutan*. The awareness of mothers to their child's dental health increased. Mother brushed their children tooth at home and also when they visited *Posyandu* and *PAUD* which was supervised by the preventive assistant.

**Conclusions:** The role of volunteers/preventive assistant is very important in increasing mother's awareness and causing the decreasing ECC of children under five year old is very important.

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**Armasastra Bahar, DDS, PhD**Educational Background:

1981 DDS, Faculty of Dentistry Universitas Indonesia, Jakarta

1995 PhD, Kyudai : Dept. of Preventive Dentistry, Kyushu University, Fukuoka, Japan

Research in Japan:

The effect of normal pulsed Nd-YAG laser irradiation on pits and fissures in human teeth.

Bahar A, Tagomori S.

Caries Res. 1994;28(6):460-7.

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**Community Empowerment as Part of The Role Of Public Health Centers in Indonesia**

Community empowerment is one of the roles of community health centers (Puskesmas) in Indonesia. The aim of empowering community is to improve Indonesian citizens' quality of live through developing oral health. These are implemented by giving them adequate informations, motivations, and skills needed for applying independent oral health care. The implementations are based on the communitie's characteristics such as risk factor in under-five year old children, pregnant mothers, school age children and elderly people. These communities are Integrated Health Post for Children and expecting mothers (Posyandu), Integrated Health Post for the Elderly (Posbindu) and School Based Dental Health Programs (UKGS). Oral health promotion through community empowerment projects was performed based on specific intervention prior to the arising problem. The result showed that the dental health projects were sustainable, continuously creating great enthusiasm and increasing utilization of dental health services.