

# Formulating Oral Health Strategy for South-East Asia

*Report of a Regional Consultation  
Chiang Mai, Thailand, 28-31 October 2008*



**World Health  
Organization**

**Regional Office for South-East Asia**



SEA-NCD-81  
Distribution: General

# Formulating Oral Health Strategy for South-East Asia

*Report of a Regional Consultation  
Chiang Mai, Thailand, 28-31 October 2008*



© **World Health Organization 2009**

All rights reserved.

Requests for publications, or for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – can be obtained from Publishing and Sales, World Health Organization, Regional Office for South-East Asia, Indraprastha Estate, Mahatma Gandhi Marg, New Delhi 110 002, India (fax: +91 11 23370197; e-mail: [publications@searo.who.int](mailto:publications@searo.who.int)).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

This publication does not necessarily represent the decisions or policies of the World Health Organization.

Printed in India

# Contents

	<i>Page</i>
1. Introduction .....	1
2. Objectives.....	2
3. Organization of the meeting.....	2
4. Opportunities for oral health promotion and integrated disease prevention ...	3
4.1 Integrated prevention of major NCDs.....	3
4.2 Oral health: global and regional perspectives.....	3
4.3 Opportunities for oral health promotion and integrated disease prevention .....	4
4.4 Promoting healthy nutrition for oral health .....	4
5. Oral health in the South-East Asia Region .....	5
5.1 Country presentations.....	5
5.2 Situational analysis in the Region.....	11
6. Demonstration projects for oral health .....	14
7. Formulating Oral Health Strategy for South-East Asia Region .....	14
8. Conclusion and recommendations .....	17
8.1 Conclusions.....	17
8.2 Recommendations.....	18

## Annexes

1. Message from Dr Samlee Plianbangchang Regional Director, WHO, South-East Asia Region.....	20
2. Programme .....	22
3. List of participants .....	24



# 1. Introduction

Oral diseases such as dental caries, periodontal diseases, tooth loss and oral cancer have emerged as a major public health problem in the Member countries of the South-East Asia (SEA) Region of WHO. In view of the prevalence of risk factors and inadequate access to and affordability of preventive and curative oral health services oral diseases have a growing impact on the health and wellbeing of people in the Region and in particular on vulnerable and marginalized groups of population.

The Sixtieth World Health Assembly through its resolution WHA 60.17 on oral health - an action plan for promotion and integrated disease prevention - acknowledged the intrinsic link between oral health, general health and quality of life and emphasized the need to incorporate programmes for promotion of oral health and prevention of oral diseases into integrated prevention and control of chronic diseases.

The resolutions of the WHO Regional Committee for South-East Asia (SEA/RC6/R6, SEA/RC8/R9 and SEA/RC9/R18) paved the way for stronger national and inter-country action and WHO technical support in the area of prevention and control of chronic diseases including oral health.

The SEA oral health strategy is aimed at guiding a coordinated, multisectoral, public health action of Member States and increasing commitment towards the promotion of oral health and the prevention and control of oral diseases. The strategy is in line with the Regional Framework for Prevention and Control of Noncommunicable Diseases that emphasizes, among others, the role of major risk factors including unhealthy diets, use of tobacco and excessive consumption of alcohol and the need to take effective action on them at the population, community, family and individual levels.

The Regional Consultation held at Chiang Mai, Thailand, on 28-31 October 2008 deliberated on the current situation of oral health policies and the strategies required for setting up public health-oriented action including strengthening of oral health workforce and infrastructure in the SEA Region. The consultation provided important inputs towards formulation of the Oral Health Strategy for the SEA Region.

## **2. Objectives**

The general objective of the consultation was to promote public oral health approaches in the SEA Region.

There following were the specific objectives of the consultation:

- To review national ORH situation, programmes and plans in Member States of the SEA Region; and
- To formulate a regional oral health strategy.

## **3. Organization of the meeting**

The outline of the regional oral health strategy drafted in early 2007 was discussed at the meeting of the SEA Network for Noncommunicable Diseases Prevention and Control (SEANET-NCD) in October 2007. It has been further elaborated by the WHO Collaborating Centre for Promoting Community-based Oral Health and shared with Member States for their inputs and comments prior to the reported consultation.

At the opening session, Dr Jerzy Leowski, Regional Adviser, Noncommunicable Diseases (RA-NCD) delivered a message from Dr Samlee Plianbangchang, Regional Director, WHO, SEA Region. A prerecorded inaugural address of Dr Narongsakdi Aungkasuvapala, Director-General, Department of Health, Ministry of Public Health, Thailand, was presented. Dr Sunsanee Rajchagool, Director, Intercountry Centre for Oral Health (ICOH), Head, WHO Collaborating Centre for Promoting Community-based Oral Health, Chiang Mai, welcomed the participants on behalf of the local organizers.

Mr Sutha Jienmaneechotchai, Director, Dental Health Division, Department of Health, Ministry of Public Health, Thailand, was elected as the Chair and Ms Shalini Prasad, Joint Secretary, Ministry of Health and Family Welfare, Government of India, was elected Co- Chairperson for the meeting. Dr Ko Ko Maw, Deputy Director and Chief (Oral Health), Department of Health, Ministry of Health, Myanmar; Dr Praveen Misra, Chief Consultant, Bir Hospital, Kathmandu, Nepal; Dr Sunsanee Rajchagool, Director, ICOH, Chiang Mai, Thailand; and Dr Hari Parkash, Temporary Adviser, WHO SEA Regional Office were elected as the rapporteurs.

The meeting was attended by representatives of national oral health programmes from 10 countries of the SEA Region, WHO staff from select country offices, SEA Regional Office and WHO Headquarters. Annex 3 provides the list of participants.

There were plenary presentations on integrated prevention and control of noncommunicable diseases (NCDs), global and regional updates on oral health programmes, diet and oral health, tobacco induced oral diseases and oral health promotion. Representatives of the 10 countries of the SEA Region shared information on oral health status and on national oral health policies, strategies, plans and programmes. The draft oral health strategy was presented and discussed at plenary and working group sessions. At a plenary session the participants developed a consensus on the conclusions and recommendations of the consultation. The local host, ICOH, arranged a half-day trip to select oral health and NCD prevention projects.

## **4. Opportunities for oral health promotion and integrated disease prevention**

### **4.1 Integrated prevention of major NCDs**

Dr J Leowski, RA-NCD, gave a presentation on the major NCDs and epidemiological trends. He provided an in depth view of the underlying socioeconomic, cultural, and environmental determinants, and on the common modifiable and non-modifiable risk factors, leading to major NCDs. He deliberated on the Global Strategy and Regional Framework for Prevention and Control of NCDs. WHO STEPS, a tool for surveillance of major NCD risk factors, was presented in the context of recent data collected in the Region on major risk factors for NCDs including oral diseases. He also presented an overview of the regional NCD Network (SEANET-NCD) and its importance in sharing information, experience and resources.

### **4.2 Oral health: global and regional perspectives**

Dr P E Petersen, Oral Health Programme, WHO HQ deliberated on the current burden of oral disease at the global and regional levels, the strategies for oral health promotion and integrated disease prevention in the 21st

century as well as the appropriate response of countries to new challenges in health promotion and oral disease prevention. He also highlighted the principles for action on oral health which included common risk factors approaches, appropriate settings for health promotion, addressing target groups, proper orientation of oral health systems that emphasize on prevention and health promotion, evaluation of progress by developing health information systems and evidence based public health practice as well as research on oral health with focus on developing countries. Dr Petersen also addressed the priority action areas for global oral health, emphasized on the role of primary health care, which is more important than ever and the opportunities available for national oral health promotion.

### **4.3 Opportunities for oral health promotion and integrated disease prevention**

Dr Davison Munodawafa, Regional Adviser, Health Promotion, WHO SEA Regional Office, discussed how oral health promotion could be developed to be an integral part of the regional strategy for health promotion. He explained on how best the Bangkok Charter for Health Promotion could be utilized in oral health promotion in the Region. He discussed the applicability of major regional health promotion strategic directions in the context of formulating the regional oral health strategy including infrastructure development for coordination and management, capacity building, regulatory and legislative action, partnership and networking, social mobilization and advocacy, health promotion financing and management of change.

### **4.4 Promoting healthy nutrition for oral health**

Dr Suttalak Smitasiri, Division of Communication and Behavioural Science, Institute of Nutrition, Mahidol University, Thailand presented on a community based project titled "Let's Feed Our Kids", an initiative on province-wide food and nutrition development for school children in Thailand. She deliberated on the purpose and objectives of the project and provided examples of activities undertaken with focus on volunteer-based actions and their outcomes. Dr Suttalak enunciated the changes in the quality of school lunches in Si-Sa-Ket Province (2004-2007) brought about by the project and a decrease in the prevalence of underweight and

overweight and obese schoolchildren in the province. She stressed on the importance of social marketing in the implementation of community based programmes.

## **5. Oral health in the South-East Asia Region**

### **5.1 Country presentations**

Representatives of Member States, attending the consultation delivered plenary presentations on national oral health challenges, and on the planning and implementation of national oral health policies, strategies and programmes. A short summary of the presentations are given below.

#### ***Bangladesh***

There is no national-level information about the distribution of oral diseases in Bangladesh. Only 1591 dental health technologists are available in the country and no primary oral health workers or oral hygienists. There is need to develop a curriculum for primary oral health care workers and oral hygienists.

Bangladesh envisages providing comprehensive oral health care and research by involving dental surgeons and proposes to develop a national oral health strategy through a central cell in the office of the Director General of Health Services under the Ministry of Health and Population Welfare, headed by a qualified dentist with a teaching and research background. The strategy will cover oral health prevention, promotion and intervention through models involving a varied workforce such as trained school teachers, dental hygienists, dental technologists, primary health care workers and dental surgeons.

#### ***Bhutan***

Health care services in Bhutan are free for its citizens. However, the considerable challenges remain in the area of oral health. An oral health programme was initiated with WHO assistance in 1987 under the NCD Section of the Department of Public Health assisted by WHO. A number of dental check-ups in the schools and communities have been carried out. In

the absence of clear directives and policies, the effectiveness of these programme has not been systematically evaluated the prevalence of diseases has not been established and services have not been rendered uniformly. The number of dental surgeons in the country is very low (only seven), creating a huge gap in the provision of qualified oral health services. Dental surgeons should be involved in the planning and implementation of oral health programmes. There is a need to ensure that oral health is closely linked to overall health care, and follow the principles of public health. This requires formulation of an oral health policy which will be an integral part of the National Health Policy. It has been proposed that the roadmap for the oral health programme for Bhutan should focus on prevention through infrastructure building, proper oral health system development, strengthening capacity and creating coalitions with other stakeholders. Appropriate managerial and funding mechanisms should be put in place to plan and execute oral health activities at the national level.

### ***India***

The current oral health system in India is clinically oriented. A large rural population still needs to be attended to with respect to essential oral health services. The Ministry of Health and Family Welfare, Government of India is taking steps to reduce oral disease burden and integrate oral health with NCDs that share common risk factors. Considering that oral health is an integral component of general health and that oral diseases are largely preventable, the Government of India has proposed the National Oral Health Care Programme under the centrally sponsored XIth Five-Year Plan. There is a structured referral system involving primary health centres, district hospitals and tertiary health care institutions. India has a reasonable health infrastructure and manpower. Large numbers of dental institutions are provide education to both undergraduate and postgraduate students. Despite a considerable number of dental surgeons in India there is a huge gap in oral health services between urban and rural settings. Accumulation of dental surgeons in the urban areas leaves the rural population largely unattended for even basic oral health care services. The country needs an oral health policy that can be integrated with the National Health Policy. Judicious planning for the development of an oral health workforce (dental surgeons, dental hygienist, etc.) and its involvement in the implementation of proper preventive, promotive and curative strategies is needed.

### **Indonesia**

In Indonesia oral health is included in the general health plan and health promotion programme. Children under five, pregnant women, children of school going age the elderly are given priority. There is a need to strengthen the involvement of communities, NGO's, professional organizations and the private sector to enhance cross-sectoral collaboration as well as laws and regulations for the prevention of oral diseases and promotion of oral health. This could be achieved among others through multisectoral action involving government, industry and media to limit the promotion and advertising of foods and beverages that are harmful to oral health. The dental health referral system will be continuously assessed to improve its efficiency. It is also proposed to develop family dentistry care. There is a need to establish an oral health information system, strengthen dental health education and promote community participation. The oral health service delivery will benefit from the involvement of professional dental nurses, NGOs and private sector. It is proposed to explore the opportunities for providing subsidized evidence-based preventive and curative dental services through insurance schemes.

### **Maldives**

There is no oral health policy in place in the Maldives and no specific budget allocated for oral health care. The dental services provided in the country are mostly curative and the rural population is largely unattended to regard to basic oral health care because dental surgeons are concentrated in the capital. The availability of emergency oral health care is limited and also not free. Primary health care workers are present in most islands and are attached to health posts/health centres. The diploma courses offered for the primary health care workers have a dental component in the curriculum; however the knowledge they acquire is minimal. Training the primary health care workforce to provide essential curative services is an excellent concept. However it would be more beneficial to train them to promote oral health awareness and education in the community. Oral screening is conducted under the School Health Programme. However its effectiveness has not been systematically evaluated. There is high prevalence of dental caries and periodontal disease in the Maldives. The focus of the oral health programme should be on oral health promotion, prevention and provision of emergency care to the entire population. There is a need to ensure that oral health is closely linked to overall health care and follows the principles of public

health. These require formulation of an oral health policy for the Maldives and integrating with the Health Master Plan and National Health Policy.

### ***Myanmar***

Social dentistry needs to be strengthened in Myanmar - commencing from dental education, which is still clinically and individually oriented. There are an insufficient number of public health dentists to plan and implement community oral health programmes. The University of Public Health plans is going to address this gap through enrolment of dentists in the social dentistry oriented Master of Public Health programme. As regards the oral health workforce, 545 dental professionals in the public sector are assisted by 4800 basic health workers trained in primary oral health care to cover a population of 57 million population. The emphasis of the national oral health strategy in Myanmar is on: (i) strengthening primary oral health care services for rural and remote communities (the focus is on health promotion and education, disease prevention, and provision of basic and emergency oral health care); (ii) the fluoride project (including prevention of dental fluorosis in endemic areas and promotion of affordable fluoride toothpaste); and (iii) delivery of quality routine oral health care services by hospitals, urban health centres and school health teams.

### ***Nepal***

There is no dental council to regulate the education and planning for oral health workforce development in Nepal nor there is a specific budget allocated for oral health care and research. The oral health workforce is inequitably distributed as dentists are reluctant to work in rural areas. Intersectoral coordination is rather weak and there is no monitoring and evaluation system in place.

The Government of Nepal has formulated a National Strategic Plan for Oral Health. The document was developed by the National Oral Health Task Force and its committees. The priority national-level strategies to improve oral health for the nation include strengthening oral health education, prioritizing oral health promotion approaches (such as fluoridation), prevention of common oral diseases and conditions, incorporation of quality assurance mechanisms and development of infrastructure for oral health at all levels.

### ***Sri Lanka***

Curative services dominate oral health in Sri Lanka and there is no oral health policy in place in the country. The national oral health programme with specific objectives, outputs and outcomes is guided by the Health Master Plan. General health promotion (through health promoting schools, etc.), prevention of oral diseases (through addressing common risk factors) and making basic oral health services accessible to communities through primary health care approaches are the priority strategies of this community centred national programme. Opportunities for setting up of a sound referral system and good surveillance are being explored in the area of oral health. The oral health workforce is concentrated in cities, and in particular in tertiary care centres. The dental auxiliary personnel in Sri Lanka consist of dental therapist who are based in schools and provide oral health care to school children.

### ***Thailand***

Thailand has developed oral health goals to be achieved by the year 2020. They envisage improvement in the oral health status of people (including social dimension) and strengthening of the oral health delivery system. The Dental Health Division, Ministry of Public Health (MoPH), Thailand conducts regular national oral health surveys (NOHS) every five years. In addition to documenting the current oral health situation these surveys measure the progress made in the achievement of specific national oral health targets which include, among others, (i) less than 50% prevalence of dental caries among 3-year-old children; (ii) retention of all permanent first molars in 100% of 12-year-old children; (iii) prevalence of gingivitis in teenagers not exceeding 60%, and (iv) having at least 20 functional teeth in 80% of the elderly. The sixth NOHS conducted in 2007 revealed that the prevalence of dental caries in 3-year-old children was 61.4% and among 5-year-olds it was 80.6%.

Oral health promotion is implemented in Thailand through packages of interventions targeting specific age groups and through consumer protection and environmental control schemes. The former scheme includes health education and prophylaxis for pregnant women, oral screening and provision of the first toothbrush for children aged 9-12 months and teeth brushing programme in kindergartens. In schools pit and fissure sealant is

provided for first grade students. Also oral screenings and teeth-brushing drills are conducted and the consumption of sugary snacks and carbonated drink is controlled. The oral health programme for the elderly focuses on the promotion of self care and delivery of services aimed at prevention of tooth loss. Dental prostheses are provided for senior citizen with edentulous arches. Within the consumer protection and environmental control scheme, standards have been set for oral care products such as toothbrushes, fluoride concentration in toothpaste (1000 ppm) and in drinking water (= 0.7 mg/L). Moreover, a fluorosis mitigation programme is being developed in areas where there is excess of fluoride in drinking water. Dentists are also encouraged to actively contribute to towards control of tobacco consumption, including smoking cessation efforts.

### ***Timor-Leste***

Oral diseases remain a significant problem in Timor Leste. There is a high prevalence of dental caries and periodontal diseases. Treatment interventions alone will not reduce the burden of oral diseases in the country. As treatment of oral diseases is beyond the capacity of the existing oral health workforce and the budget of the Ministry of Health the current response focuses on oral health promotion, prevention of oral diseases, and provision of emergency care throughout the country.

The oral health strategy of Timor Leste is based on the principles of the Ottawa Charter for Health Promotion and is ingrained in a comprehensive primary health care framework (CPHC). The main thrust of the strategy is to provide sustainable and affordable oral health services. The priorities include cost-effective prevention, oral health promotion and interventions through primary health care approaches. The strategic framework for the National Oral Health Programme specifies the following strategies: (i) oral health protection (ii) promotion and prevention (iii) integration of oral health into general health (iv) support for service delivery (v) personal dental care (vi) research (vii) human resource development (viii) institutional approach (ix) strategic alliances, and (x) monitoring and evaluation.

## 5.2 Situational analysis in the Region

Prior to the consultation the participants were requested to share country-specific data using a structured questionnaire which was aimed at collecting information on oral health service systems, oral health care workforces, coverage of oral health services, health situation in respect of major oral diseases and on oral health information systems. This section provides a preliminary analysis of select information collected through the questionnaire. The purpose of this analysis is to outline the situation regarding oral diseases and the capacity of health systems in the Region. More systematic efforts are required to institute comprehensive oral health surveillance mechanism in the Region.

**Table 1: Select oral health indicators in the countries of SEA Region**

Country	Caries free at age 6 (%)	DMFT at age 12 %	Untreated decay at age 12	CPI score 3		CPI score 4		Edentulousness (%)		Mean no. of missing teeth
				35-44 yrs	65-74 yrs	35-44 yrs	65-74 yrs	35-44 yrs	65-74 yrs	35-44 yrs
Bangladesh	NR	2.2	NR	NR	NR	NR	NR	NR	NR	NR
India*	48.1	1.8	94.4	11.6	21.4	7.8	18.1	0.5	17.6	2.9
Indonesia	14	0.9	29.8	NR	NR	NR	NR	0.4	23.6	NR
Maldives	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Myanmar	NR	NR	NR	2.4	NR	1.6	NR	NR	NR	NR
Nepal	42.5	0.5	25.6	43.8	34.3	21.6	42.8	NR	NR	0.8
Sri Lanka	37.7	0.9	85.7	14.6	16.0	2.3	3.8	0.1	21.8	5.7
Thailand	19.4**	1.6	54.2	22.1	15.5	15.4	68.8	NR	10.5	3.9
Timor- Leste	28	1.8	66.3	22.5	28.4	6.2	14.4	0.6	25	0.4

CPI - Community Periodontal Index; CPI score 3 - pockets 4-5 mm; CPI score 4 - pockets 6 mm or more; DMFT - Decayed, Missing and Filled Teeth; NR - not reported (data not available)

Source: information provided by the national focal points attending the consultation;

\* - for India: R K Bali, V B Mathur, P P Talwar, B Channa. National Oral Health Survey and Fluoride mapping 2002-2003. Dental Council of India, 2004

\*\* - for Thailand: caries free at age 5

The prevalence of major oral diseases in countries of the SEA Region that shared the data at the time of the consultation is considerably high. The proportion of caries free children at age 6 years is higher in India, Nepal and Sri Lanka as compared to Indonesia, Thailand and Timor-Leste. In countries

that shared data, the number of decayed, missing and filled teeth (DMFT score) at 12 years is within a low to moderate range, whereas the proportion of children with untreated decay is high. The periodontal health of people in countries of the SEA Region is poor, with the Community Periodontal Index (CPI) score of 3 (i.e. pockets 4-5 mm) in about 20% of the population indicating the need for professional treatment. The percentage of edentulousness in the 65-74 year age group is high (10-25%). In South-East Asia, cancer of the oral cavity ranks among the three most common types of cancer. The high incidence rates relate directly to risk behaviour such as smoking, use of smokeless tobacco and alcohol consumption.

Table 2 shows the coverage of populations in the SEA Region with select oral health care services. In Sri Lanka emergency dental care is available to all elderly and adults while other countries report lesser coverage. Use of fluoride containing toothpaste is between 70 and 100% in the Region. Most countries have good coverage of oral health education for prevention of oral diseases in school going children.

**Table 2: Coverage (%) of Oral Health Care Services in Select Countries of SEA Region**

	Indonesia	Maldives	Myanmar	Nepal	Sri Lanka	Thailand	Timor-Leste
Regular Oral Examinations*	37.5	NR	73	2	50	80	10-20
Curative Services*	22.1	NR	NR	20	60	45	20-30
Oral Health Education*	100	NR	NR	60	98	100	10-20
Emergency Care - Adults	NR	NR	35	25-30	100	NR	10-20
Emergency Care – Elderly	NR	NR	34.5	25-30	100	NR	10-20
Systematic Care - Adults	NR	NR	NR	5-10	NR	NR	10
Systematic Care – Elderly	NR	NR	NR	5-10	NR	NR	10
Fluoride Toothpaste use	100	100	100	90	95	80	71

Source – information provided by the national oral health focal points attending the consultation

\* - in 12-years-old school children; NR - not reported (data not available)

Tables 3 and 4 present the status of oral health workforce in countries of the SEA Region. While a majority of dental professionals in the Region work in the private sector in Bhutan, Sri Lanka and Timor-Leste dentists operate predominately in the public domain. The number of chair-side assistants, hygienists and lab technicians is low in the Region with the exception of Indonesia and Thailand, which that report a considerable number of dental auxiliaries.

**Table 3: Dentists in select countries of SEA Region**

Country	No. of dentists	Dentist/ population ratio	% working in			
			Public service	Private practice	Dental schools	Other sectors
Bangladesh	3,000	1 : 51,182	21	64	11	4
Bhutan	7	1 : 112,000	100	0	0	0
India*	78,096	1:30,000	3.8	NR	14.3	NR
Indonesia	17,856	1 : 12,257	21	NR	11	NR
Maldives	30	1 : 10,000	50	50	0	0
Myanmar	1,648	1 : 34,000	33	57	10	0
Nepal	705	1:37,485	6	90	10	4
Sri Lanka	1,700	1 : 11,764	62	41**	4	4
Thailand		1 : 6,734	33.9	53.4	9.2	3.5
Timor Leste	6	1 : 166,667	100	50**	0	0

Source: information provided by the national focal points attending the consultation;

\* - for India: Central Bureau of Health Intelligence, India (<http://www.cbhidghs.nic.in/>)

\*\* - part-time; NR - not reported (data not available)

**Table 4: Auxiliary Oral Health Workforce in Select Countries of SEA Region (No.)**

Country	Chair side assistants	Hygienists	Therapists	Lab technicians
Bangladesh	0	0	0	1,591
Bhutan	2	40	0	22
India	NR	3,000	NR	5,000
Indonesia	15,126	NR	NR	3,223
Maldives	36	2	0	4
Myanmar	12	NR	NR	10
Nepal	150	300	7	NR
Sri Lanka	30-40	0	400	30
Thailand	1,770	NR	3,996	97
Timor Leste	0	0	28	0

NR - not reported (data not available)

Source: information provided by the national focal points attending the consultation;

\* - for India: Tandon S.: The Global Dental Workforce: Issues and Challenges. J Dent Educ. 2004;68: 28-33

## **6. Demonstration projects for oral health**

The participants of the consultation visited a community-based project at Banglang, Lamphun District. The field trip was organized by ICOH, the local host of the consultation. The purpose was to demonstrate a health promotion (including oral health promotion) action through the involvement of the local community and local governance. The delegates were taken to the several sites to study present community actions designed for specific population groups (children, elderly, women). The demonstration included promotion of healthy lifestyle in the community, a safe drinking water project and an oral health promotion programme for pre-school children. A visit was also arranged to the local health post where basic health services including checking blood pressure, measuring weight etc is done; basic medication is given and health education provided by village health volunteers. A register of the people attending the facility on a daily basis is maintained. A question and comments session was arranged by the Sub-district Administrative Organization (SAO) which was attended, among others, by the Chairmen of the SAO Executive Board and SAO Council. They provided the opportunity for a detailed discussion on local experiences in investing in health promotion and diseases prevention at the community level. In the afternoon, a session was arranged at ICOH to discuss the role of demonstration programmes in generating evidence and supporting oral health policy formulation. Participants of the consultation shared national experiences in implementing public oral health programmes and community-based oral health promotion projects. It was reiterated that such demonstration programmes should involve the community, be accessible, self sustainable and cost effective.

## **7. Formulating Oral Health Strategy for South-East Asia Region**

An outline of the oral health strategy for the SEA Region was developed by ICOH following initial discussions at the SEANET-NCD meeting on "Scaling up prevention and control of NCDs", held in Phuket, Thailand in October 2007. Its document was circulated to Member countries and participants of the consultation prior to the meeting for further review and comments. In order to work out a broad consensus on the format, structure and content of the strategy three working groups were formed. The working groups had a

brainstorming session and the outcomes of their discussion were subsequently presented and further discussed at plenary.

The working groups reiterated that as the causes of oral diseases are primarily rooted in poor socioeconomic and physical environments, unhealthy lifestyles and oral health related behaviour accordingly the action towards improvement of oral health should be directed towards modification of unhealthy environments and behaviours. The groups also suggested that action needs to be taken at multiple levels and by multiple stakeholders. Individuals, communities and societies need to be empowered and provided with appropriate means to take effective and efficient actions.

A broad agreement on the vision, goal, objectives and guiding principles of the regional oral health strategy was reached. The broad strategies proposed during the group-work sessions included (i) conducting situational analyses, (ii) advocacy, (iii) oral health promotion and prevention, (iv) capacity building, (v) provision of basic oral health services, (vi) promoting of oral health related research, (vii) monitoring and evaluation, and (viii) multisectoral coordination and networking. The following five objectives of the strategy were discussed:

**(1) *To set up directions for public oral health-oriented action in the SEA Region***

The recent remarkable technological progress in dentistry is not accompanied by an overall improvement in the oral health status in the Region. In fact the economic growth and oral health status, particularly among the low-income groups of the population have become inversely related. Training of oral health professionals is increasingly focused on the application of advanced technologies. This inflates the aspirations of the professionals but limits their public health accountability. As a result, there is a growing mismatch in the Region between the supply of expensive, advanced oral health interventions by highly qualified oral health personnel and the popular demand for essential, affordable oral health services. Clustering of oral health professionals in urban agglomerations leads to particularly poor accessibility of services in rural and remote areas. To meet the legitimate oral health needs of the people there is a need to develop oral health care systems oriented towards the promotion of health and prevention of oral diseases in accordance with the principles of the primary health care approach.

**(2) To facilitate the development and strengthening of national oral health policies and formulation of action plans for community-oriented oral health programmes**

Initiatives for the prevention of oral diseases including promotion of regular brushing of teeth, application of pit and fissure sealants, use of fluoride in the form of fluoridated toothpaste, fluoride mouth rinse, fluoride varnish and fluoride supplements were introduced in several countries of the Region such as India, Indonesia, Nepal and Thailand. The evaluation of these programmes revealed their dependence on western technology and limited sustainability by communities in the absence of continuous governmental support. The limited success of these projects could be attributed to their clinical focus and reliance on governmental implementation. Against this backdrop the participants were of opinion that there was a need to strengthen primary oral health care and to frame policies and strategies that would pave the way for public health and community-oriented oral health programmes.

**(3) To guide the advancement of programmes for oral health promotion and for prevention of priority oral diseases at the national, sub-national and community levels**

Current oral health care efforts and research address the curative aspects while neglecting the prevention of oral diseases and promotion of oral health. The development and implementation of comprehensive and efficient oral health programmes aimed at achieving specific oral health goals determined by community needs require multisectoral collaboration and involvement of oral health and public health professionals and communities.

**(4) To promote equitable access to essential oral health care services**

Primary oral health care approach aims to provide sustainable oral health interventions at the local level. Accordingly the community forms the basis for oral health promotion, including development of a physical environment conducive to oral health, promoting healthy lifestyles and self care. With a shortage of oral health workforce in the Region primary health-care workers assume an important role in the prevention and early detection of oral diseases, emergency oral care and pain relief, and provision of simple

treatment. The referral level at which care is offered by oral health care personnel is provided from centrally situated oral health services. With oral health promotion and effective oral disease prevention in place, provision of essential oral health care by primary health care workforce at the community level may reduce the demand for specialized oral health care services.

**(5) *To strengthen the capacity of human resources as relevant to oral health promotion, prevention of oral diseases, and provision of curative services***

Implementation of strategies based on oral health promotion and prevention of oral diseases requires adjustments in the composition and competencies of the oral health workforce. The participants were of the opinion that training should focus on three principal categories of oral health personnel: (i) primary health care workers, (ii) dental auxiliaries, and (iii) dentists. In countries of the SEA Region there is an urgent need to strengthen the capacity of primary health care workers through training in essential oral health care. The training of dentists and dental auxiliaries should impart knowledge and skills required for conducting both field and clinical work and to guide, supervise and support primary health care workers. Use of modern low-cost learning techniques and methods including distant learning should be encouraged. Continuing education of oral health care personnel needs to be organized to update and upgrade their knowledge and skills.

At the conclusion of the session the participants of the meeting agreed that a small group comprising of Dr Parkash, Dr Sunsanee and Dr Misra, Dr Petersen and Dr Leowski would be given the responsibility of preparing the final draft, which would further be circulated to Member States for final comments and inputs.

## **8. Conclusion and recommendations**

### **8.1 Conclusions**

The participants of the Regional Consultation on “Formulating an Oral Health Strategy for South-East Asia” deliberated upon the issues related to the current oral health situation, challenges to oral health promotion and integrated disease prevention, development or modification of national oral

health policies and national programme development and implementation in Member countries of the Region.

The meeting reviewed the draft Regional Oral Health Strategy and provided guidance on further revision of the same in terms of structure and content.

## **8.2 Recommendations**

The meeting formulated the following recommendations for Member countries and WHO.

Member countries should:

- (1) conduct a situational analysis with regard to the magnitude of the oral disease burden;
- (2) ensure that oral health is appropriately reflected in national health policies;
- (3) develop/strengthen plans and programmes for the promotion of oral health and prevention of oral diseases;
- (4) integrate oral health programmes with other relevant health programmes around common determinants of health and risk factors;
- (5) adopt multisectoral, multidisciplinary and multilevel approaches to oral health promotion and oral disease prevention;
- (6) strengthen infrastructure for oral health promotion, prevention of oral diseases and equitable delivery of essential curative services based on the principles of the primary health care approach;
- (7) strengthen the capacity and capability of the oral health workforce;
- (8) establish surveillance mechanisms for oral health and integrate them into national health information systems;
- (9) ensure regular monitoring and evaluation of oral health programmes; and
- (10) support operational research in the area of oral health promotion and prevention and control of oral diseases.

WHO should:

- (1) redraft the regional strategy according to the inputs of the regional consultation;
- (2) finalize the regional strategy in consultation with Member States;
- (3) provide technical assistance to countries in policy development/adjustment for oral health and in implementing national oral health programmes;
- (4) facilitate sharing of evidence and experience among Member States in the area of oral health; and
- (5) assist in mobilizing resources for the development and implementation of national policies, plans and programmes aimed at strengthening oral health promotion and integrated disease prevention.

## **Annex 1**

### **Message from Dr Samlee Plianbangchang Regional Director, WHO, South-East Asia Region**

*(delivered by Dr J Leowski, Regional Adviser, Noncommunicable Diseases, WHO/SEARO)*

Oral diseases such as dental caries, periodontal diseases, tooth loss and oral cancer represent an important public health problem in the WHO South-East Asia Region. The greatest burden of oral diseases lies on disadvantaged populations and is particularly high among the elderly.

The current pattern of oral diseases in the Region is strongly linked to known and modifiable socioeconomic determinants. Unhealthy behaviours such as tobacco use and excessive consumption of alcohol and sugar are among the roots of major oral diseases. Hence, prevention and control of oral diseases has multiple programmatic and operational commonalities with other health areas such as health promotion and noncommunicable diseases. Action to prevent these diseases should be directed towards modification of unhealthy environments and behaviours and needs to involve multiple stakeholders. Individuals, communities and the society need to be empowered to take effective and efficient actions.

Although considerable technological advances have been noted in different fields of dentistry, limited progress or even deterioration is observed in the oral health status of the populations in Member countries of South-East Asia, especially among low-income groups. Most current oral health systems in the Region are based on private dental practitioners, leaving a majority of people outside the reach of the corpus of systematic oral health care. Reaching the unreached requires community involvement and broad introduction of simple low-cost interventions with full utilization of primary health care, including a multipurpose health workforce.

The current emphasis on curative dentistry is to be appropriately balanced with oral health promotion and oral diseases prevention strategies. As socioeconomic and other determinants of oral diseases reside largely outside the conventionally understood domain of health systems the

effective and efficient action to prevent these diseases requires application of multisectoral, multilevel and multidisciplinary approach involving health and non-health related partners.

WHO is playing an important role in building oral health policies towards effective control of risks to oral health, based on the common risk factors approach. The Sixtieth World Health Assembly through its resolution WHA60.17 on "Oral Health: An Action Plan for Promotion and Integrated Disease Prevention", acknowledged the intrinsic link between oral health, general health and quality of life and emphasized the need to incorporate programmes for promotion of oral health and prevention of oral diseases into the corpus of integrated prevention and control of chronic diseases.

The specific objectives of this important consultation is to review national situations, programmes and plans in the area of oral health in the Member States of the South-East Asia Region and to formulate a Regional Oral Health Strategy. Some progress towards achieving these objectives has been already noted.

An outline of the Regional Oral Health Strategy was developed by the Regional Office in 2007. In October 2007 a meeting of the South-East Asia Network for Prevention and Control of Noncommunicable Diseases (SEANET-NCD) discussed this outline and suggested amendments in its format and content. The draft document was elaborated and shared with Member countries for further comments prior to this consultation. This was done in collaboration with the Intercountry Centre for Oral Health at Chiang Mai, Thailand, a WHO collaborating centre for promoting community-based oral health, which was instrumental in organizing this consultation.

I am sure that the consultation will lead to the development of a regional oral health strategy that addresses contemporary challenges and guides health and non-health partners towards the development and implementation of effective, efficient and feasible programmes for the promotion of oral health and prevention and control of oral diseases.

I trust that the meeting will fully accomplish its objectives. I look forward to having a regional oral health strategy finalized and successfully implemented with WHO's technical support. I would like to wish you all success in your deliberations and a pleasant stay in Chiang Mai.

## Annex 2

# Programme

### Tuesday, 28 October

0830 – 0900	Registration	
0900 – 0945	<b>Inaugural Session</b> <ul style="list-style-type: none"><li>• Welcome Address by MoH, Thailand</li><li>• Regional Director's Message</li><li>• Introduction of Participants</li><li>• Election of Office Bearers and Announcements</li></ul>	
1000 – 1200	<b>Plenary Session: ORH Status and Opportunities for Oral Health Promotion and Integrated Disease Prevention</b>	
1000 – 1015	Integrated Prevention of Major Noncommunicable Diseases	<i>Dr J. Leowski</i>
1015 – 1045	Oral Health - Global and Regional Perspectives	<i>Dr P.E. Petersen</i>
1045 – 1100	Oral Health Promotion as an Integral Part of the Regional Strategy for Health Promotion	<i>Dr D. Munodawafa</i>
1100 – 1120	Promoting Healthy Diet for Oral Health	<i>Dr Suttalak S.</i>
1120 – 1140	Tobacco and Tobacco-induced Oral Diseases	<i>Dr P.E. Petersen</i>
1140 – 1200	Settings for Health - Oral Health Promotion through Schools	
1200 – 1700	<b>ORH in Member States of SEA Region – Status, Policies, Strategies, Plans and Programmes</b> <b>Country presentations:</b> 1200 – 1220 – Bangladesh 1220 – 1240 – Bhutan 1240 – 1300 – India 1400 – 1420 – Indonesia 1420 – 1440 – Maldives 1440 – 1500 – Myanmar 1540 – 1600 – Nepal 1600 – 1620 – Sri Lanka 1620 – 1640 – Thailand 1640 – 1700 – Timor-Leste	
1700 – 1730	General discussion (prioritizing issues to be addressed)	

**Wednesday, 29 October**

0800 – 1300	Field Trip to a Community-based Project	
1400 – 1500	Discussion on Demonstration Programmes for Oral Health Policy Formulation and Evidence for Public Oral Health	<i>Dr P.E. Petersen</i>
1500 – 1630	Community-based Oral Health Promotion-Experiences	ICOH Chiang Mai (other experiences)

**Thursday, 30 October**

0900 – 1000	Draft Oral Health Strategy for the South-East Asia Region	<i>Dr Sunsanee R</i> <i>Dr P.E. Petersen</i> <i>Dr S. Kwan</i>
1000 – 1100	Discussion on Regional Oral Health Strategy	
1100 – 1300	Working Groups: Revising Oral Health Strategy	
1400 – 1700	Working Groups: Revising Oral Health Strategy ( <i>contd...</i> )	

**Friday, 31 October**

0900 – 1100	Preparing Reports of Working Groups	
1100 – 1200	Presentation of Working Group Reports	
1200 – 1300	Process to Finalize the Strategy	
1400 – 1530	Conclusions and Recommendations	
1530 – 1600	Closing	

## Annex 3

### List of participants

#### Bangladesh

Prof Dr Md Zakir Hossain  
Principal  
Dhaka Dental College & Hospital  
Mirpur-14  
Dhaka  
Mobile: 01711540967 ® 8622211  
Email: hossainz@hotmail.com

#### Bhutan

Dr Samdrup R Wangchuk  
Head of Department  
Dental Department  
Jigme Dorji Wangchuk National Referral  
Hospital  
Royal Government of Bhutan  
Thimphu  
Tel: +975 2 325093  
Email: drsamdrup@yahoo.co.in

#### India

Ms Shalini Prasad  
Joint Secretary  
Ministry of Health & Family Welfare  
Government of India  
Nirman Bhawan  
New Delhi  
Tel: 91 11 24697277  
Mobile: 9968283478  
Email: shalini.prasad@nic.in

Dr D Kabi  
Staff Surgeon & Head (Dental)  
Safdarjung Hospital  
Ansari Nagar  
New Delhi  
Tel: 91 11 24100765  
Mobile: 9810180597  
Email: dkabi2000@yahoo.co.in

#### Indonesia

Dr (Mrs) Dewi Kartini Sari  
Chief of Section of Standardization for Family  
Dentistry

Directorate-General of Medical Services  
Ministry of Health  
Tel: 62 81398855968  
Email: sariaswin@yahoo.com

Dr Sri Susilawati  
Head of Dental Public Health Department  
Faculty of Dentistry  
Padjadjaran University  
Sekeloa Selatan I, Bandung  
Jawa Barat, West Province  
Tel: 022 2504985  
Mobile: 081321871485  
Fax: 022 2532805  
Email: sri\_susilawati@plasa.com

#### Maldives

Ms Fathmath Zeena  
Senior Dental Officer Gr.2  
Indhira Gandhi Memorial Hospital  
Male  
Tel: 00 960 7774471/960 3335257  
Fax: 960 3316640  
Email: zeena6772@hotmail.com

#### Myanmar

Dr Ko Ko Maw  
Deputy Director & Chief [Oral Health]  
Department of Health  
Ministry of Health  
The Government of the Union of Myanmar  
Nay Pyi Taw  
Tel: 95 67 411392-93  
Mobile: 095007893  
Email: mawkk9@gmail.com

#### Nepal

Dr Praveen Misra  
Chief Consultant, NAMS  
Bir Hospital  
379 `Y' Block  
Kathmandu Plaza  
Tel: 977 1 4241950  
Mobile : 9851030100  
Email : praveen@torque.wlink.com.np

Dr Kiran Raj Awasthi  
Programme Coordinator  
Health and Development Society Nepal  
Tel: 977 1 5532467, 977 9851063678  
Email: oralhealth@wlink.com.np  
Yangla-2K@yahoo.com  
Nepal

#### **Sri Lanka**

Dr J M W Jayasundara Bandara  
Deputy Director General (Dental Services)  
Ministry of Healthcare & Nutrition  
385, Suwasiripaya  
Colombo 10  
Tel: 94 (0) 11 26 93180  
Email: banda.j@health.gov.lk

#### **Thailand**

Mr Sutha Jienmaneechotchai  
Director  
Dental Health Division  
Department of Health  
Ministry of Public Health  
Tel: +66 2590 4212  
Fax: +66 2590 4203  
E-mail: sutajien@health.moph.go.th

Mrs Boonaur Yongvanishakorn  
Senior Dentist  
Dental Health Division  
Department of Health  
Ministry of Public Health  
Tel: +66 2590  
Fax: +66 2590  
E-mail: boonaur@health.moph.go.th

#### **Timor-Leste**

Dr Lucio F. Babo Soares  
Medical Doctor  
Ministry of Health  
Democratic Republic of Timor Leste  
Rua: Caicoli  
Dili  
Tel: +670 727 1546  
E-mail: luciobabo@yahoo.com

#### **Temporary Advisers**

Dr Sunsanee Rajchagool  
Director  
Inter-country Centre for Oral Health and  
Head, WHO Collaborating Centre for  
Promoting Community-based Oral Health

548 Chiangmai-Lumphun Rd  
Nong Hoi, Muang  
Chiang Mai 50000  
Thailand  
Tel: 053 801160-61  
Mobile: 0893701023  
Fax: 053 281909  
Email: srajchagool@hotmail.com

Dr Suttalak Smitasiri  
Head  
Division of Communication and  
Behavioural Science  
Institute of Nutrition  
Mahidol University at Salaya  
Phutthamonthon 4 Road  
Nakorn Pathom 73170  
Thailand  
Tel: 662 4410218  
Fax: 662 4419344  
Email: nussm@mahidol.ac.th  
suttalak@hotmail.com

Dr Hari Parkash  
U-1 Front, First Floor  
Green Park Extn  
New Delhi 110 016  
Tel: 91- 11 - 26188899 (Resi.)  
Fax: 91-9810118521  
Email: drhariparkash@yahoo.com

#### **WHO Headquarters**

Dr. Poul Erik Petersen  
Chief  
Oral Health Programme  
Chronic Disease and Health Promotion  
World Health Organization  
20 Ave Appia CH1211 Geneva Switzerland  
Tel. +41 22 791 3475  
Fax. +41 22 791 4866  
Email: petersenpe@who.int

Dr Stella Kwan  
WHO/HQ Temporary Adviser  
C/o Department of Child Dental Health  
Leeds Dental Institute  
Clarendon Way,  
Leeds LS2 9LU  
UK  
Tel: +44 113 343 6181  
Fax: +44 113 343 6140  
Email: S.Kwan@leeds.ac.uk

### WHO Country Offices

Mr Dorji Phub  
NPO-NMH  
WHO Bhutan  
Thimphu  
Tel: 975 2 322864  
Fax: 975 2 323319  
Email: phubd@searo.who.int

Dr Kumar Rajan  
Cluster Assistant (NMH)  
WHO India  
Tel: 91 11 23061955  
Fax: 91 11 23062450  
Email: kumarrajan@searo.who.int

Dr Shailesh K Upadhyay  
NPO  
WHO Nepal  
Tel: 977 1 5523993  
Fax: 977 1 5527756  
Email: upadhyays@searo.who.int

Dr Adisak Sattam  
NPO-M&E  
WHO Thailand  
Bangkok  
Tel: 66 2 590 1524  
Fax: 66 2 591 8199  
Email: adisak@searo.who.int

### WHO/SEARO

Dr Jerzy Leowski  
Regional Adviser  
Noncommunicable Diseases  
World Health Organization  
Regional Office for South-East Asia  
New Delhi, India  
Tel: 91-11-23309520  
Fax: 91-11-23370197  
Email: leowskij@searo.who.int

Dr Davison Munodawafa  
Regional Adviser  
Health Promotion & Education  
World Health Organization  
Regional Office for South-East Asia  
New Delhi, India  
Tel: 91-11-23309518  
Fax: 91-11-23370197  
Email: munodawafad@searo.who.int

Mr Arun Shrivastava  
Senior Administrative Secretary-NCD  
World Health Organization

Regional Office for South-East Asia  
New Delhi  
Tel: 91-11-23309521  
Fax: 91-11-23370197  
Email: aruns@searo.who.int

### Observers

Mrs Siripen Arunpraphan  
Senior Dentist  
Dental Health Division  
Department of Health  
Ministry of Public Health  
Thailand  
Tel: +66 2590 4213  
Fax: +66 2590 4203  
E-mail: siripen@health.moph.go.th

Mrs Wikul Visalseth  
Senior Dentist  
Dental Health Division  
Department of Health  
Ministry of Public Health  
Thailand  
Tel: +66 2590 4215  
Fax: +66 2590 4203  
E-mail: wikul@health.moph.go.th

Mrs Piyada Prasertsom  
Senior Dentist  
Dental Health Division  
Department of Health  
Ministry of Public Health  
Thailand  
Tel: +66 2590 4213  
Fax: +66 2590 4203  
E-mail: piyada@health.moph.go.th

Dr Warangkana Vejvitee  
Senior Dentist  
Dental Health Division  
Department of Health  
Ministry of Public Health  
Tel: +66 2590 4116  
Fax: +66 2590 4203  
E-mail: kana@health.moph.go.th

Dr Worrawan Asawakun  
Senior Dentist  
Dental Health Division  
Department of Health  
Ministry of Public Health  
Tel: +66 2590 4216  
Fax: +66 2590 4203  
E-mail: asawakun@yahoo.com



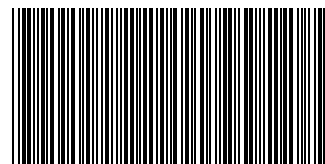
The WHO Regional Office for South-East Asia (SEA) organized this Consultation in Chiang Mai, Thailand, with the objective to promote public oral health approaches in the SEA Region. The consultation reviewed the national oral health situation, programmes and plans in Member States of the Region, and reviewed the draft of the Regional Oral Health Strategy that was developed in 2007 in close collaboration with the WHO Collaborating Centre on Promoting Community-based Oral Health, Chiang Mai, Thailand. Participants from 10 Member States – Bangladesh, Bhutan, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste attended the meeting. In addition, oral health experts and WHO staff from its headquarters, the Regional Office, and country offices also attended. The participants recommended that oral health programmes be strengthened in Member States to facilitate finalization of the Regional Oral Health Strategy.



**World Health  
Organization**

**Regional Office for South-East Asia**

World Health House  
Indraprastha Estate,  
Mahatma Gandhi Marg,  
New Delhi-110002, India



SEA-NCD-81