Thai Perspectives on Oral Health Strategies for Young Children

Chantana UNGCHUSAK, DDS, MPH
Bureau of Dental Health, Department of Health, THAILAND

Early childhood caries (ECC) is an infectious disease that affects the primary teeth of young children. Data from WHO and studies from various countries showed a big gap of ECC prevalence among developed and developing countries. The prevalence rate was 1-12% in developed countries, while in developing countries, as well as most of Asian countries, the prevalence rate was as high as 70% or more.

Although improvement in oral health have been noted in many developed countries, oral health inequalities have emerged as a major public health challenge because lower income and socially disadvantaged children experience a very high level of ECC. Data from the National Survey from 1989 to 2007 showed that the prevalence of dental caries in 3 years old and 5-6 years old Thai children was decreased dramatically only in Bangkok and urban area. The latest survey in 2007 also showed that children in Bangkok and urban area have their teeth brushed more frequent, and consume less sugar than those children in the rural area.

The strategies that have been done to cope with ECC problem since 1982, is to integrate oral screening program with the Anti natal clinic and well baby clinic. Oral examination and plaque control program for pregnant women are provided. The evaluation in 2010 showed that 81 % of pregnant women access to this oral health promotion program.

Oral screening are provided for children of 9-12 months old, who come for vaccination in the governmental hospitals. Parents are trained to brush their child's teeth. The evaluation in 2009 showed that the coverage of this activities was 82% of the children, while 77 % of their parents were advised how to brush the children's teeth. When the children are 3 years old, around 40% of them are taken care in daycare centers during day time. In the centers, children brush their teeth everyday after lunch. The coverage of activity was 96.6% of the centers over the country.

By the biological mechanism of ECC, it is well accepted that eating behavior share half of the risk. So the policy to prohibit sugar added into follow formula milk was proposed. This had been announced as the ministerial regulation # 286 since 2006. The evaluation showed that after the announcement the market share of sweet milk decreased by 2247 tons within 2 years.

To integrate oral activity into the community-based program, a participatory research is being done

in 9 provinces. The health volunteers are trained to perform oral screening for young children by lift the lip technique. Eating behavior of mother and children are interviewed. Then, the volunteers provide a specific information for parents. This program is integrated with the nutritional surveillance that children are check for weight and height every 3 month.

By the year 2011, under the Universal health insurance policy, the budget allocation for oral health promotion and prevention are provided separately. 95% of budget is allocated for oral health activities, and 5 % is for system monitoring and evaluation, and competency development for oral health professionals. By this new system, the budget for policy advocacy, as well as for the program that focus on community based approach are ear- marked.

Oral Health Promotion in Thai Adult Population

Thongchai VACHIRAROJPISAN, DDS, MA, PhD
Department of Community Dentistry,
Chulalongkorn University, THAILAND

In Thailand, there are many oral health promotion programs for young children, school children and elderly. The approaches of oral health activity in adult population are rare, even though the oral health problem in adult still shown in several aspect. The 6th National Oral Health Survey showed the oral health status of 35-44 years old as high caries prevalence and high percentage of periodontal disease. The prevalence of dental caries is high as 89.57% with DMFT 6.74 teeth per person. The component of DMFT was decay 1.51, missing 3.92 and filling 1.31 teeth per person. This data show the problem of delay dental utilization and tooth loss. The percentage of adults who have periodontal pocket were high as 37.6% compare with Thailand Oral Health Goal on 2020 that target to less than 20% of periodontal pocket patients.

Thai adult brush their teeth 96.28% in the morning and 89.97% before go to bed. Only 16.96 use toothbrush together with interproximal cleaner, such as dental floss, interproximal brush and toothpick. Fluoride toothpaste were used only 78.47% of population, due to the popularity of herbal toothpaste. Smoking were low at 78.1%. Around 40% of adult use dental services within one year.

Oral health promotion action mean follow on Ottawa charter compose of 1) build healthy public policies, 2) create supportive environments, 3) strengthen community action, 4) develop personal skills and 5) reorient health services. In fact, there were very few oral health promotion program target in adult population. Several empowerment activities in community were target on young children. The universal health security starts to allocate the budget for oral health promotion and prevention 40 million US dollar in 2011. The television campaign together with local activities will be launch on September-October 2011. However, these campaigns are focusing on young children.

The healthy choices in candy and chewing gum by Toothfriendly Thailand Network (TTN) will be establish in 2011. This project is support by Thai Health Promotion Foundation. The objective of this project are aim to coordinate and encourage manufactures to use Toothfriendly logo on their products and to communicate to Thai public for understand and alternative way to consume toothfriendly sweets. Now a day, the market share of sugar free chewing gum in Thailand only 20% (in 2007) compare with high market share in Japan (79% in 2008) and Switzerland (>90% in 2006).

Thailand is in the situation to change from agriculture society to industrialization. Adults who work in the companies, manufactures are increasing. The employee and worker spend their half of life in

working place. Workplace health promotion has attempted to react to an increasing burden of chronic disease. However, no workplace oral health promotion (WOHP) has been done in Thailand. The small research of WOHP supported by Tokyo Medical and Dental University was done in Lion (Thailand) Co., Ltd. Three focus group interviews, individual oral health interview and dental examination were take place at the company office. The WOHP intervention focus on create supportive environment, strengthening employee action and build healthy public policy will discuss between company staff and Chulalongkorn University staff. The lesson from WOHP at Lion (Thailand) Co., Ltd will be share to PhD candidate in Community Dentistry Department, Chulalongkorn University. In the future, the WOHP in manufactures Company at Saraburi province will be developed as a model of WOHP for other companies in Thailand.

Oral Health Problems in Thailand
- Relationship of Nutritional Status with Oral Health and Chewing Ability in Elderly Thai -

Patcharaphol SAMNIENG, DDS
Department of Oral Health Promotion, Tokyo Medical and Dental University, JAPAN
Department of Preventive Dentistry, Faculty of Dentistry, Naresuan University, THAILAND

In a cross-sectional study, we investigated the relationship of Mini Nutrition Assessment (MNA) results with chewing ability test and oral examinations (number of teeth present and Functional Tooth Units (FTUs)). The subjects were 612 elderly people (Mean [SD] age: 68.8 [5.9]). According to the MNA score, 25.1% of subjects were categorized as having normal nutrition, 67.2% as at risk of malnourishment, and 7.7% as having malnutrition. The mean numbers of teeth present and FTUs were [15.5] and [8.9], respectively. The ANCOVA analyses adjusted for age and gender showed that subjects with malnutrition had lower numbers of teeth present (8.8), FTUs (8.4) and chewing ability (6.8) than those with normal nutrition (13.3, 10.4 and 7.8) ($p<0.05$). Nutritional status was associated with mean numbers of teeth present, FTUs and chewing ability. Therefore, it was concluded that retention of natural teeth having appropriate numbers of FTUs by replacing missing teeth with dentures and improving chewing ability will help the risk of malnutrition in older adults.

Oral Health Care System and Oral Health Situation in Japan

Yoko KAWAGUCHI, DDS, PhD
Department of Oral Health Promotion,
Tokyo Medical and Dental University, JAPAN

According to the Japanese national statistics (2008), the total number of dentists is about 99,426 and the number of dentists per 100,000 population was 78. Female dentists account for about 20%. Most of the dentists are practicing in dental clinics. The dentists working in administrative sectors or public services are only 242 (0.2%). Therefore, public health services, such as oral health promotion activities at health centers or schools are conducted by private practitioners in the community. This is a unique characteristic of Japanese oral health care system. The Japanese Dentist Law describes the duty of the dentist as "Dentists shall take charge of dental treatment, provide oral health guidance, and contribute to the improvement and the promotion of public health in order to secure a healthy life for the people."

In Japan, community oral health promotion programs are conducted based on the laws, such as Maternal and Child Health Law, School Health and Safety Law, Labor and Safety Health Law, Medical care for Elderly Law, Health Promotion Law and the Law for Long-Term Care etc. Recently lots of local governments have established their own Oral Health Law which is effective in their community.

Each municipality provides free physical, medical and dental examinations for children aged 18 months and 3 years at health centers. Various oral health education materials and services are offered as part of this program, including information on oral health related habits, nutritional consultation and brushing instructions as well as clinical dental examinations. Topical fluoride application is also provided to those who want this service, for a reasonable fee. The mean dmft among 3-year-olds decreased markedly from 2.9 in 1988 to 1.0 in 2008.

School oral health activities are carried out mainly by a school dentist who is appointed by the local government. Every primary school, junior and senior high school has a school dentist, who is in charge of the all oral health activities at the school. The school dentist, who is a dental practitioner from the local area, usually works for the school on a part-time basis. The roles of school dentists include oral health examination of all enrolled school children at least once a year, and the implementation of the school's oral health education program. In school oral health examinations, the school dentist evaluates the oral health status of each child and records conditions such as dental

caries, gingival conditions, oral hygiene, occlusion and temporomandibular disorders according to the nationally agreed standard criteria.

School dentists do not provide dental treatments at school, instead the school dentist recommends the student to receive dental treatments in other dental facilities if students have some oral problems. Japan has a national health insurance program which covers dental treatments, thus all Japanese citizen can access to general dental and emergency dental care. Oral health education is conducted by the school dentist or dental hygienist in cooperation with the nursing and classroom teachers. Oral health education programs usually include prevention of dental caries or gingivitis, but the content of oral health education program depends on the individual school's curriculum and timetable. The DMFT of 12 years old children is 1.3 in 2010.

In 1989, Ministry of Health and Welfare and the Japan Dental Association proposed the "8020 campaign". The objective of this campaign is to inform the public and dental professionals on the importance of retaining 20 or more natural functional teeth until 80 years of age to maintain satisfactory masticatory abilities. Tooth loss increases as an individual gets older. The concept of "8020" is to ensure all Japanese people are able to enjoy healthy dietary as well as social life by preventing tooth loss that will cause masticatory dysfunction. It has been more than 20 years since the campaign was introduced. The percentage of 8020 achievers (people aged 75 years or older with 20 and more teeth) was less than 1 % in 1980s, but it reached about 25 % according to the national survey in 2005.

Japan is the most "aging country" in the world, where the average life expectancies at birth in 2009, were 86 years for females and 80 years for males. With the increasing aging population, Japan has changed its health policies on the disabled and bedridden elderly, and focused on the prevention of diseases and promotion of health in an aging society.

National Health Insurance System in Japan

Satoshi ABE, DDS, PhD
Tatsuo YAMAMOTO, DDS, PhD
Yukio HIRATA, DDS, PhD
Department of Social Dentistry, Kanagawa Dental College, JAPAN

Nowadays, the policies for health care and public health in Japan were based on the statement of article 25 of the Constitution established after the Second World War. The Japanese national health insurance system that covered all Japanese people has started from 1961 as the universal health insurance system. The health insurances that people belong to are depending on age and occupation. There are health insurance for employees (72 million), health insurance for the self-employed (39 million), and health insurance for the elderly (13 million).

The major characteristics of the Japanese national health insurance system are that all Japanese people were covered; medical expenses are paid to medical organization like hospital by national health insurance directly, and free access for patients. In Japan doctor has no limitation to open his clinics, and the insurance premium is decided relative to salary, and equally shared between employers and employees. Patients have to pay 30% of total treatment fee as co-insurance, and the hospital can get the other 70% from the national insurance. The elderly aged 75 years or older have to pay 10% of total medical expenses as co-insurance according to the Elderly Health Care Security Act.

People can use the dental health care services provided by this health insurance system. However, cosmetic dental service such as orthodontics, whitening; new dental technologies like implants treatment, CAD/CAM; and preventive service including fluoride application are not covered by the national health insurance and all costs must be paid patients themselves. The majority of dentists are contracted the health insurance funds but there are some who choose not to participate in this health insurance system.

Dental treatment by national health insurance are crown, and restoration (32.0%), endodontic treatment, and removal crown (15.9%), maintenance of periodontal disease (12.5%), clinic charge (11.0%), denture (10.1%). Average of dental treatment per month is JPY 6,159, and average of visiting clinic per month is 2.07times. Japanese national health insurance for dental needs is still based on “treatment” but not “prevention”. The policy for dental health should change the emphasis to prevention in the near future.

Japanese Dental Education System
-Current problems and challenges for the future-

Ikuko MORIO, DDS, PhD
Dental Education Development
Graduate School of Medical and Dental Sciences
Tokyo Medical and Dental University, JAPAN

"Do we have too many dentists in Japan?" The responses might vary according to whom you direct this question. If you change the question to "Do we have enough good dentists in Japan?" you might hear a variety of opinions here as well.

Since 1979 there has been no change in the number of dental schools in Japan. These 29 schools consist of 17 private, one public (municipal), and 11 national (national university corporation) dental schools. As the number of dental schools increased in 1960s and 1970s, enrollments also increased. Enrollment at these 29 dental schools at one time exceeded 3,300; from 1985, enrollments began to decline. In 2008, the Minister of Education and the Minister of Health agreed to make serious efforts to decrease the number of dentists in Japan. The strategy employed was to cut back on the dental student annual intake and to make the National Dental Examination (which started in 1947) more difficult. TMDU had to decrease its annual intake of students from 65 to 53 in 2011.

In March 2003 the Model Core Curriculum in Undergraduate Dental Education, a reform intended to improve the quality of clinical education, was announced. The Model Core Curriculum consists of a set of core educational objectives which should be commonly included in the curriculum of every dental school in Japan. After having been revised several times, the Model Core Curriculum can now be considered the national standard for dental education in Japan. Unfortunately, the curriculum evaluation system based on the Model Core Curriculum has not yet been fully established. Also, it must be noted that the effort to decrease the number of dentists by use of the knowledge-only national examination primarily affects Japanese pre-doctoral (undergraduate) dental education.

While quality control of undergraduate clinical education remains to be a major issue at dental schools, educational programs for dental hygienists and dental technicians are evolving in Japan. At TMDU, for example, we now have a 4-year bachelor's course for each allied dental science.

In this presentation, current problems in Japanese dental education and their effect on the Japanese dental workforce of the future will be introduced and discussed.

Oral Health Problems in Japan
- Relationship of the Self-rated Oral Health and Oral Health Related Quality of Life with the Oral Health Status -

Takashi ZAITSU, DDS, PhD

Department of Oral Health Promotion, Tokyo Medical and Dental University, JAPAN

Despite of the high prevalence of periodontal disease in Japanese adults, the percentage of the people who regularly visit dental clinic is still low. It is therefore considered that some Japanese adults do not rightly perceive their poor oral health conditions. Oral health condition also affects their quality of life. Thus, obtaining the information on the relationship between oral health status and Oral Health Related Quality of Life (OHRQoL) is very important to promote oral health. We investigated the relation among the General Oral Health Assessment Index (GOHAI) which is reliable assessment of OHRQoL, self-rated oral health and oral health status in Japanese adults.

The subjects were 459 residents (156 males, 304 females), aged 40-55 years in Akita Prefecture, Japan. Oral health examinations and a self-administered questionnaire survey were both conducted in 2007. The questionnaire items were demographic information (gender and age), GOHAI (12 items) and self-rated oral health. Logistic regression analysis was performed with GOHAI or self-rated oral health as a dependent variable and gender, age and oral health status (decayed teeth, missing teeth, filled teeth, gingival bleeding, calculus, pocket depth, oral malodor, oral dryness, oral hygiene, and functional tooth unit: FTU) as independent variables.

The percentage of subjects recognizing their oral health as "bad" was 23.3%, "fair" was 52.9%, and "good" was 23.8%. The mean GOHAI score was 53.6±6.1. According to the each item of GOHAI, 42.7% of the subjects were concerned about their "appearance of teeth", 30.1% about "worried about teeth problems" and 27.5% about "sensitive teeth". Logistic regression analyses showed that missing teeth and FTU were significantly associated with GOHAI, and that decayed teeth, mouth dryness and oral hygiene were significantly associated with self-rated oral health.

Tooth loss and fewer FTU scores were related with low scores of GOHAI which meant low level of the quality of life. On the other hand, decayed teeth, mouth dryness and poor oral hygiene were related with the lower self-rated oral health. Tooth loss is mainly caused by dental caries and periodontal disease. However, Japanese adults did not rightly recognize their periodontal symptoms such as gingival bleeding, calculus, pocket depth and oral malodor. It is necessary to enlighten people more about periodontal disease so that they could prevent the loss of teeth affecting the OHRQoL.

Oral Health Problems in Vietnam
- Oral malodor treatment in Vietnamese patients -

PHAM Anh Vu Thuy, DDS
Dept. of Oral Health Promotion, Tokyo Medical and Dental University, JAPAN
National Hospital of Odonto-Stomatology in Hochiminh city, VIETNAM

Halitosis, also called oral malodor is a condition which may affect up to 30% of general population in several countries. In Vietnam, increasing numbers of patients present at dental office complaining of oral malodor. However, the information on oral malodor in Vietnamese people is sparse. In 2009, we conducted a cross-sectional survey on oral malodor in a group of Vietnamese dental patients. The results showed that the prevalence of oral malodor was 57.9%. The following stage, we provided the oral malodor treatment to 218 subjects including 102 periodontitis and 116 gingivitis patients with oral malodor. Subjects in each periodontal disease group were randomly assigned into two sub-groups depending on the sequence of treatment: periodontal treatment and tongue cleaning. Throughout the treatment of oral malodor, we further evaluated the effects of periodontal therapy and tongue cleaning on oral malodor reduction. The findings showed that for subjects in periodontitis group, there were statistically significant reductions in oral malodor after periodontitis treatment or tongue cleaning. However, major reductions were found after periodontitis treatment. For those in gingivitis group, there were also statistically significant reductions in oral malodor after gingivitis treatment or tongue cleaning, but the most marked reductions were observed after tongue cleaning. At the completion of treatment, all oral malodor parameters fell below the threshold levels in all sub-groups. Our study indicated that periodontal treatment played an important role and tongue cleaning contributed a lesser extent to oral malodor reductions in periodontitis patients. In contrast, tongue cleaning alone can be the primary approach to reduce oral malodor in gingivitis patients. Current findings provided the protocol to best manage oral malodor in patients with periodontal diseases.

Oral Health Problem in Indonesia
- A study on Association between Functional Tooth Units and Nutritional Status among the Indonesian Elderly –

Melissa ADIATMAN, DDS

Department of Oral Health Promotion, Tokyo Medical and Dental University, JAPAN

Department of Dental Public Health and Preventive Dentistry, University of Indonesia, INDONESIA

Objectives: There are very few studies available regarding the oral health of the elderly in Indonesia. The aim of this study was to characterize the oral health status of the Indonesian elderly by investigating the relationship between Functional Tooth Units (FTUs) and nutritional status.

Methods: Subjects were 100 female elderly individuals (mean age: 74.1±8.6 years, age range: 60–89 years) lived in 4 private nursing homes in Jakarta, Indonesia. Dental examination (excluding third molar), questionnaire interview, and measurement of BMI were conducted. To evaluate masticatory ability, FTUs was calculated. The numbers of FTUs were defined as pairs of opposing posterior natural teeth or artificial teeth of prosthesis (fixed or removable dentures). Opposing premolars unit was scored as 1 and opposing molars unit as 2, therefore total FTUs of complete posterior dentition was 12. Three types of FTUs were investigated; natural teeth against natural teeth (NN-FTUs), natural teeth against dentures (ND-FTUs), and dentures against dentures (DD-FTUs). Nutritional status was evaluated using Body Mass Index (BMI) based on the WHO classification and Mini Nutritional Assessment (MNA). The relationships between FTUs and nutritional status were statistically analyzed. Prior to the study, informed consent was obtained from the participants.

Results: Eighteen percent of subjects were edentulous and more than half of them had no dentures. Among dentate subjects 72% had missing teeth without prosthesis replacement. In all subjects, the mean number of teeth present was 14.0±11.4. The mean number of each FTUs were NN-FTUs=1.7±3.0, ND-FTUs=1.2±3.3, and DD-FTUs=0.4±1.2, respectively and total FTUs was 3.3±4.4. The proportions of BMI classifications were as follows; underweight (9%), normal (44%), and overweight (47%). There was no significant difference in the number of teeth present between BMI classifications; however there were significant differences in total FTUs between subjects with normal (3.6±4.6) or overweight (3.6±4.5) and those with underweight (0.1±0.3). The proportions of MNA categories were as follows; malnourished (2%), at risk of malnutrition (57%), and normal nutritional status (41%). After MNA categories being dichotomized, the result showed that subjects with normal nutritional status, had a significantly higher number of NN-FTU (2.6±3.7) compared to those who were malnourished or at risk of malnutrition (1.2±2.4).

Discussion: In this study, number of teeth present was not associated with nutritional status. However, there were significant differences of number of FTUs between BMI classifications and MNA categories. These results confirmed that FTUs is a more relevant index compared to the number of teeth present to evaluate masticatory ability. This study also suggests that subjects with low number of FTUs tend to be underweight or at risk of malnutrition. It is considered that the number of FTUs influences eating habits of the elderly as well as their nutritional status and general health condition.

Conclusion: This study showed the importance of keeping natural teeth and posterior occlusion through replacement of missing teeth with dental prosthetics, in order to maintain good nutritional status in the elderly.

The Establishment of New Oral Health Support System in Asia

Masayuki UENO, DDS, PhD, MPH
Department of Oral Health Promotion,
Tokyo Medical and Dental University, JAPAN

To promote oral health of the population, it is necessary that oral health services by governments as well as by medical facilities are effectively provided. The purposes of this 3-year research project, which is funded by Sciences Research Grant from the Ministry of Health, Labour and Welfare, are to objectively evaluate oral health services measures in Japan from an international perspective, analyze the socio-environmental changes surrounding dental diseases and current oral health status in Japan, and propose a concrete guideline for the establishment of new oral health support system.

To accomplish these purposes and improve Japanese system of oral health services, we are planning to collect information about various potential factors affecting changes of dental diseases in Japan and advanced approaches in oral health services focusing on the prevention and health promotion in other countries. The information may include programs targeting the association of periodontal diseases with systemic diseases like diabetes mellitus, aspiration pneumonitis, arteriosclerosis and myocardial infarction.

Each country or community has different oral health status, oral health services and oral health delivery system. However, main causes of dental caries and periodontal diseases are basically same regardless of country and principles of prevention or treatment of dental diseases are also standardized. Therefore, it would be very meaningful to grasp and evaluate oral health status such as "Healthy Japan 21" conducted by prefectural or city governments, and compared it with that in other countries which may have advanced preventive approaches and systems of oral health promotion

Expected benefits of this project will be progress of effective community oral health measures, improvement of national oral health, enhancement of QOL, and maintenance and promotion of general health. Further, the results of this project could be used to propose a concrete guideline of new oral health support system inserted into "New Healthy Japan 21", a new growth strategy, approved in a cabinet meeting on June 18, 2010.

In this presentation, I will first briefly describe the background and framework of this project. Then, following the presentation, I am receiving active feedback from the members of Thai group and exploring the possibility of information exchange between two countries regarding this project.

I. Basic information

1. Population (Chronological change, age group, gender)
2. Area (geographical and administrative boundary)
3. Types of healthcare personnel (e.g. medical doctors, nurses, dentists, dental hygienist, dental assistants, dental technicians, and so on)
4. Number of hospitals and clinics

II. Dental personnel

1. The number of dental hospitals and clinics
2. The number of dentists and dental auxiliaries (hygienists, technicians and others) work at dental hospitals/clinics or government
3. Regulations on supply of dental personnel (e.g a license renewal or retirement system) and comparison with medical doctors
4. Education of dentists, hygienists, and technicians
    1) Number of dental schools
    2) Enrollment (number of students for enrollment)
    3) Core curriculum
    4) Decision process of enrollment
    5) Comparison with medical doctors (differences and similarities)
5. Process of becoming dentists
    1) Procedure of applying for dental license in persons who are Thai dental school graduates
    2) Procedure of applying for dental license in persons who are Thai dental school graduates, but have foreign nationality
    3) Procedure of applying for dental license in persons who are foreign dental school graduates
6. National exams for dentists, hygienists, and technicians
    1) Managing organization
    2) Qualifications
    3) Number of applicants
    4) Date of exams
    5) Frequency of exams
    6) Type of exams (e.g. oral, practical exams)
    7) Comparison with exams for medical doctors (differences and similarities)
7. Licenses for dentists, hygienists, and dental technicians
    1) Organization issuing licenses

2) Management of licenses
3) Limitations of practices in professionals with foreign nationality
4) Comparison with licenses of medical doctors (differences and similarities)

8. Clinical internship as dentists, dental hygienist, and dental technicians
   1) Managing organization
   2) Content of internship
   3) Comparison with internship of medical doctors (differences and similarities)

9. Range of services and limitations as professionals
   1) Range of services and limitations as dentists (e.g. boundary with otolaryngologist)
   2) Range of services and limitations as dental hygienists
   3) Range of services and limitations as other dental auxiliaries

10. Dental specialists
    Definition of general practitioners and specialists such as orthodontics, endodontics, etc

Ⅲ. Law

Laws regulating dentistry such as clinical practices, dental personnel, opening and advertisement of dental clinics, etc.

IV. Oral health care system

1. Structure of health care system

2. Medical and dental care expenditures and their main components

3. Public/Private Health insurance system

   1) Number of dental facilities and dentists providing treatments covered by insurance

   2) Decision process of health insurance system

      e.g. fee schedule, list of covered services, introduction of new treatment technologies into public health insurance coverage, standard prices of materials, reimbursement of materials covered by public health insurance

3) List of dental treatments covered by health insurance (e.g. filling, restoration, crown, bridge, denture, oral surgery, periodontal treatment, orthodontic treatment, implant and so on)

4) List of dental treatments not covered by health insurance

5) List of dental materials reimbursed by health insurance and their standard prices (e.g. composite resin, amalgam, alloy including Au-Ag-Pd, and materials for denture)

6) Method of reimbursement

7) Evaluation method of dental practices (materials and quality of techniques) by health insurance

8) Coordination of dental treatments covered by public health insurance with the oral health services by the government

9) Advanced dental treatment techniques (e.g. spread of CAD/CAM)

10) Coverage of preventive treatments by health insurance

V. Public oral health care services in the community

1. List of public oral health care services in the community (e.g. oral examinations for mothers and children, schoolchildren, adults, elderly etc.)
2. Role of government for providing oral health services in the community

VI. Trends in oral diseases and specific health care services

1. National survey of oral health
2. Trends in dental caries
3. Trends in periodontal diseases
4. Advanced or special oral health services in prevention and health promotion (e.g. Relationship between oral health and general health, periodontal disease and systemic disease)

VII. Fluoride and amalgam

Utilization of different types of fluoride application and amalgam

Bureau of Dental Health

Thai Oral health care system and oral health situation

Dr.Sutha Jienmaneechotchai
Director
Bureau of Dental Health
Department of HealthMinistry of Public Health, Thailand

Topic for Presentation

- Health service system
- Oral health status and factors related to oral health
- Area for concern
- Strategies

STRUCTURE OF HEALTH SERVICE SYSTEM IN THAILAND

Health services
- Categories
- Levels
- Specialized/general care

Management
- Policy and plan
- Laws
- Monitoring
- Information

Organization structures
- Public / APO
- Private
- Socialized / general care

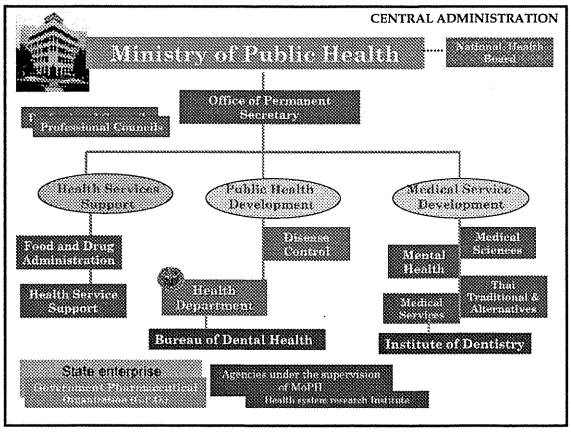
Financing
- Social security
- Taxes
- Individual
- Business

Health resources
- Body of knowledge
- Medical supplies
- Health facilities/equipment
- Manpower

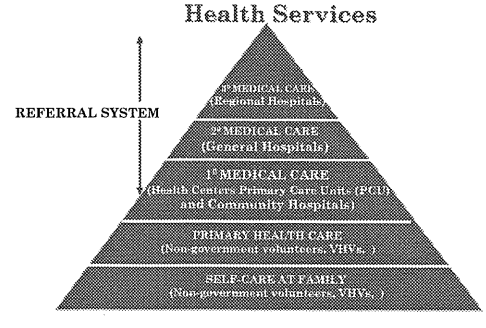
Organization Structures Bureau of Dental Health

- Government Sector
  - Ministry of Public Health
- Other Governmental Agencies
- Non-Governmental Organizations
- Private Sector

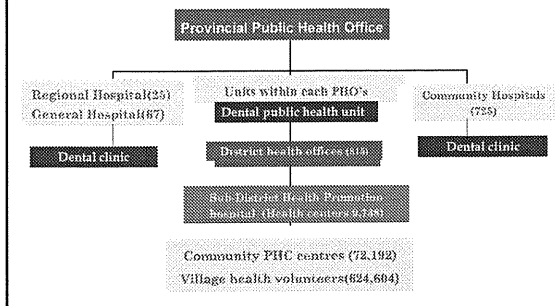
CENTRAL ADMINISTRATION



Health Services

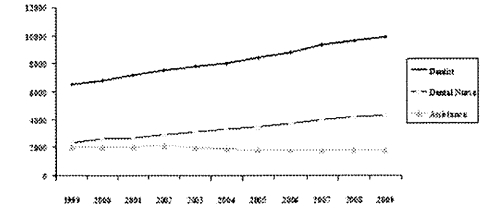


PROVINCIAL ADMINISTRATION



Organization structures

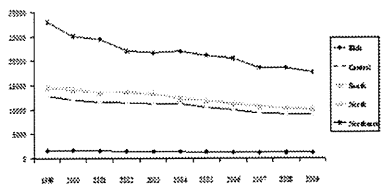
Oral Health Personnel 1999-2009



Dentist		9,646
	Private practice	*52.6%*
	Government services	*47.4%*
Dental Nurse		4,164
Dental assistance		1,809
Dental technician		100

Source: Reports on Dental Health Personnel,1999-2009,Department of Health,MoPH

Population to Dentist Ratios by Region, 1999-2009



Dentist : population ratio

Whole Country 1 : 6,572

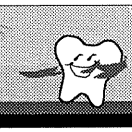
Bangkok 1 : 1,195

Source: Reports on Dental Health Personnel, 1999-2009, Department of Health, MoPH

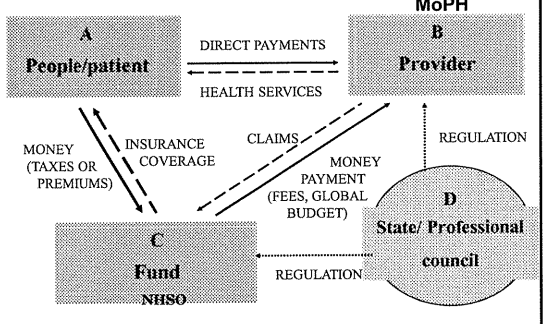
Health Care System Reformation / Bureau of Dental Health

Government's policy (2001- present)

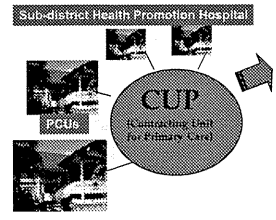
- Government system reformation
  (Organization structure & budgeting system)
- Government Health Policies
  - The Universal Coverage Scheme
  - Health promotion, Disease prevention & control, Customer protection



Components in health insurance system



Universal Coverage Scheme

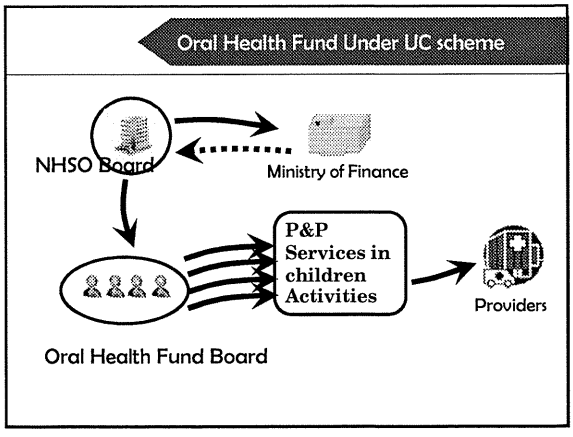


Dental Health Services in Benefit Core Package

- Treatment Filling , Extraction, Scaling
- Prevention Sealant, F application, DHE

Outreach services

Dental health education



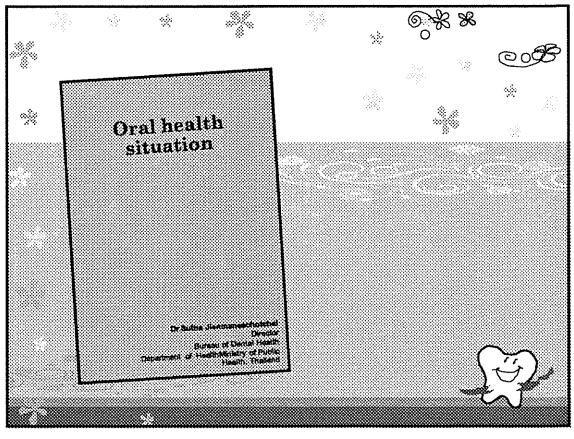
Dental Health Bureau

Vision:

To be the Leading Agency committed to working on the Oral Health Promotion

Mission:

1. Engage in policy and regulation advocacy on oral health.
2. Build up body of knowledge, innovation and technology for the oral health promotion.
3. Transfer of knowledge and technology
4. Strengthen the oral health care system by ways of monitoring and evaluation which lead to the policy development on a continuing and improving basis.



Oral Health Status

Age	Status	1994	2001	2007
3	% Caries affected	66.5	66	61.4
5-6	% Caries affected	85.3	87	80.6
12	Mean DMFT	1.6	1.6	1.55
	% CPI = 0	2.3	9.5	18.0
15	% Having 28 teeth	67 *	71	72
35-44	% Having 20 teeth	92	92	96
	% CPI ≥ 3 (periodontal pocket)	57.6	37.3	37.6
60-74	% Having 20 teeth	48	49	54
	% CPI ≥ 3 (periodontal pocket)	74.4	61.6	84.2

* Age 18 years old

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