

Re-Inventing Japan Project
大学の世界展開力強化事業

Inter-university Exchange Program toward Medical and Dental Networking
in Southeast Asia

東南アジア医療・歯科医療ネットワークの構築を目指した大学間交流プログラム

国際セミナーⅥ

世界の口腔保健の最新トピックス

International Seminar VI

Latest Topics in Global Oral Health

2014 年 10 月 21 日



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

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1. セミナー概要

*Inter-University Exchange Program
toward Medical and Dental Networking in Southeast Asia*

International Seminar

Latest Topics in Global Oral Health

The purposes of this seminar are to exchange information about oral health status, oral health services and oral health delivery system of different countries. Evidence based oral health promotion refers to the development, implementation, and evaluation of effective programs and policies in population through application of evidence. In the seminar, we would like to share our experience and evidence in Australia, Thailand, Indonesia, Vietnam and Japan, and discuss effective oral health promotion programs.

Date: October 21st, 2014 (Tue), 13:00~17:00

Venue: Special Lecture Hall, Dental Hospital Building 4th floor

Speakers:

Dr. FA Clive Wright (Australia)
Dr. Yupin Songpaisan (Thailand)
Dr. Thongchai Vachirarojpisan (Thailand)
Dr. Pham Anh Vu Thuy (Viet Nam)
Dr. Melissa Adiatman (Indonesia)

Dr. Takashi Zaitzu (Japan)
Dr. Haslina Rani (Malaysia)
Dr. Ei Ei Aung (Myanmar)
Dr. Anastasiya Blizniuk (Belarus)

平成 26 年度大学の世界展開力強化事業

国際セミナー

世界の口腔保健の最新トピックス

本セミナーでは、大学の世界展開力強化事業で招聘した研究者を中心に、オーストラリア、タイ、インドネシア、ベトナム、日本の歯科保健状況、歯科保健システムなどの現状と課題、最新動向について情報交換を行い、今後のオーラルヘルスプロモーションの展望について総合討論を行います。多くの皆様のご参加をお待ちしております。

日時:2014 年 10 月 21 日 (火) 13:00~17:00

場所: 歯科外来事務棟 4 階特別講堂



連絡先：健康推進歯学分野 川口陽子（内線 5475）

Date: October 21, 2014 (Tue), 13:00~17:00
Venue: Special Lecture Hall, Dental Hospital Building 4th floor

Opening remarks

Prof. Yoko Kawaguchi

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

13:10 – 15:25 Session 1: Latest Topic in Oral Health

Chair: Dr. Sachiko Takehara

“Latest Topic in Australia”

(Dr. FA Clive Wright, Associate Director and Clinical Professor,
Centre for Education and Research on Ageing, Concord Clinical School,
University of Sydney, Australia)

“Oral Health Care in Japan: Lessons Learned and Their Applications”

(Dr. Yupin Songpaisan, Fomer Dean, Faculty of Dentistry, Thammasat University)

“Oral Health Promotion in Thailand”

(Dr. Thongchai Vachirarojpisan, Lecturer, Chulalongkorn University)

Break (10 min)

“Dental Training and Dental License in Vietnam”

(Dr. Pham Anh Vu Thuy, Lecturer,
University of Medicine and Pharmacy in Ho Chi Minh City, Vietnam)

“The Road of Universal Coverage: An Indonesian Experience”

(Dr. Melissa Adiatman, Lecturer, Universitas Indonesia)

“Oral Health Promotion in Space and Antarctic Environment”

(Dr. Takashi Zaitu, Assistant Professor, Tokyo Medical and Dental University)

Break (10 min)

15:35 - 16:20 Session 2: Research Topics in Oral Health Promotion

Chair: Dr. Akiko Oshiro

“Prevalence and Associating Factors of Oral Malodor in Malaysia”

(Dr. Haslina Rani, Tokyo Medical and Dental University)

“Effectiveness of Oral Hygiene Regimens on Oral Malodor Reduction in Myanmar People”

(Dr. Ei Ei Aung, Tokyo Medical and Dental University)

“Association of Oral Health Literacy with Oral Health Behavior and Oral Health Status”

(Dr. Anastasiya Blizniuk, Tokyo Medical and Dental University)

16:20 - 16:25 Closing remarks

Dr. Masayuki Ueno

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

2. セミナー写真 Pictures



Opening Address from Prof. Kawaguchi











3. セミナースライド

“Latest Topic in Australia”

Dr. FA Clive Wright, Associate Director and Clinical Professor, Centre for Education and Research on Ageing, Concord Clinical School, University of Sydney, Australia



Oral Health Issues in Australia: 2014

Clive Wright,

CENTRE FOR EDUCATION & RESEARCH ON AGEING,
CONCORD CLINICAL SCHOOL, UNIVERSITY OF SYDNEY
AGED CARE AND REHABILITATION, CONCORD GENERAL
AND REPATRIATION HOSPITAL,
SYDNEY LOCAL HEALTH DISTRICT, SYDNEY, AUSTRALIA







Current Oral Health Issues in Australia

- Draft National Oral Health Plan 2014 – 2023
- Scopes of Practice
- Dental Tourism
- Oversupply of Dentists & Undersupply of Dental Academics ?



First Issue

Healthy mouths
healthy lives

Australia's
National Oral Health Plan
2014-2023

DRAFT



Background oral health issues...

Despite improvements over the last 20-30 years, poor oral health is still among the most common health problems experienced by Australians.

- Three out of ten adults have untreated tooth decay and four out of ten young children still experience tooth decay.
- Only four out of every ten Australian adults (39%) have favourable visiting pattern, i.e. seeing a dentist once a year for a check up, rather than waiting to treat poor oral health
- Many of the priority populations outlined in this Plan have high rate of poor oral health and find it more difficult to access oral health care.
 - Aboriginal and Torres Strait Islander people and adults who are socially disadvantaged or on low incomes have more than double the rate of poor oral health than their counterparts.
 - People with additional or specialised health care needs or those living in regional and remote areas find it more difficult to access oral health care.



Key Strategies...

The Foundation Areas

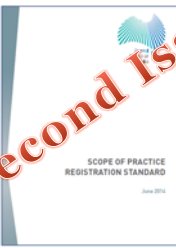
Foundation Areas					
Oral health promotion	Accessible oral health services	Systems alignment and integration	Safety and quality	Workforce development	Research and evaluation

Priority Populations

Priority Populations			
People who are socially disadvantaged or on low incomes	Aboriginal and Torres Strait Islander people	People living in regional and remote areas	People with additional and/or specialised health care needs

Priority population 4 - Key Strategies

GOAL	IMPACT	MEASUREMENT	RESPONSIBILITY
P 4.1 Build national evidence and ongoing data to more accurately identify the numbers of people with specialised health care needs, their oral health status and treatment needs	(1) Regular reporting of oral health status and treatment need for people with specialised health care needs	See Page 76	Medium
P 4.2 Improve the oral health understanding of the dental and care workers of people with specialised health care needs to incorporate oral health in their existing assessment, care planning and care provision	(1) Provision of people with specialised health care needs that address the careworkers' capacity for frequency of access (2) Check for previous indicators (other settings) (3) Provision of oral care workers who have undertaken training to improve oral health understanding	See Page 76	Medium
P 4.3 Build workforce capacity in the oral health sector to effectively address the needs of people with additional or specialised health care needs	(1) Provision of continuing professional development courses that provide skills in treating people with additional or specialised health care needs (2) National consensus on informed consent and the use of sedation and anaesthesia for dental treatment	See Page 76	Long
P 4.4 Increase the availability of equipment and treatment rooms for use to provide oral care services in non-dental settings	(1) Provision of treatments provided to people with additional or specialised health care needs using portable dental equipment (2) Provision of treatments provided to people with additional or specialised health care needs in treatment rooms in non-dental settings	See Page 76	Medium
P 4.5 Review changes to OHS legislation or policy to ensure equipment is safe to use in non-dental settings	(1) Provision of evidence based dental theatre training for people with additional or specialised health care needs to ensure safe dental theatre for other theatre situations	See Page 76 See also P 4.4	Short



Second Issue

1. All dental practitioners are members of the dental team who exercise autonomous decision making within their particular areas of education, training and competence, to provide the best possible care for their patients.
2. Dental practitioners must only perform dental treatment:
 - a) for which they have been educated and trained in programs of study approved by the National Board, and
 - b) in which they are competent.
3. Dentists are independent practitioners who may practise all parts of dentistry included in the definition of dentistry. Where there is a structured professional relationship or referral relationship then the dentist is the clinical team leader.
4. Dental prosthetists are members of the dental team. They work as independent practitioners in a range of activities included in the definition of dentistry.
5. Dental hygienists, dental therapists and oral health therapists are members of the dental team. They practise in a range of activities included in the definition of dentistry. They may only practice within a structured professional relationship with a dentist. They must not practise as independent practitioners.
6. A dental practitioner must not direct any person whether a registered dental practitioner or not to undertake dental treatment or give advice outside that person's education or competence.

Registrable Dental Practitioners

- Dentists
- Dental Specialists
- Dental Prosthetists
- Dental Therapists
- Dental Hygienists
- Oral Health Therapists

Definitions

Definition of dentistry and practitioner descriptions are included in the *Guidelines for scope of practice*. Restricted dental acts (section 121 of the National Law) also apply to this definition.

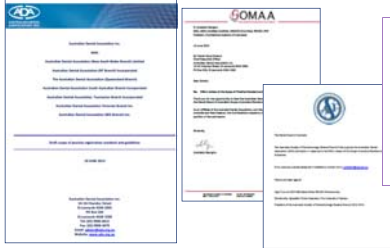
Independent practitioner means a practitioner who may practise without a structured professional relationship.

National Law means the Health Practitioner Regulation National Law as in force in each state and territory.

Programs of study approved by the National Board for the purpose of this standard include:

- **approved programs of study** are programs accredited by the accreditation authority for the profession and approved by the National Board under the National Law. The approved programs are those which, upon successful completion lead to registration or endorsement as a dental practitioner in the division or specialty in which study was completed
- **other assessment, examination or qualification** that qualifies a practitioner for general registration (section 53 of the National Law), specialist registration (section 57) limited registration with the Board (section 65) or endorsement (section 99), or
- **programs to extend scope** (formerly known as **add-on programs**) are programs which can extend a dental practitioner's scope of practice by undertaking educational programs that the National Board has reviewed and approved. The programs to extend scope cover a range of skills which allow dental practitioners to extend their education, training and competence in certain areas and within the division in which they are registered.







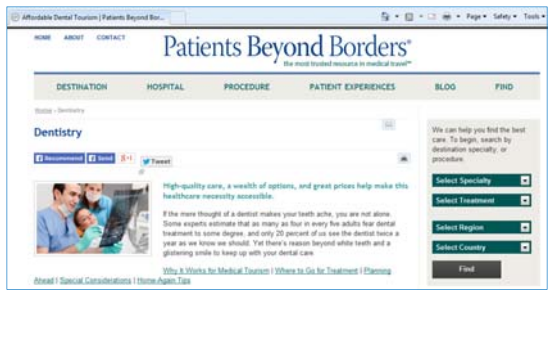
The ADA represents almost 15,000 stakeholders, 80 % of whom work in the private sector. Many of these practitioners work within structured professional relationships with ADPs. The proposed changes as worded have the potential to deconstruct these existing structured professional relationships.

There is no support from within the profession for the changes proposed.





Third Issue



The screenshot shows the 'Patients Beyond Borders' website with a search bar for 'Dentistry' and various filters for destination, hospital, procedure, patient experiences, blog, and find. It also features a 'Verified Clinics' section and a 'Smile Planners' section.



Dental tourism

As dental costs continue to rise, some people are looking to travel overseas for treatment.

While reported savings of up to 70% in some countries, it is not without a growing number of people are warning that they face other risks.

In this report we look at:

- How the industry works
- How the industry is regulated
- The growing dental care in Australia
- How costs really can be reduced
- How to look for risk



Smile Planners

Verified Clinics Internationally Trained Dentists

Save on Dental Implants, Crowns, Veneers at Accredited Clinics in Thailand



DENTAL TOURISM DO YOUR RESEARCH

It's your money, your health and your teeth.

Consider dental tourism can sometimes come at a high cost. Depending on the circumstances, some people consider getting their treatment overseas to get a 'first' without all of their dental treatment at a cost of having to travel, and then on to a second or even a third dental treatment in a significantly different or 'the wrong' country. Is it worth the risk?

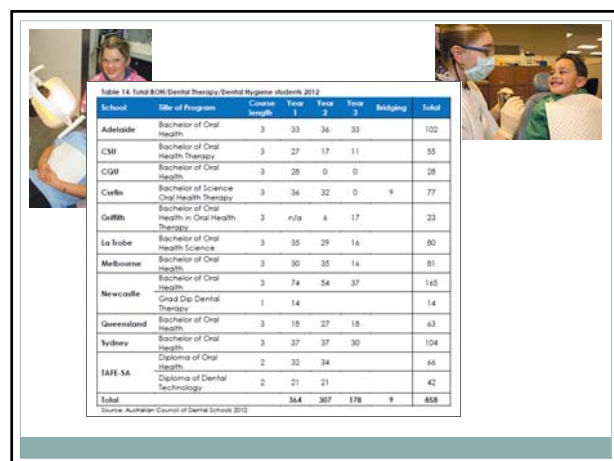
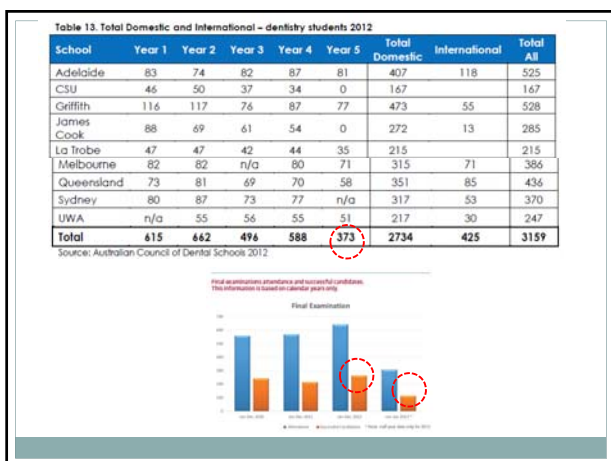
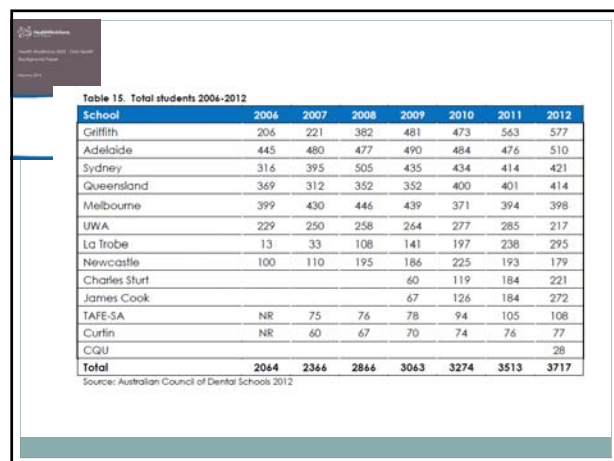
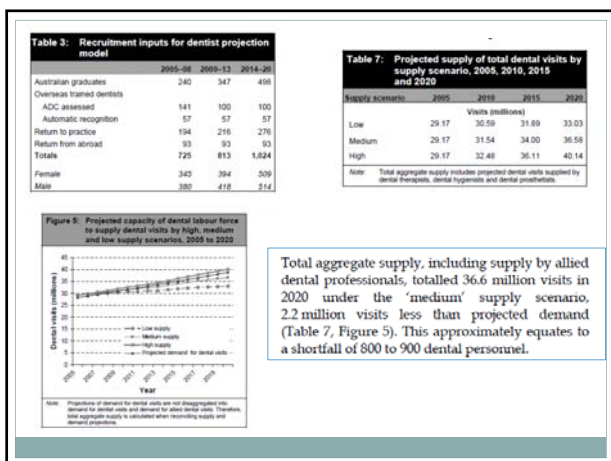
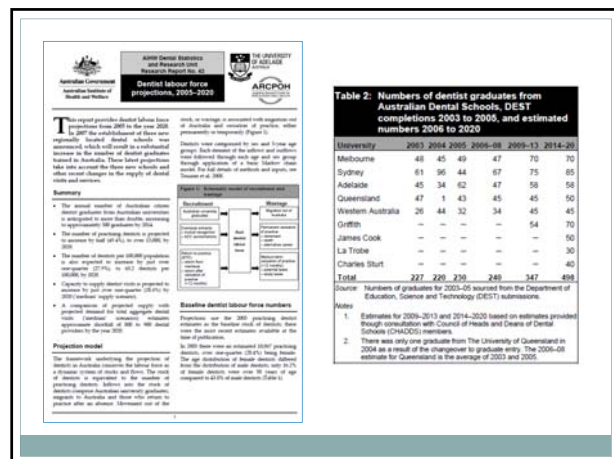
While you may have someone who has successfully undergone dental care overseas, or you are enticed by the potential savings, you should know that there are some very serious risks.

THE RISKS

Something might go wrong, even when things go so well. In the dental field, it is not always what you see that is the whole story. There are many risks involved in dental tourism, and you may not have the full picture of what is going on. You may not have the full picture of what is going on. You may not have the full picture of what is going on.

Before sending dental treatment overseas, consider the following risks:

- **Quality of care:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Cost:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Regulation:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Travel:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Insurance:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Communication:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Language:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Culture:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Religion:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Politics:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Environment:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Health:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Life:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.
- **Death:** Dental tourism can involve a high risk of infection, and you may not have the full picture of what is going on.



EXCLUSIVE

Dental schools left with holes



MEREDITH BOOTH

VACANCIES at the head of six of Australia's 10 dental schools are creating a teaching crisis that requires urgent attention.

Dental schools left with holes

EXCLUSIVE

MEREDITH BOOTH

VACANCIES at the head of six of Australia's 10 dental schools are creating a teaching crisis that requires urgent attention, a safety education council says. The search for some dentists is on at Adelaide, Melbourne, Griffith, Charles Sturt, Monash, Australia and James Cook universities and teaching in 12 dental operations of institutions across the country is suffering because of lack of expertise. Andrew Harrison, of the Australian Council of Dental Schools, yesterday told The Australian teaching vacancy situation means and an ageing workforce had created a gap of 10,000 dentists.

It was difficult to find senior dentists in a small pool of qualified Australian dentists and with that accreditation for overseas dentists, Professor Harrison said. "The heads of schools think it is a crisis. We're short on dentists and there's a small pool of appropriate people to take these positions," he said. The Dental Board of Australia provides limited supervision for visiting teachers and restorers but requires they be current clinical dentists. Professor Harrison, the retiring head of James Cook University dental school, said this requirement was prohibitive. "If overseas dentists schools are appointed, they have to be supervised," it reads in an area which could cause friction. "To send Professor Harrison over the Dental Board of Australia yesterday as a representative of the dental schools to discuss a vacancy pathway for overseas dental specialists and academics to work in Australian universities.

The Dental Board of Australia said it had to manage risk to patients by ensuring registered dentists had the skills and qualifications to provide safe care. But the board was "actively looking at the standards expected of all applicants for specialist registration," a spokesman said.

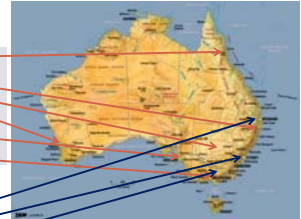
Australia's Dental Schools -

Looking for Deans

- James Cook University (QLD)
- Griffith University (QLD)
- Charles Sturt University (NSW)
- University of Western Australia (WA)
- University of Adelaide (SA)
- University of Melbourne (Vic)

Not looking for Deans

- University of Queensland (QLD)
- University of Sydney (NSW)
- La Trobe University (Vic)



THANK YOU

Japan ORH Care: - Lessons Learnt & Applications

Yupin Songpaisan
Thailand

15/10/2014

Assignment

- ❖ What have I learnt from Japan oral health care system?
- ❖ What is my advice to achieve better oral health in Japan?

15/10/2014

2

What I've learnt?

- ❖ ORH Status
- ❖ ORH Care Providers
- ❖ ORH Care Plan & Goal

15/10/2014

3

ORH Status

15/10/2014

4

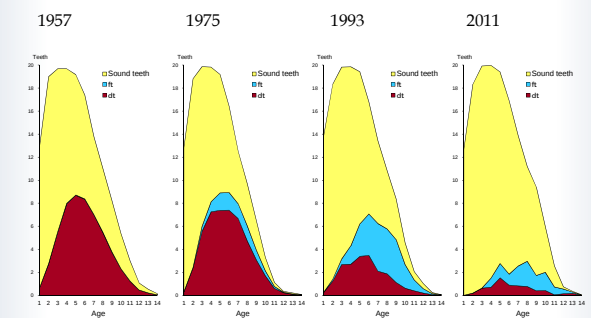
Mean dmft

Age (yrs)	Japan			Thailand	
	1975	1981	2011	1989	2012
	-30 yrs-			-23 yrs-	
1	0.6	0.3	0	-	-
3	5.5	3.9	0.6	4.0	2.7
5	8.7	7.7	2.8	5.6	4.4

15/10/2014

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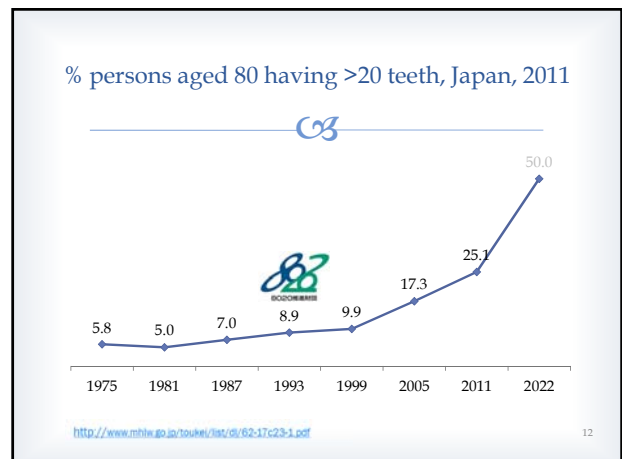
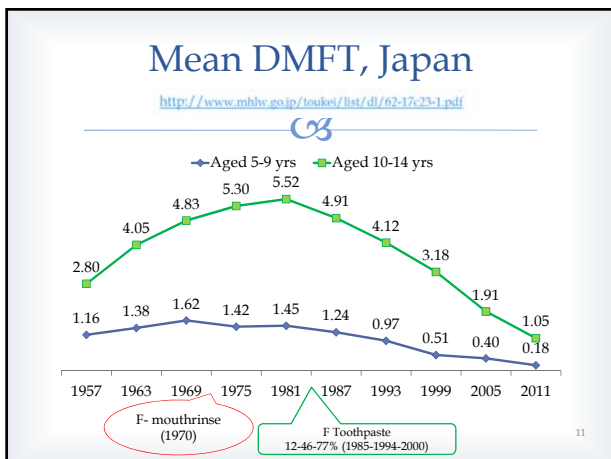
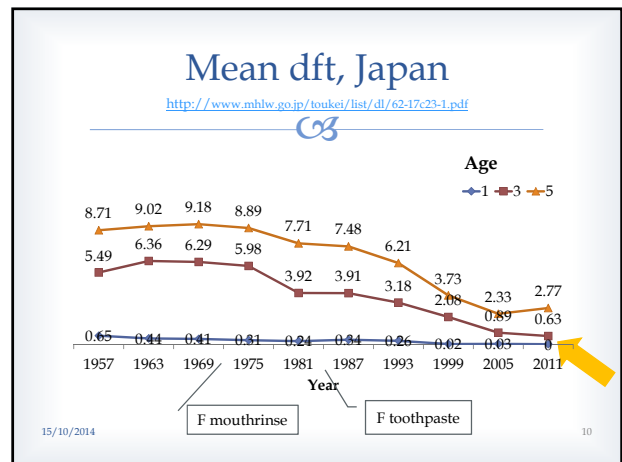
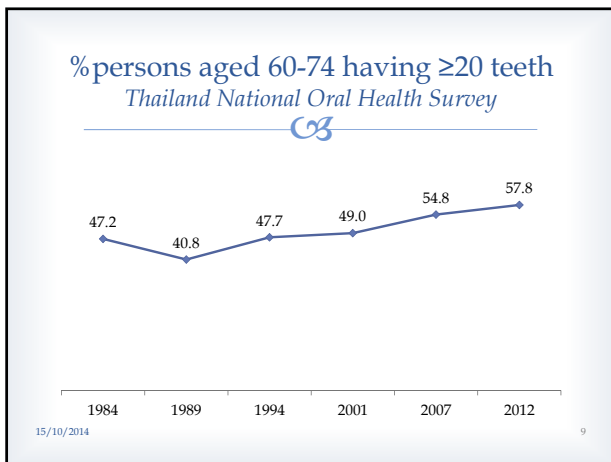
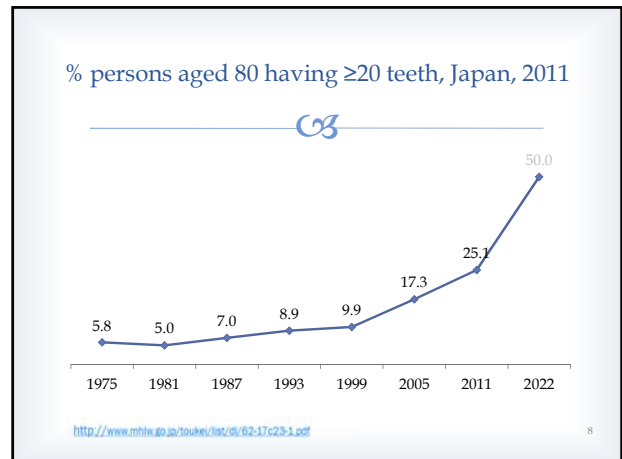
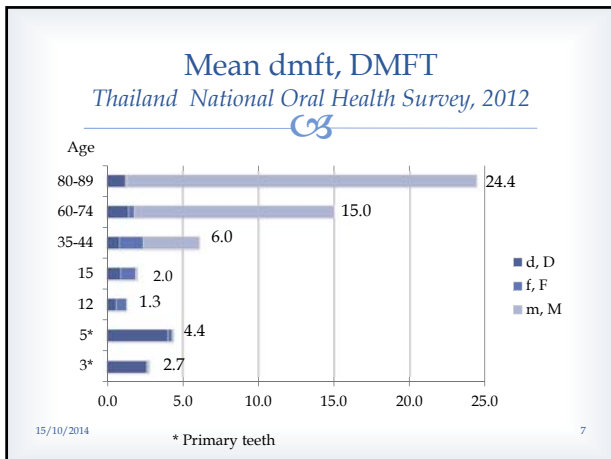
Changing pattern of deciduous teeth



15/10/2014

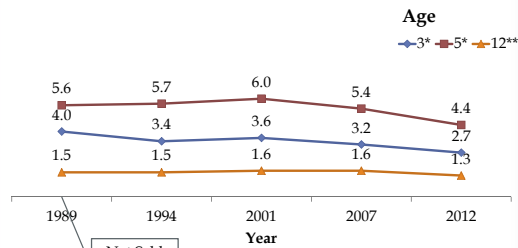
Re: National Oral Health Survey in Japan; Courtesy, Y Kawaguchi

6



Mean dft*/DMFT**

Thailand National Oral Health Survey



15/10/2014

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WHY?? HOW??

Oral health status in Japan has been dramatically improved in the past 30 years.

15/10/2014

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ORH Care Service

Providers

15/10/2014

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ORH Care Providers

	Pop (M)	Dentist	Ratio	DN	DH	DT	DA
Japan (2012)	127.6	102,551	1:1,244	-	108,123	34,613	-
Thailand (2013)	69.5	12,089	1:5749	5,360	-	98	2,170

- DN = Dental Nurse (Curative)
- DH = Dental Hygienist (Prevention)
- DT = Dental Technician
- DA = Dental Assistant (Chairside)

15/10/2014

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ORH Care Service

Access to care

15/10/2014

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%Dentist in Practice sector

Sector	Japan	Thailand
Private	86.2	49.4
Public	12.2	50.6
Distribution	Distributed nationwide	46.3% in BKK

15/10/2014

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ORH Care Service

Fee for Service

15/10/2014

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National Health Insurance

Japan

Age Group (yr-olds)	% Medical/Dental Co-payment
<3	20
3-74	30
>74	10-20

Thailand

- ☞ Public (limited access)
 - ☞ Free of charge for restoration, extraction and prophylaxis
 - ☞ Fee for service for prosthesis, orthodontic, crown & bridge, implant
- ☞ Private
 - ☞ Fee for service

15/10/2014

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ORH Policy & Goal

Japan

15/10/2014

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Based on various scientific research + public debates, the Government of Japan established-



2001-2010



HEALTH JAPAN 21

Increase 'lifestyle' related diseases	Burden	Strategy	Action
Increase bedridden and dementia in elderly	- Individuals and society - Social problem	- Improving lifestyle - Health Promotion - Disease Prevention	Primary prevention

Image of "Health Japan 21"

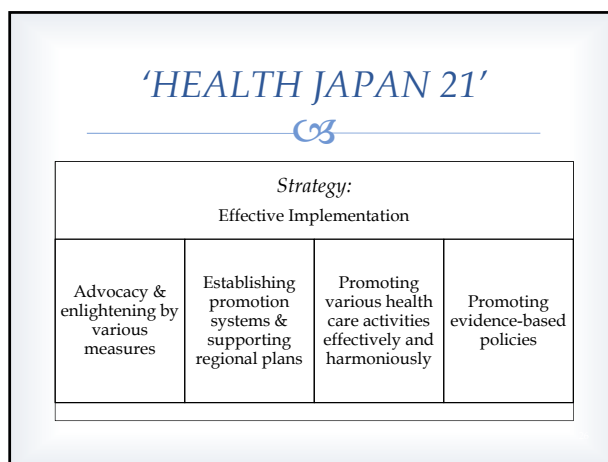
Creation of a healthy and dynamic society

Extended health expectancy
Reduction of premature deaths

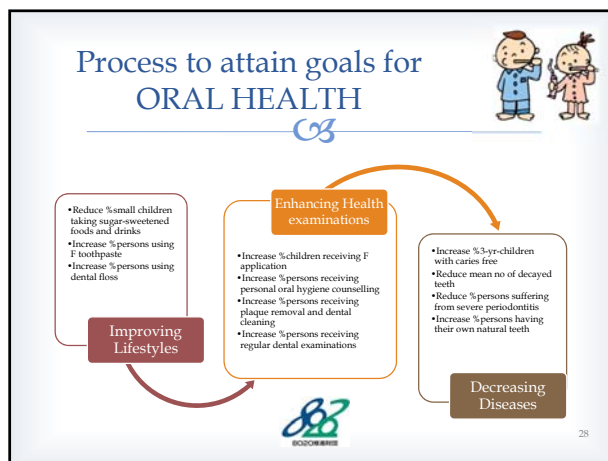
COMBINE FORCES OF INDIVIDUALS AND SOCIETY

Participation and cooperation of all
(citizens, businesses, relevant organizations, and governmental bodies)





Oral Health Promotion (New Health Frontier Strategy)						
Issues	Infants	Students	Adults	Elderly	Disable	Objectives
Dental checks under laws	At the age of 1, 3, 5 yrs (School Health Law)	Every school children once a year (School Health Law)	At the age of 40, 50, 60 & 70 (Health Promotion Law)			
Prevent Dental caries	1) Campaigns - education and home practice related to children's healthy teeth 2) Oral health education at schools 3) Educational campaigns on healthy teeth and nutrition during mixed dentition					Decrease no. of DMFT at the age of 12
Prevent Periodontal disease		1) Encourage pregnant women to prevent periodontal disease. Lifelong oral health education starting from infancy 2) Educational campaigns on the harmful of smoking tobacco to Periodontal disease 3) Educational campaigns for early detection to decrease progression of periodontal diseases				Increase % persons using dental floss or interdental brush
Provide Oral care			1) Campaigns to educate on maintaining eating and chewing functions 2) Educate about oral hygiene care for bedridden people 3) Recommend regular Oral health and denture checks and care in the elderly			Increase % persons having 20 or more teeth
	To promote research on maintaining chewing and eating functions					
	Link to "chookoku" promotion					
	Link to preventing lifestyle related diseases					
	8020 campaign					
	Oral Health Promotion - Self-care					
	Oral Health Promotion - Professional-care					



ORAL HEALTH PROMOTION ACTION

Year	Law
2002	Health Promotion Law
2000 & 2006 revision	Long Term Care Insurance Law
2007	New Health Frontier Strategy
2008	National/Prefecture Oral Health Promotion Regulation
2012	Oral Health Promotion Law

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Japanese Government Oral Health Service Plan incorporated with JDA

(<http://www.jda.or.jp/en/introduction.html>)

Activity	Group
ORH Examination & Survey	1½-3 yr-olds
	3-14 yr-olds
	Adults
	Handicapped elderly
ORH Promotion & ORH Education	Preschool & elementary school
	Adults >40 yr-olds
	"8020", Bed-ridden elderly
ORH Service	Remote area & Emergency care on holidays / night

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Japan Oral Health Promotion Goals

2nd phase 'HEALTH JAPAN 21'
(2012-2022)



Japan Oral Health Promotion Goals, 2022

Target group	Preventive strategy for
Preschool children	Dental caries
School children	Dental caries
Adults	Periodontal diseases
Elderly	Tooth loss
Handicapped & Disable	Oral Hygiene




Japan Oral Health Promotion Goals
2022

	Objectives	From	2022
9	Policy & management to promote ORH		
	- ORH examinee	34.1%	65%
	- No. of Prefecture with >80% of 3 yr-olds having caries free	6%	23%
	- No. of Prefecture with 12 yr-olds having DMFT =1	7%	28%
	- No. of Prefecture having ORH Regulation	26%	36%

Supportive Measures

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ORAL HEALTH PROMOTION ACTION

Year	Law
2002	Health Promotion Law
2000 & 2006	Long Term Care Insurance Law
2007	New Health Frontier Strategy
2008	National and Prefecture Oral Health Promotion Regulation
2012	Oral Health Promotion Law

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Promotion of Dental/Oral Health ACT
(Ministry of Health, Welfare, Labour & Japan Dental Association)

Article 1: Objectives

Article 2: Principles

Article 3: National & Local Governments Duties

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Promotion of Dental/Oral Health ACT

(Ministry of Health, Welfare, Labour & Japan Dental Association)



Article 4: Duties of Dentists, Dental Hygienist, Technician & Others

Article 5: Duties of Manufacturer & Businessmen in Maintaining & Promotion Of Oral Health

Article 6: Duties of People

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Promotion of Dental/Oral Health ACT

(Ministry of Health, Welfare, Labour & Japan Dental Association)



Article 7: Dissemination of Oral Health Education

Article 8: Recommendation: Periodically Oral Health Checkup

Article 9: Ensure that Disable Persons Receive Regular ORH Service

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Promotion of Dental/Oral Health ACT

(Ministry of Health, Welfare, Labour & Japan Dental Association)



Article 10: Actions in Preventing Oral Diseases

Article 11: Promotion of Studies & Research in Oral Health

Article 12: Development of Basics Matters related to Promotion of Oral Health

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Promotion of Dental/Oral Health ACT

(Ministry of Health, Welfare, Labour & Japan Dental Association)



Article 13: Develop Policy and Goal

Article 14: Financial Actions

Article 15: Oral Health Activity @ Health Centers

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Japan



- ❖ A highly structured, morality and traditional society.
- ❖ Loyalty, politeness, personal responsibility, everyone working together for the good of the larger group.
- ❖ Education, ambition, hard work, patience and determination
- ❖ Self-discipline, hygienic concern, perfection with a worthy goal.

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Congratulation for Success



- ❖ Combination forces of individuals & society
- ❖ Participation and cooperation of all (citizen, business, manufacturer, JDA, central & local governmental bodies, education & research institutes
- ❖ Public-private partnerships (private dentists cooperatively work with public policy)
- ❖ Nationwide distributed oral health infrastructure covering everybody in all groups of population

15/10/2014

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Change perceptions



- ❖ Change public perceptions
 - Self care, regularly seek dental treatment and check-up
- ❖ Change policymakers' perceptions.
 - Oral Health Promotion ACT
 - Professional Organization (JDA)
- ❖ Change oral health providers' and manufacturers' perceptions.
 - Private-Public mix, cooperatively work with public policy
 - Development of appropriate dental supplies

15/10/2014

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Assignment



- ❖ What have I learnt from Japan oral health care system?
- ❖ What is my advice to achieve better oral health in Japan?

15/10/2014

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Next moves for Better Oral Health



15/10/2014

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Education



- ❖ Education philosophy
 - "Oral Physician" coping with oral-health-related quality of life
 - Global oral health education and practice dealing with inequalities and disparities
 - Interprofessional education and collaborative practice to underpin the global (oral) health workforce.
(http://www.who.int/hrh/resources/framework_action/en/)

15/10/2014

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Education



- ❖ Reorient, re-educate that prevention is the prime oral health care strategy supported by only inevitable treatment
- ❖ Assimilate evidence-base dentistry and translational research

15/10/2014

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Education



- ❖ Learning methods
 - Adult Learning Philosophy to improve currently essential skills
 - Global classroom – sharing learning environments by transferring credit
 - Tele-classroom – sharing expertise and knowledge

15/10/2014

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Oral Health Care



- ❖ Evidence-based practice, apply science effectively to improve oral health
- ❖ Risk assessment approach
- ❖ Early diagnosis of oral disease i.e. identify non-cavitated carious lesion for effective preventive approach of dental caries

15/10/2014

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Oral Health Care



- ❖ Minimum or non-invasive treatment strategy using environmental friendly materials and instrument
- ❖ Preventive oriented treatment strategy
- ❖ Oral health team/workforce is the key providers

15/10/2014

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Oral Health Care



- ❖ Change perceptions to be preventive approach of
 - Oral health insurance policy
 - Oral health improvement as Key performance index of ORH personnel/care institute
 - More reward for preventive practice of both care receivers and care providers

15/10/2014

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NOW or NEVER



*Collaboratively move
by national and international forces*

15/10/2014

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References:



- ❖ Japan Dental Association. (<http://www.jda.or.jp/en/>)
- ❖ Japan Dental Association. ACT concerning the Promotion of Dental and Oral Health. <http://www.jda.or.jp/en/concerning.html>
- ❖ 8020 Campaign. <http://www.mhlw.go.jp/english/wp/wp-hw5/dl/23010221e.pdf>
- ❖ Thailand National Oral Health Surveys; http://www.anamai.ecgates.com/news/news_detail.php?id=760

53

Acknowledgement



- ❖ Niigata University Faculty of Dentistry
 - ✓ Prof Hideo Miyazaki
 - ✓ Assoc/Prof Hiroshi Ogawa
 - ✓ Asst/Prof Yurina Ogawa
- ❖ Tokyo Medical and Dental University
 - ✓ Prof Yoko Kawaguchi

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Yatoko Park, Niigata, Oct 2013

Thank you

55

“Oral Health Promotion in Thailand”
(Dr. Thongchai Vachirarojpisan, Lecturer, Chulalongkorn University)

Dental Public Health in Thailand

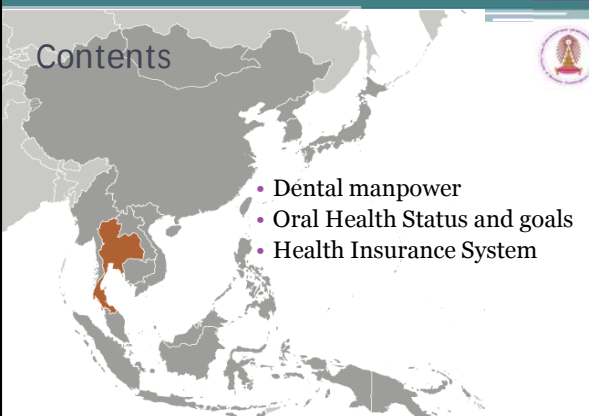
Oral Health Promotion Seminar at TMDU 2014

Thongchai Vachirarojpisan
DDS, MA, PhD
E-mail: vthongch@yahoo.com

 Faculty of Dentistry
Chulalongkorn University,
Bangkok, Thailand

Contents

- Dental manpower
- Oral Health Status and goals
- Health Insurance System



Dental personnel in 2013

Type	Number	Ratio (personnel per population)
Dentist	11,607	Bangkok 1: 1,039 The other area 1: 9,563 Whole country 1: 5,533
Dental nurse	4,164	Whole country 1: 10,425
Dental hygienist (2009)	52	
Dental assistant (2009)	1,809	
Dental technician (2009)	100	

Dental school

- 10 Government dental school (+1)
- 2 Private dental school (+1-2)
- About 800-1,000 dental student enrollment/year (1,200 in future)
- 6-year curriculum
- National dental license examination take place in year 3 and 6 of curriculum

The first dental school in Thailand was established in 1940 at Chulalongkorn University



Faculty of Dentistry Chulalongkorn University






Dental nurse school

- 1st Dental nurse school in 1967
- Modified from school Dental Nurse model, New Zealand
- Treatment only in children and work in community hospital
- Change the role to simple treatment for adult due to the lack of dentist in rural area
- 2 years and 4 years training program
- 7 dental nurse schools
- About 300 student enrolment/year
- Produce 1,500 dental nurse in 2013 and plan for 4,000 dental nurse in 2017




Dental Nurse

- No dental nurse license
- Work only in government hospital
- Work under dentist
- Dental health education and dental public health
- Treatment work
 - Injection (only infiltration in curriculum)
 - Simple filling
 - Simple extraction (only primary teeth in curriculum)
 - Scaling in gingivitis case

Propose of dental manpower

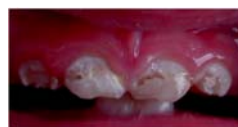
- Limit of the enrolment of dental student
- Control of the number of dental school
- Solve the dentist distribution problem
- Change the role of dental nurse to focus on disease prevention and health promotion
 - Early detection, Risk approach prevention, non-invasive treatment, maintenance treatment
 - Community approach skill and dental public health work
- Provide dental nurse licence for work with dentist in private or government setting

Oral health status and goals

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

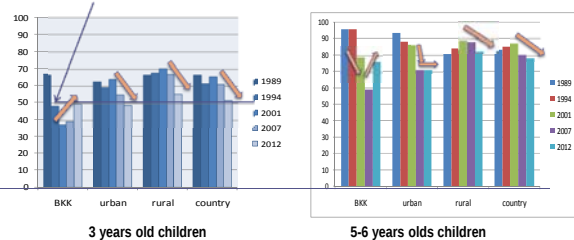
Oral health status and goal(1) Caries in primary teeth

Age	Status	2001	2007	2012	Goal 2020
3 yrs	% caries free	33.3	38.4	48.3	50
5-6 yrs	% caries free	12.5	19.4	21.5	-



Trend of Dental Caries in 1989-2012

Thailand Oral Health Goal 2020 :
50% caries free

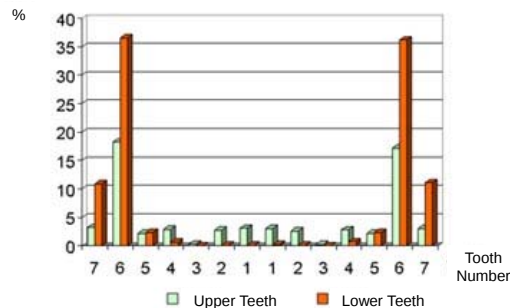


The greatest burden of dental caries is on the disadvantaged and poor population group

Oral health status and goal (2) Caries in permanent teeth

Age	Status	2001	2007	2012	Goal 2020
12 yrs	DMFT	1.64	1.55	1.3	-
	% caries affected	57.3	56.9	52.3	-
	% tooth loss	5.4	5.4	3.9	0

Caries distribution by teeth in 12 years old children



Oral health status and goal (3) Gingival health

Age	Status	2001	2007	2012	Goal 2020
18 yrs	% healthy gingival	4	14	-	>40
35-44 yrs	% periodontal pocket (CPI code 3,4)	37	38	16	<20

Oral health status and goal (4) Functional teeth

Age	Status	2001	2007	2012	Goal 2020
60 yrs	% having 20 functional teeth	49	55	57.8	80
	% no teeth (edentulous People)	8.2	10.8	7.2	-

Summary of oral health status

- Severe situation of dental caries in young children but gradually improve especially in rural area
- High prevalence of caries first permanent molar in 12 year old children
- Gingivitis in teenager
- Uncontrolled periodontal disease in adult
- High percentage of tooth loss in elderly (from periodontal disease)

Health Insurance System

Year	Scheme	Target population
1975	Medical Welfare Scheme (MWS) and Health Card Scheme	to protect the poor
1980	Civil Servant Medical Benefit Scheme (CSMBS)	for government employee
1990	Social Security Scheme (SSS)	for formal sector employees

- Cover 70% of the total population

Present Health insurance system

Year	Scheme	Target population
1980	Civil Servant Medical Benefit Scheme (CSMBS)	for government employee
1990	Social Security Scheme (SSS)	for formal sector employees
2001	Universal Coverage Scheme	All uninsured in other scheme

- All Thai cover by one of three systems.
- Health is basic right of Thai citizens and use of financing mechanism to guarantee it.

Inequity in Health Care?

	CSMBS	SSS	UC
population	5 M	10 M	47 M
Source of funding	Government tax	Tri -party	Government tax
Expenditure/head	11,000 Baht	2,133 Baht	2,100 Baht
Providers	Government hospital	Selected government or private hospital	Mainly government hospital
Payment	OPD: Fee for services IPD: DRG	Capitation	OPD: Capitation IPD: weight DRG
Benefit (Dental)	Filling, Scaling, Extraction, Root canal treatment	Limited treatment fee Filling, Scaling and Extraction 600 B/Yrs Denture 1,500B/5 Yrs CD 4,400B/5 Yrs	Filling, Scaling, Extraction Pulpotomy & Pulpectomy Denture and CD Sealant, Fluoride application

Ministry of public health policy on health insurance system

- Problem
 - Big gaps of health expenditure/person among 3 schemes
 - Different benefit package
 - Different financial system
 - Different co-payment
- Government policy
 - Combine 3 scheme funding agency together within 2015
 - Adjust the benefit package
 - Set up National Clearing House



Thank you

“Dental Training and Dental License in Vietnam”
 (Dr. Pham Anh Vu Thuy, Lecturer,
 University of Medicine and Pharmacy in Ho Chi Minh City, Vietnam)



Tokyo Medical and Dental University
 Department of Oral health Promotion



Dental Training and Dental License in Vietnam

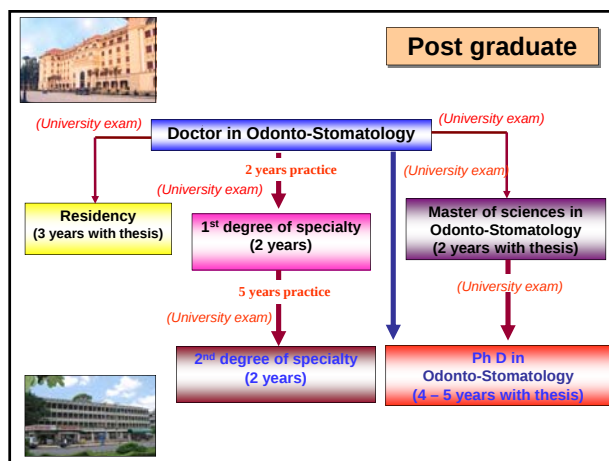
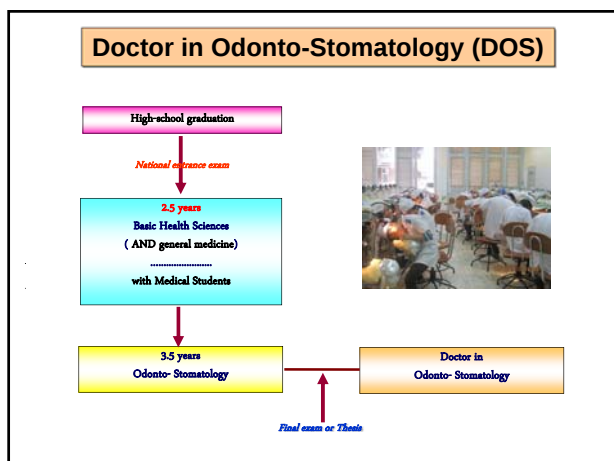
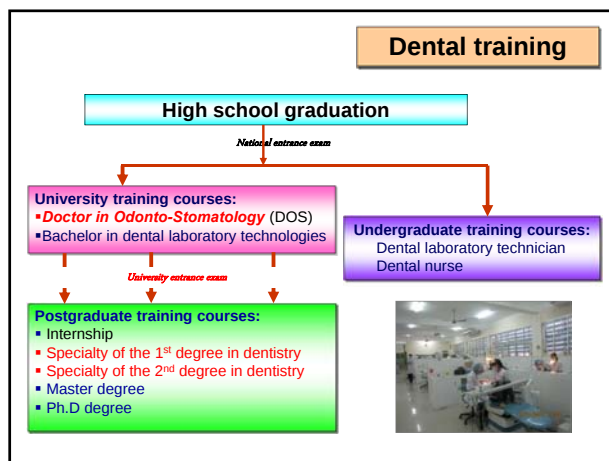
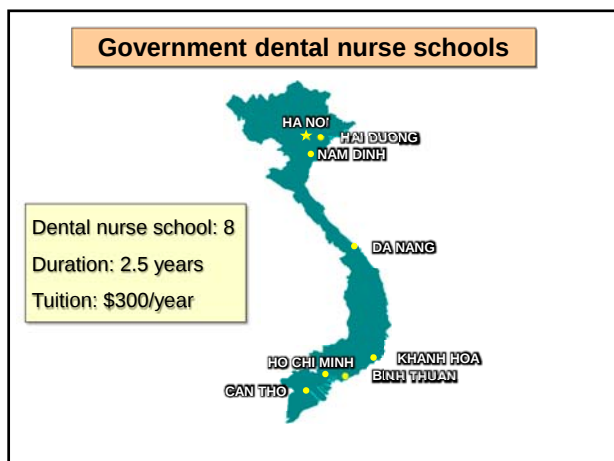
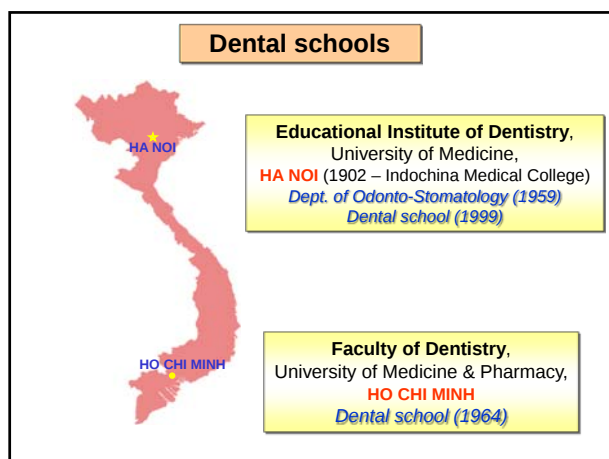
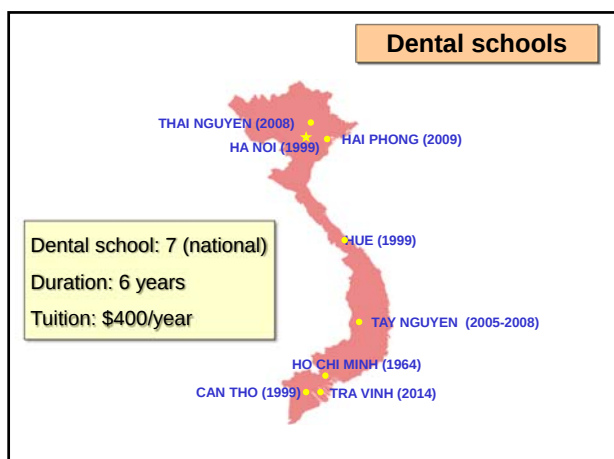


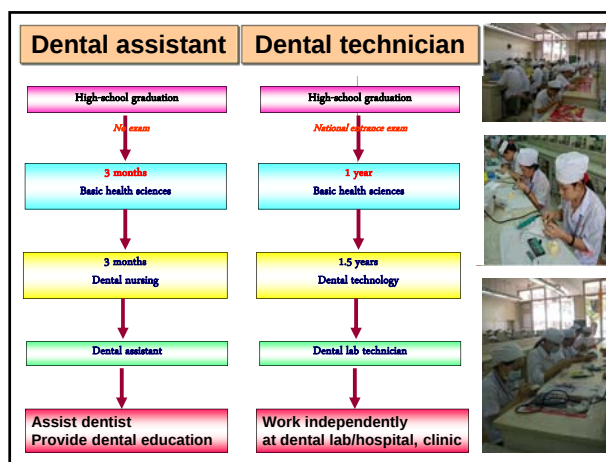
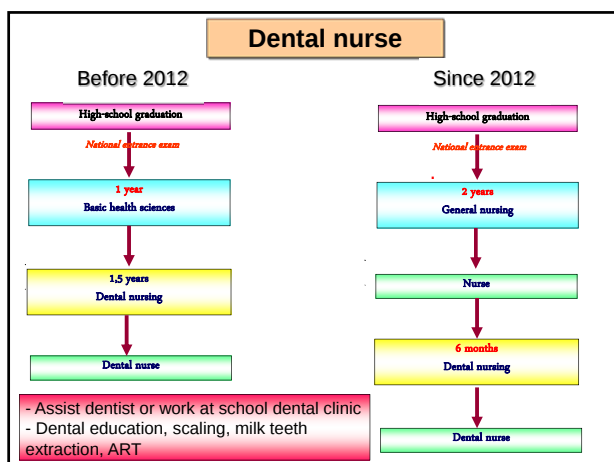
Pham Anh Vu Thuy, DDS, PhD
 Faculty of Odonto-Stomatology
 University of Medicine and Pharmacy
 Ho Chi Minh City, Vietnam



October 21, 2014







Yearly new DOS

- 100 (Ha Noi, Ho Chi Minh)
- 80 (Can Tho)
- 50 (Hue, Hai Phong)
- 30 (Thai Nguyen, Tra Vinh)
- Total: 400-500



Dental manpower

- Dentist/population: 1/50.000 (Japan: 1/1.300)
- Dental nurse/population: 1/27.000
- Dental technician/population: 1/101.000

Dental insurance

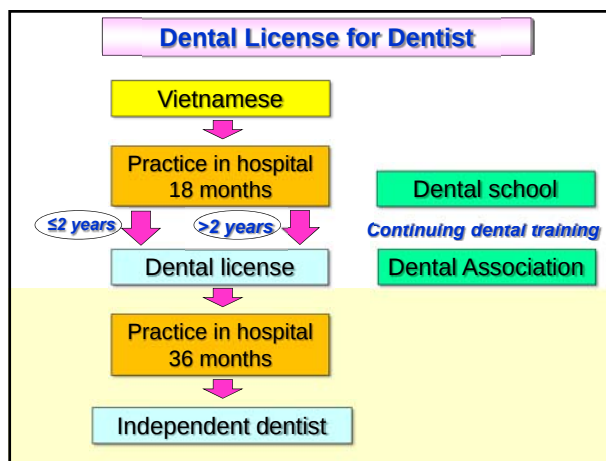
- Be included in **the National Health Insurance**
- Started from 1993; Payment: 3-4.5% of monthly salary
- Cover up to 80% of dental treatment at government hospital, clinic, health center (not for at private clinic)
- Cover the types of dental treatment except for denture, resin filling, orthodontic, dental implant
- Cover up to 100% of dental treatment for 0-6 year children and 85- year adults

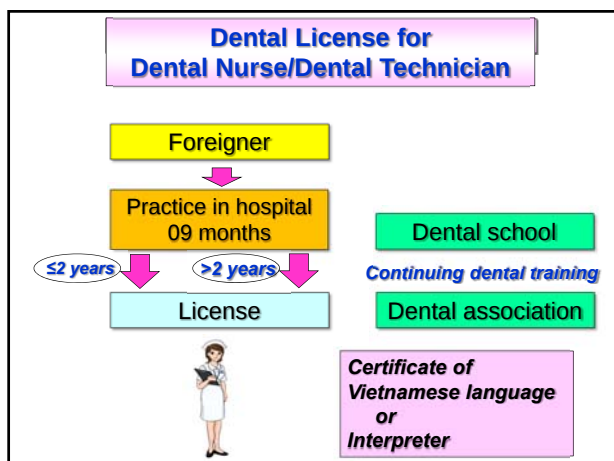
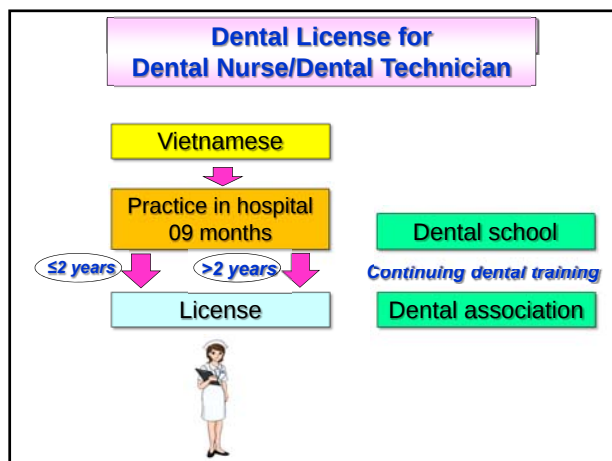
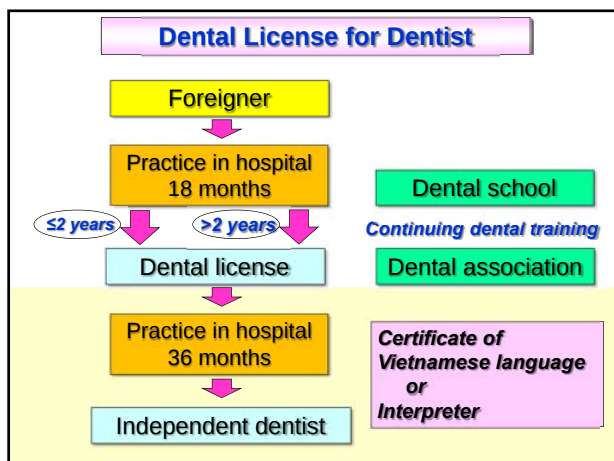
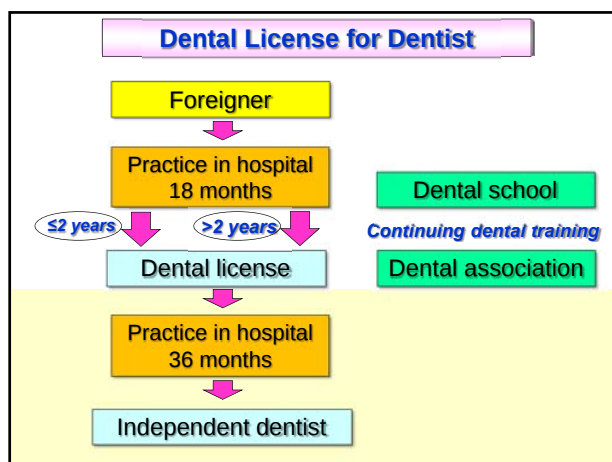
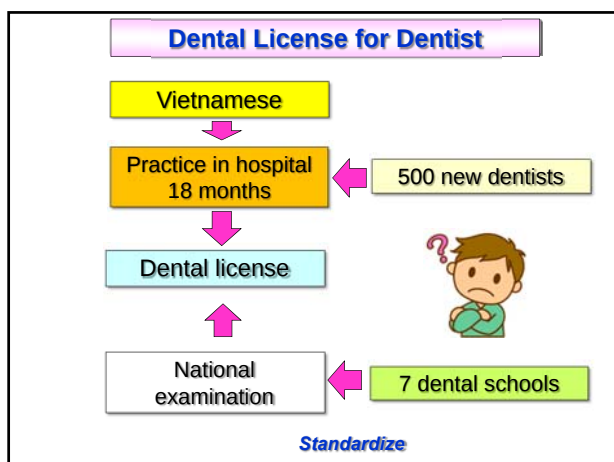
Dental insurance

Private dental Insurance

Private insurance company provides dental insurance for the company staffs.

This insurance covers various types of dental treatment but limited amount of payment every year.





Summary

- Improve the program to be more international
- Standardize the outcome of dental students each dental school
- Standardize the profile and competences for the graduating Vietnamese dentists
- Roadmap for implementation of Asian Mutual Recognition Agreement (MRA) on dental practitioners



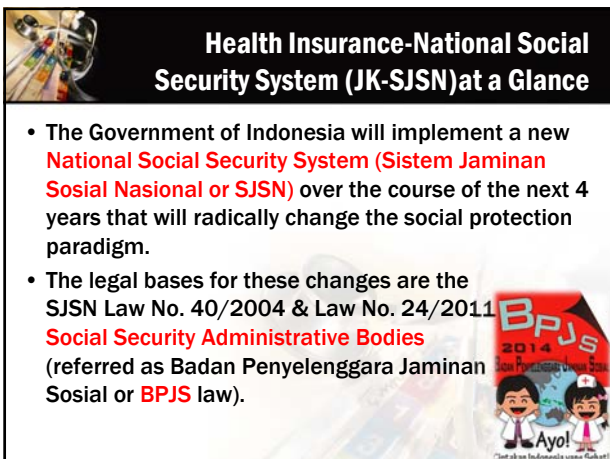
“The Road of Universal Coverage: An Indonesian Experience”
(Dr. Melissa Adiatman, Lecturer, Universitas Indonesia)



THE ROAD TO UNIVERSAL COVERAGE : AN INDONESIAN EXPERIENCE

Melissa Adiatman, DDS, PhD
Department of Dental Public Health and Preventive Dentistry
Universitas Indonesia
melle_gigi@yahoo.com

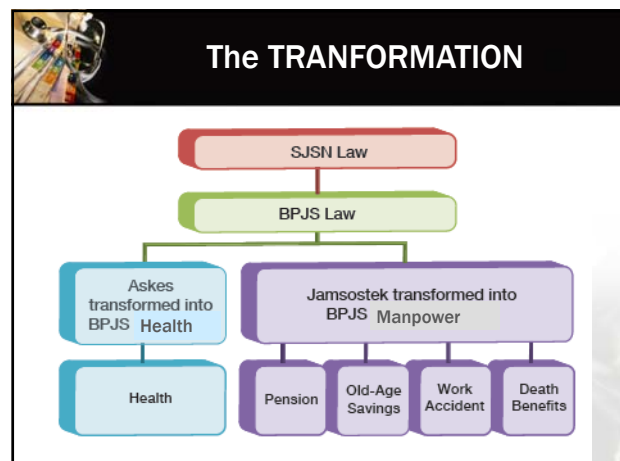
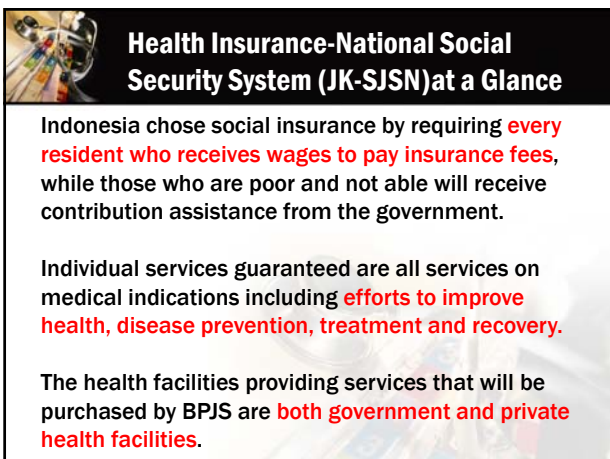
 UNIVERSITAS INDONESIA
Veritas, Probing, Justitia
1945-2015

Health Insurance-National Social Security System (JK-SJSN)at a Glance

- The Government of Indonesia will implement a new **National Social Security System (Sistem Jaminan Sosial Nasional or SJSN)** over the course of the next 4 years that will radically change the social protection paradigm.
- The legal bases for these changes are the SJSN Law No. 40/2004 & Law No. 24/2011 **Social Security Administrative Bodies** (referred as Badan Penyelenggara Jaminan Sosial or **BPJS** law).

 **BPJS**
2014
Ayo!
Cetaklah Indonesia yang Sukses!

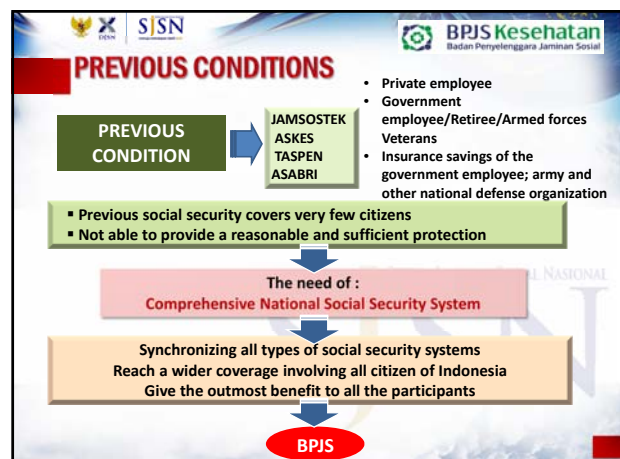



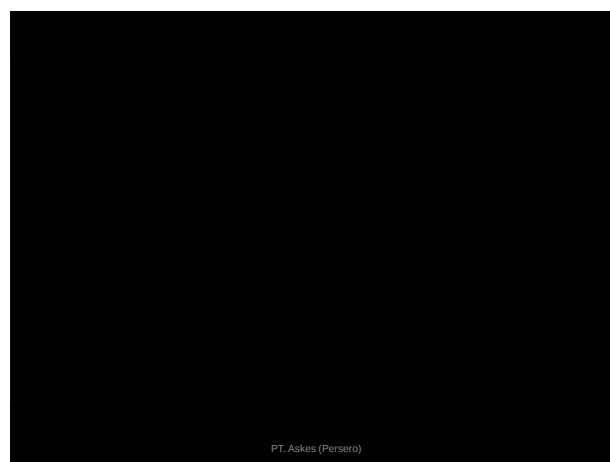
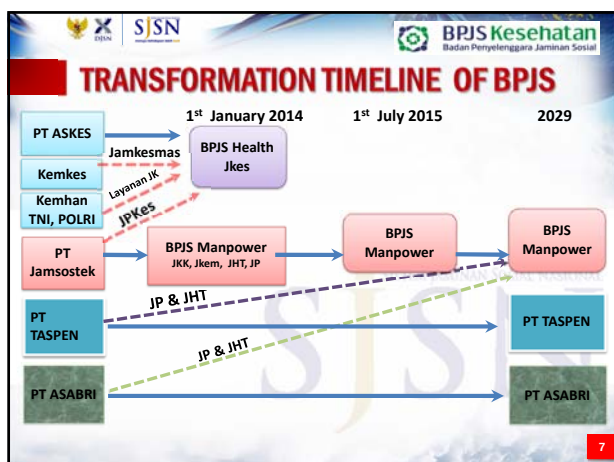
Health Insurance-National Social Security System (JK-SJSN)at a Glance

Indonesia chose social insurance by requiring **every resident who receives wages to pay insurance fees**, while those who are poor and not able will receive contribution assistance from the government.

Individual services guaranteed are all services on medical indications including **efforts to improve health, disease prevention, treatment and recovery**.

The health facilities providing services that will be purchased by BPJS are **both government and private health facilities**.





Who are the Participants of BPJS for Health?

- All Indonesian citizens **MUST** become the participants of health insurance managed by BPJS.
- This also applies to **FOREIGNERS** who have worked in Indonesia at least for 6 months and already paid health insurance fees.
- BPJS participants are divided into two groups, i.e.:**
 - Contribution Assistance Recipients (PBI)** including the poor, near poor and totally disabled persons as stipulated in SJSN Law whose contributions are paid by the government.
 - Non PBI participants**, consisting of wage workers and their family members, as well as non- wage workers and their family members.

WHO MANAGE THE IMPLEMENTATION OF BPJS Health Care?

The answer is: **PT ASKES (Persero)** which finally **TRANSFORMED** into **BPJS Health Care** starting **1st January 2014**

2013 **2014 - 2019** **UNIVERSAL COVERAGE 2019**

BPJS Healthcare

ASKES
PRIVATE Legal institution under Ministry of State Owned Enterprises previously responsible for the social-health security of government employee, armed forces, and veterans

PUBLIC Legal institution
Directly responsible to the **PRESIDENT** to manage health security for **all citizen of INDONESIA**

BPJS Health care membership and health service delivery

- The membership of Health BPJS for all Indonesian citizens is **COMPULSORY** even if they already have other health insurance. The membership of BPJS will be done gradually starting from 1 January 2014.
- Health care services for the insurance participants must pay attention to the **quality of service, patient safety, effectiveness, and comply with the needs of patients and cost efficiency.**

Health Insurance Tuition

- The rate of health insurance tuition that must be paid regularly by participants, employers, and/or the government, are as follows:
 - Rp. 22,200,-/person/month**, for participants who wish to have healthcare treatment in **class III**
 - Rp. 40,000,-/person/month**, for participants who wish to have healthcare treatment in **class II**
 - Rp. 50,000,-/person/month**, for participants who wish to have healthcare treatment in **class I**

BENEFITS of the participants and their families

Each participant is entitled to health insurance benefits that are of personal health services:

1. promotive, preventive services
2. curative and rehabilitative services
3. medicines and medical consumable materials according to the necessary medical needs.

The medical benefits **do not include family accommodation or ambulance costs**. Ambulance benefits are only given to referral patients from health facilities who meet certain conditions set by BPJS.

DENTAL TREATMENT COVERED BY THE NEW INSURANCE SCHEME

- Promotive and preventive services
- Consultation and premedication
- Tooth restoration using GIC and Composite resin
- Primary and permanent teeth extraction
- Scaling and root planing
- Dental emergencies (abscess, acute pulpitis, dental trauma, gingivitis, periodontitis)



BPJS uses CAPITATION system :

(Berdasarkan Permenkes 069/2013)

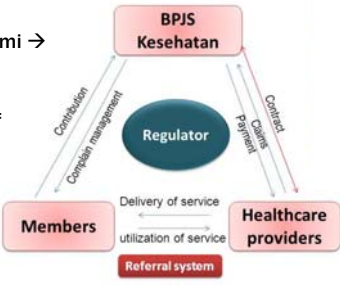
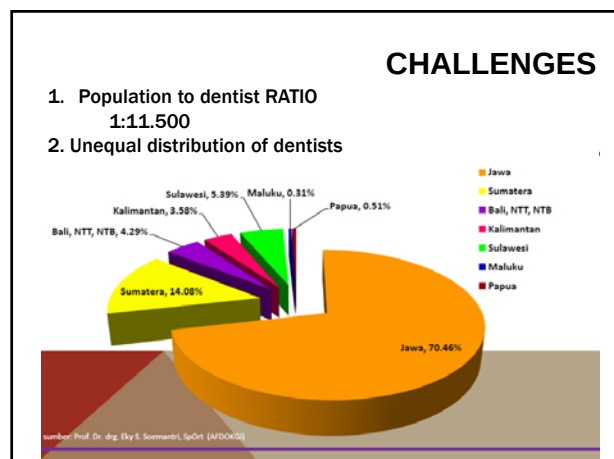
- Puskesmas : Rp. 3.000 – Rp 6.000
- RS. Pratama, Klinik Pratama, Praktek Dokter dan Fasilitas Kesehatan yang setara : Rp 8.000 – Rp 10.000
- Praktik Dokter Gigi : Rp 2.000

HOW TO COUNT?

- The capitation rate for dental treatment in primary dental care is Rp. 2.000,-
- If the health center have 10.000 members , then the fee that dentist will receive is Rp. 20.000.000 / month
- With the utilization rate 2,0%, then the possibility of patients seeking treatment at primary health center will be $2,0\% \times 10,000 = 200$ visits
- Estimated fee per visit will be $\text{Rp } 20.000.000 / 200 \text{ visits} = \text{Rp. } 100.000,-/\text{visits}$

CHALLENGES

- FUNDING vs QUALITY OF TREATMENT
- Low cost of insurance premi → minimum standard of treatment
- Minimum development of health care facilities
- Distribution of dentist on primary health center
- Everyone have access → OVER-UTILIZATION



THE LATEST UPDATE

Year 2014

- 121,6 million people become BPJS member
- 50,07 million people use other insurance company
- 73,8 million people do not use to any health insurance

Year 2019

- 257,5 million (all citizens) will become BPJS member

Does Indonesia have enough number of dentist and dental specialist?
(How about the dental manpower distribution)

ARE WE READY?



**THANK YOU**

UNIVERSITAS INDONESIA
Veritas, Probatum, Justitia
EST. 1945

"Oral Health Promotion in Space and Antarctic Environment"

(Dr. Takashi Zaitzu, Assistant Professor, Tokyo Medical and Dental University)



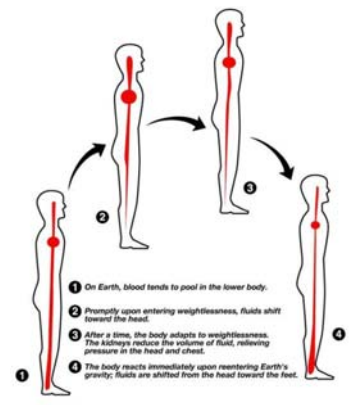


"Oral Health Promotion in Space and Antarctic Environment"

Takashi Zaitzu

1. Department of Oral Health Promotion, Tokyo Medical and Dental University, Tokyo, Japan
2. Astronaut Medical Operations Group, Japan Aerospace Exploration Agency (JAXA), Ibaraki, Japan

1

On the ground

↓

In space

Meriscope

NASA estimate the dental incidences

Condition	Incidence (in events per person-year)
Caries	0.39
Abscess (periodontal)	0.02
Exposed Pulp/ Pulpitis	0.02
Avulsion/ Tooth Loss	0.003
Crown Replacement	0.005
Filling Replacement	0.005

Oral Hygiene

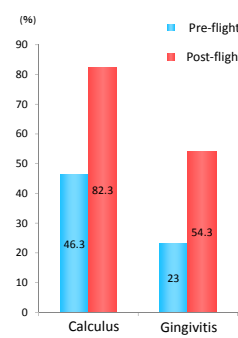
Intense sharp pain

Caries and periodontal abscess which related to **oral hygiene** were higher prevalence

※NASA Dental Working Group Meeting Summary Report, 2012

Oral Health Research in Space Flights

- Increased counts of **specific anaerobic and streptococcal components**, primarily of the saliva and dental plaque micro flora.
- Increased increments of **dental calculus and gingival inflammation** (LEE R. BROWN, SKYLAB 1974).

Periodontal disease

(LEE R. BROWN, 1974)

Oral Health Conditions in Simulated Space Environment

- Decrease of **salivary flow rate and oral function** in Six-Week Period of HDT bed rest (Rai B, 2012).
- Poor Oral hygiene** due to the **lack of motivation** in 520 isolation days experiment (Malamuzh S, 2012).
- Aggravation of **salivary stress markers** (Cortisol, CgA and Alpha-amylase) and **psychological stress** in Mars analog mission (Rai B, 2012).





↓

Decrease of Oral defensive function in the enclosed environment

6

THE ATTACK OF NASA AND JAXA

7

Medical Evaluation Documents (MED)

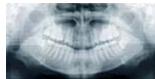
Dental Examination:

- To assess general dental health and flight readiness, identify and mitigate dental health risks, obtain baseline measurements, and address needs/ changes over time.
- Schedule: L-90/30 d (R+0/1 d FSA), and as clinically indicated



Dental Orthopantomogram:

- To fully assess the underlying dental health of the Crewmember in order to correct any potential dental problems well in advance of mission launch.
- Schedule: AME L-21/18 m



8

International Space Station Medical Checklist

- Mouth Exam
- Nerve Block
- Temporary Dental Filling
- Dental Crown Replacement
- Exposed dental Pulp
- Loss of tooth
- Tooth Pain



Figure 4. Physical, Dental, Surgical Supply and Blood Analyzer Packs

ISS CHECS Medical Hardware Catalog, 2011

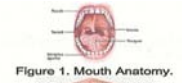


Figure 1. Mouth Anatomy.

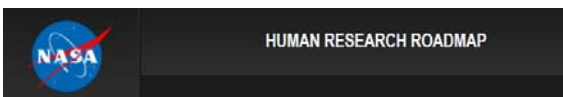


Figure 2. Tooth Numbering.



Figure 3. Tooth Anatomy.

9



ExMC 4.11: Limited dental care capabilities

Description

Dental conditions have occurred during space flight, and predictive models indicate that dental problems will be of concern for individuals during long duration, exploration missions. The limited medical skills of the Crew Medical Officers (CMOs), the minimal medical resources currently certified for space flight, and the lack of evidence-based guidelines for the diagnosis and treatment of the dental conditions of concern, suggest that the current dental care capabilities may not be sufficient for diagnosing and treating dental problems in the space flight environment. This gap seeks to address the current lack of dental care capabilities through the development of new methods and technologies for the diagnosis and treatment of the identified dental conditions.

Relevant SMEML conditions include: Caries, crown replacement, filling replacement, pulpitis, abscess, and tooth avulsion and loss.

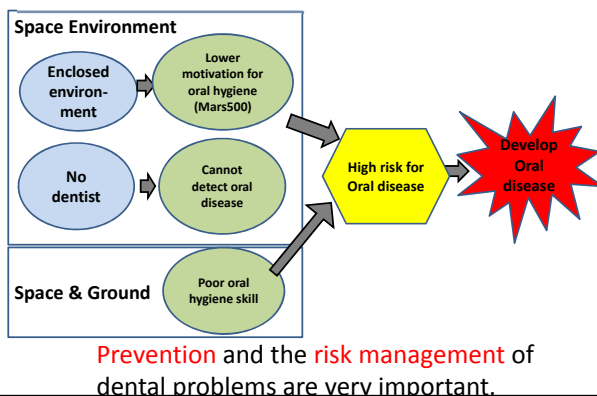
Oral Health Management for astronauts is not established enough!

10

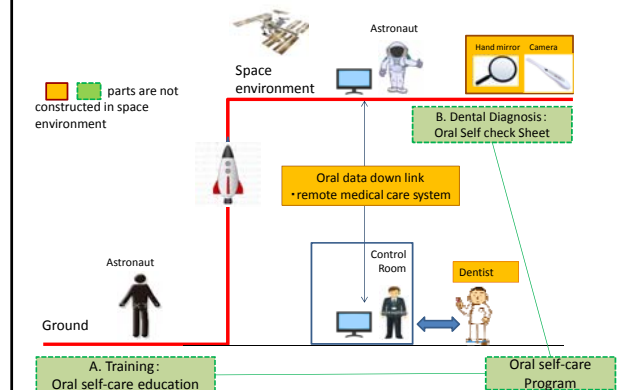
THE CHALLENGE OF SPACE DENTISTRY

11

Oral Disease Mechanism in Space



Oral care program in space





THE RESEARCH IN ANTARCTIC

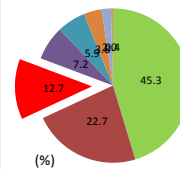
15

An epidemiological survey on the wintering term personnel of the JARE

Totally 4,233 illnesses and injuries, an overall rate of 3.8 cases per member during wintering of 12 months were reported (1956–1999).
(Ohno G, et al., Antarctic Record, 2000)

Distribution of consultation by medical field indicate

1. Surgical and Orthopedic (1919 cases, 45.3%)
2. Internal Medical (936 cases, 22.7%)
3. **Dental problems (536 cases, 12.7%)**



Dental Problems

Crown dislocation	200 cases
Dental caries	118 cases
Periodontitis	116 cases
Root canal disease	39 cases
Injury	20 cases
others	43 cases

The countermeasures for oral problems in the Antarctic environment

○Insufficient investigation of dental problems

Investigate the dental risk and oral health behavior

○The absence of a dentist in Showa station

A dental training program for the attending doctor
Construction of dental telediagnosis system

A dental training program for the attending doctor

Also in the past, a dental training program for the attending doctor was conducted.

However, it was **just observation**, and **the contents were too difficult** for the medical doctor to acquire in **short period**.



- Change of the contents to acquire easily
- Enhancement of the training time
- Hands-on training program

A dental training program for the attending doctor

1. Selection of dental material and instrument



2. Training program in Tokyo Medical and Dental University



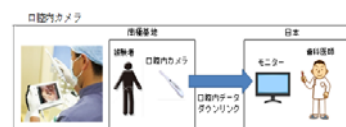
3. Provide dental training manual

19

Dental telediagnosis system

1. Remote dental diagnosis and treatment

- The dentist at remote location diagnoses the member of JARE with Dental-eye (Panasonic), if the member have some dental symptom.
- The attending doctor treats the member with instruction of the dentist.



Dental telediagnosis system

2. Remote Regular dental checkup system

- Intraoral photograph
 - PMA Index
 - Tongue
- The risk assessment of oral disease (Bacterial counter, Perioscreen)



Bacterial Counter (DU-AA01NP-H)

Measure the oral bacterial count in 1 minutes



Perioscreen

Perioscreen is used to detect hidden blood in saliva which affect for periodontal disease



Salivary Multi-test System (under development)

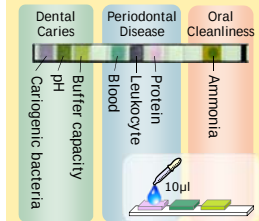
Test Sample

Oral rinse sample (3ml-DW, 10sec rinse)



Test Strip

7 pads, which check 7 saliva analytes for dental caries, periodontal disease and oral cleanliness, are on a test strip.



Measuring Device

This device detects color changes in each pad and measure the reflectance by specified wavelength.



Reflectance (%)
Color change
Saliva (Oral rinse sample)
Test strip

Results Sheet

The reflectance is graded into 2 or 3 levels, and shown by cobweb chart.



Lion Corporation

Conclusion

- Oral health is important and developing in space and Antarctic environment.
- The countermeasures for the special environment will contribute to the medical care in remote area and disaster medicine in the future.

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“Space medicine is ultimate preventive medicine”



“Space dentistry is ultimate preventive dentistry”



Astronaut
Chiaki Mukai

24

*"The better oral health,
happier daily life"*



“Prevalence and Associating Factors of Oral Malodor in Malaysia”
(Dr. Haslina Rani, Tokyo Medical and Dental University)

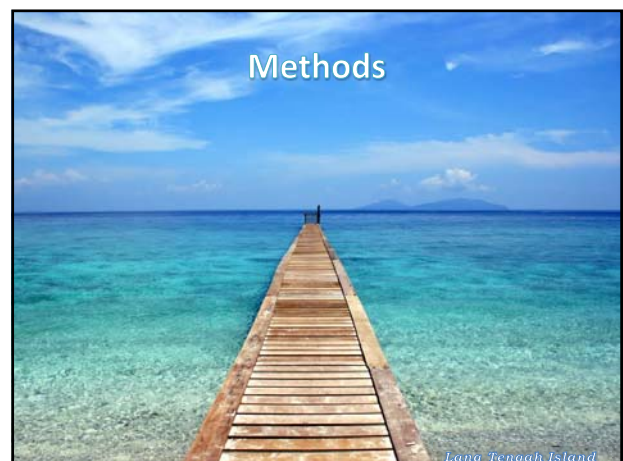


Research Objectives

To determine

1. The prevalence of clinical and self-perceived oral malodor
2. Factors associated with oral malodor

among Malaysian dental students

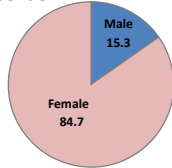


Subject	• Dental students • No fever, cough or other infectious disease
Questionnaire	• Demography • Perception of self-oral malodor
Malodor measurement	• Refrain from eating, drinking, smoking and cleaning their mouth including tooth brushing and gargling at least 2 hours before • Organoleptic test • 0-1: No Clinical Oral Malodor • 2-5: Clinical Oral Malodor • Oral Chroma™ measurement H₂S, CH₃SH, (CH₃)₂S
Oral examination	• Dental caries, periodontal status, tongue coating, salivary flow

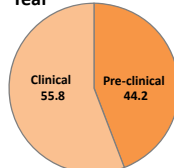


Research Subjects

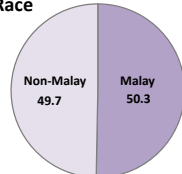
Gender



Year



Race



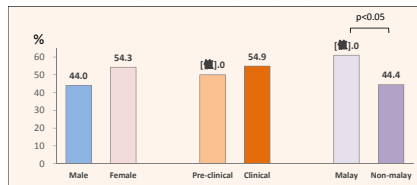
- Final number of data analyzed was 163 students
- Mean age was 21.1 ± 1.8 years old

Clinical and Self-Perceived Oral Malodor

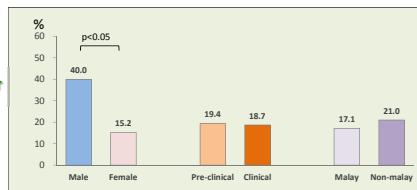
- Total students with **clinical** oral malodor (organoleptic score ≥ 2) was **52.7%**
- Total students who **perceived** they had oral malodor was **19%**
- Sensitivity of self-perceived oral malodor was 0.244
- Specificity of self perceived oral malodor was 0.870

Oral Malodor by Demography

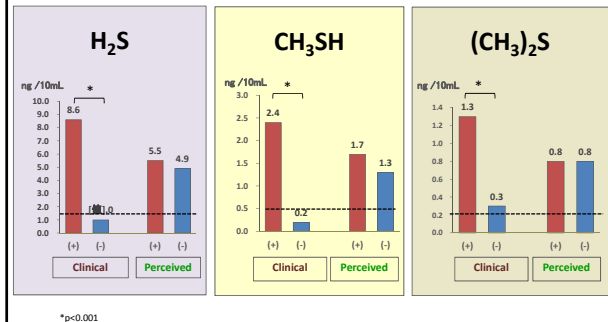
Clinical oral malodor



Perceived oral malodor



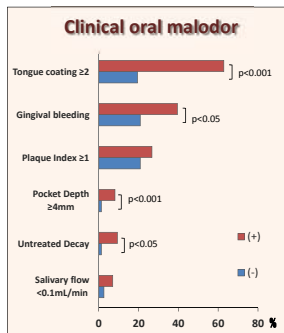
VSCs Concentration



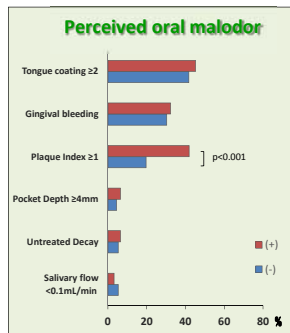
*p<0.001

Oral Health Status & Oral Malodor

Clinical oral malodor



Perceived oral malodor



Logistic Regression on Clinical Oral Malodor

Explanatory variable	n	OR	p-value
Gender	Male (reference)		
	Female	1.218	0.727
Year	Pre-clinical (reference)		
	Clinical	1.892	0.112
Race	Non-Malay (reference)		
	Malay	1.358	0.447
Untreated Decay	No (reference)		
	Yes	3.954	0.252
Tongue coating	< 2 (reference)		
	≥ 2	7.103	< 0.001
Pocket Depth	< 4 mm (reference)		
	≥ 4 mm	5.261	0.149
Bleeding on probing	No (reference)		
	Yes	2.046	0.096
Plaque Index	< 1 (reference)		
	≥ 1	1.130	0.795
Salivary flow	> 0.1 mL/min (reference)		
	< 0.1 mL/min	0.422	0.123

Logistic Regression on Perceived Oral Malodor

Explanatory variable		n	OR	p-value
Gender	Male (reference)	25		
	Female	138	0.254	0.011
Year	Pre-clinical (reference)	72		
	Clinical	91	0.939	0.889
Race	Non-Malay (reference)	81		
	Malay	82	1.147	0.773
Untreated Decay	No (reference)	154		
	Yes	9	1.109	0.909
Tongue coating	<2 (reference)	94		
	≥2	69	1.174	0.714
Pocket Depth	<4mm (reference)	155		
	≥4mm	8	0.927	0.937
Bleeding on probing	No (reference)	113		
	Yes	50	0.988	0.979
Plaque Index	<1 (reference)	124		
	≥1	39	2.791	0.030
Salivary flow	≥0.1mL/min (reference)	155		
	<0.1mL/min	8	0.317	3.483

Discussion



- About 20% students perceived they had oral malodor but in reality more than half (52.7%) students had clinical oral malodor. Low sensitivity of self-perceived oral malodor (0.244) suggested that perceived oral malodor was not reliable in predicting clinical oral malodor.
- High prevalence of clinical oral malodor among dental students may be explored by researching its association with stress that are reportedly common among dental students.
- All items of oral health status except plaque index and salivary flow were associated with clinical oral malodor, but only plaque index was associated with perceived oral malodor.
- Contrary to past researches among patients attending malodor clinic, more males are concerned about their oral malodor than females.

Conclusion



- Clinical oral malodor was prevalent among dental students though not many perceived they had the problem.
- Oral health status especially tongue coating was closely associated with clinical oral malodor among dental students.
- Gender and plaque index were associated with self-perceived oral malodor.
- It is essential to educate and instill awareness in dental students regarding discrepancies between clinical and perceived oral malodor.



“Effectiveness of Oral Hygiene Regimens on Oral Malodor Reduction in Myanmar People”
(Dr. Ei Ei Aung, Tokyo Medical and Dental University)

**Effectiveness of oral hygiene regimens
on oral malodor reduction in
Myanmar people**



Ei Ei Aung, Takashi Zaitu, Masayuki Ueno, Yoko Kawaguchi
Department of Oral Health Promotion
Graduate School of Medical and Dental Sciences
Tokyo Medical and Dental University

Background

- Oral malodor is a trouble problem for large population over the world. (average 30%-50%)
- Most causes 80%-90% are intra-oral causes such as
 - periodontal disease
 - tongue coating
 - poor oral hygiene
 - dry mouth (xerostomia)
- The rest is extra-oral problems.



- Oral malodor affects social interactions in peoples' daily life.
- The main causative substances of oral malodor are **volatile sulfur compounds (VSCs)**.
- The primary source of the VSCs production is **tongue coating** on the dorsum of the tongue.
- Oral malodor can be diminished by reducing the amount of food debris or causative bacteria in oral cavity as well as by converting VSCs to nonvolatile ones.



Objective

To assess the effects of different oral hygiene regimens

- tooth brushing**
- mouth washing** (chemical method)
- tongue cleaning** (mechanical method)

Individually and in combination on oral malodor reduction.

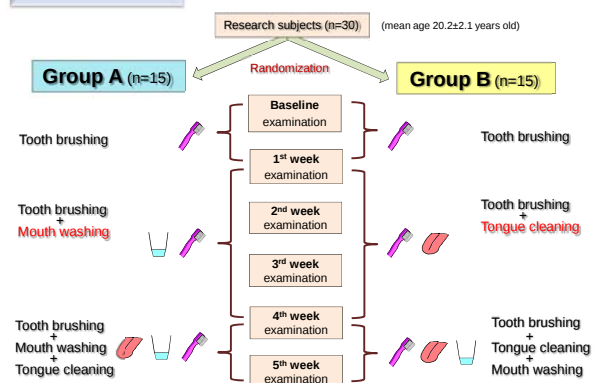


Subjects characteristics

- This study was conducted in Yangon, Myanmar.
- Thirty **male monk** volunteer participants with the mean age of 20.2 years old were matched with the inclusion criteria.
- All subjects lived in the same place as full time monk school residents and had similar life style including content, time and frequency of meal.
- Little influence of diet or eating habits in present study's subjects.



Study design



Materials and methods

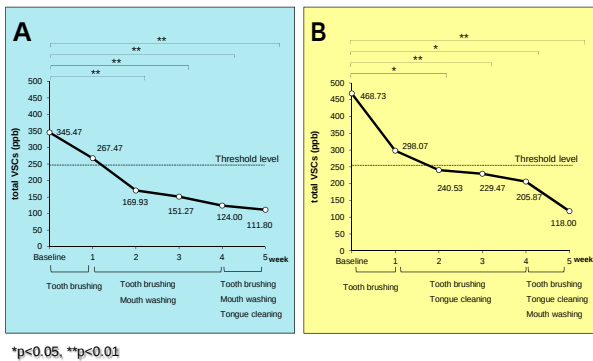
- Tooth brushing with a scrubbing method.
- Mouth washing with 12 mL of chlorine dioxide, CLO₂ Fresh® mouthwash two times per day.
- Tongue cleaning with small toothbrush also two times per day without toothpaste.
- Oral health status
 - Present teeth, DT, FT, MT
 - Saliva characteristics.
 - Debris index scores, Bleeding on probing, Tongue coating
- Total volatile sulphur compounds (VSCs) was measured by Breathtron®.

Results

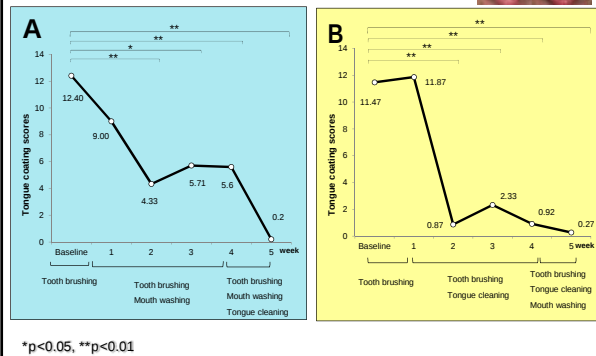
Baseline characteristics

Variables	Group A	Group B	p value
Present teeth	27.6±0.5	27.9±0.4	0.11
Decay teeth	0.1 ±0.4	0.0 ±0.0	0.16
Filling teeth	0.1 ±0.3	0.0 ±0.0	0.33
Missing teeth	0.4 ±0.5	0.1 ±0.4	0.11
Saliva flow rate (mL/min)	0.58 ±0.19	0.48 ±0.17	0.14
Saliva pH	7.00 ±0.39	7.05 ±0.40	0.75
VSCs (ppb)	345.5± 87.5	468.7 ±244.4	0.08
Debris index	0.83 ±0.20	0.89 ±0.24	0.47
Bleeding on probing	12.5± 7.6	12.1± 8.9	0.90
Tongue coating	12.4± 4.2	11.5± 5.2	0.59

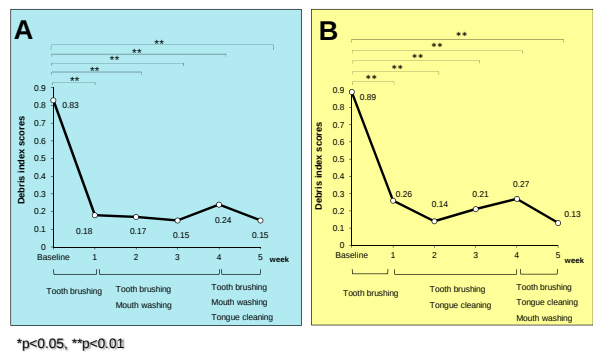
Changes of total VSCs (ppb) by Breathtron®



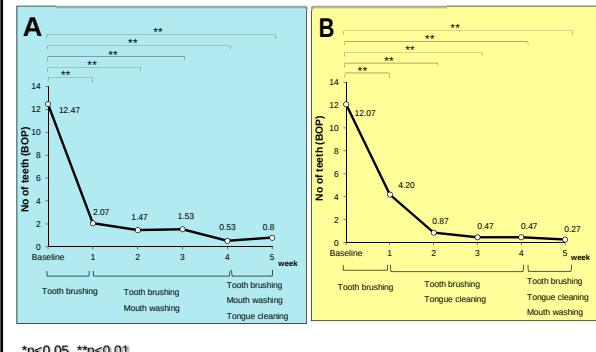
Changes of tongue coating scores



Changes of debris index scores (DI)

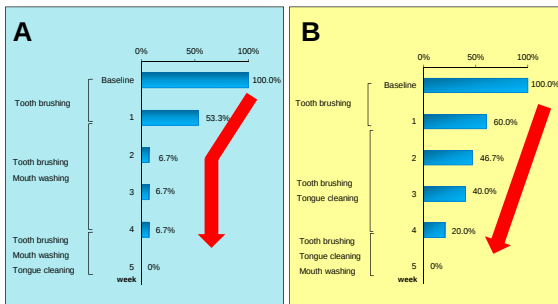


Changes of No. of teeth with bleeding on probing (BOP)





Changes of the percentage of subjects with oral malodor



Conclusion

This study showed that

- Tooth brushing only could not reduced oral malodor independently.
- Both mouth washing as a chemical method and tongue cleaning as a mechanical method significantly improved oral malodor.
- However, the combination use of the mechanical and chemical regimens was the most effective for the reduction of oral malodor.



Thank you

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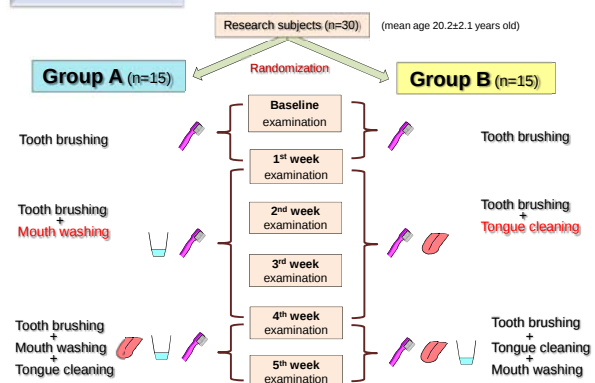


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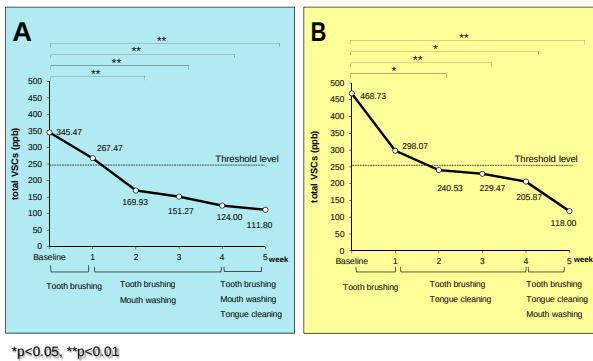
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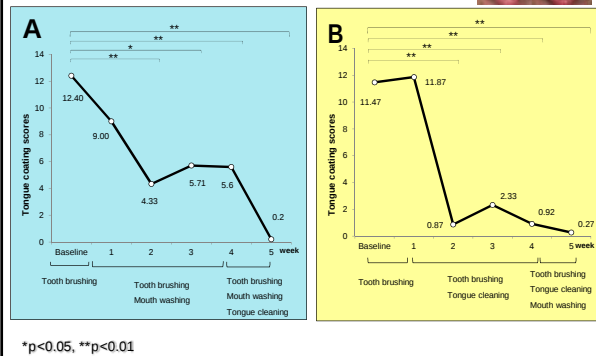
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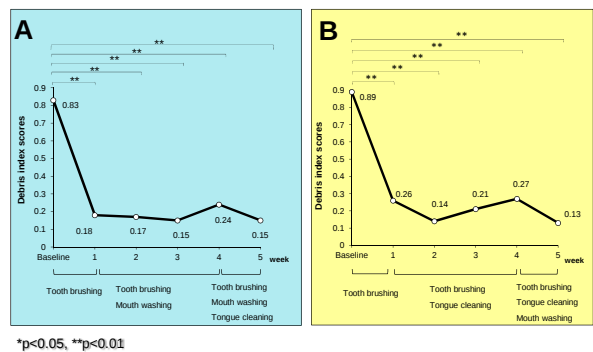
Changes of total VSCs (ppb) by Breathtron®



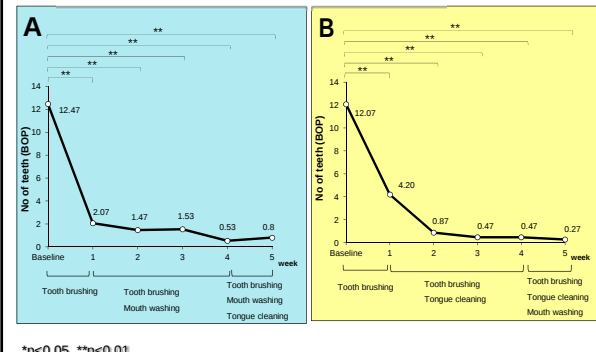
Changes of tongue coating scores



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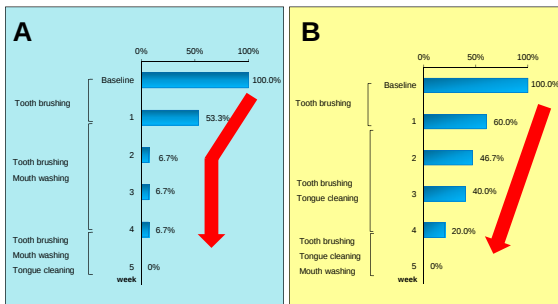


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“Association of Oral Health Literacy with Oral Health Behavior and Oral Health Status”
(Dr. Anastasiya Blizniuk, Tokyo Medical and Dental University)

Association of oral health literacy with oral health behavior and oral health status

Anastasiya Blizniuk, Masayuki Ueno, Takashi Zaitso, Yoko Kawaguchi
Department of Oral Health Promotion
Tokyo Medical and Dental University

Background

- Oral health literacy is “a degree in which individuals have the capacity to obtain, process and understand basic oral health information and services needed to make appropriate health decisions” (Healthy People 2010)
- Oral Health Literacy Instrument (OHLI) is a validated English-language functional oral health literacy test consisting of
 - ✓ reading comprehension
 - ✓ numeracy sections
- R-OHLI is a Russian language version of the OHLI, adopted and translated into Russian for the purposes of this research project

Reading comprehension

Reading comprehension section (38 items): 2 passages of text related to dental caries and periodontal disease, where words are omitted according to cloze procedure, and four possible answers are given.

‘When you go for a check-up, your dentist checks your fillings (if you have any), he/she may ____ you replace any loose or broken ones’

suggest
send
see
since

Numeracy

Numeracy (19 items): questions evaluating ability to comprehend common dental prescriptions and instructions which require performing some basic mathematical operations

For example, this medication prescription

Chlorhexidine 0.12%
Swish and spit 15cc for 30 seconds
3 times a day then nothing per mouth
for 30 minutes

is followed by question:
‘If you use it at 5 p.m., when can you eat or drink?’

Objective

The objective of this study was to analyze the associations between oral health literacy, socio-demographic status, health behavior and oral health outcomes



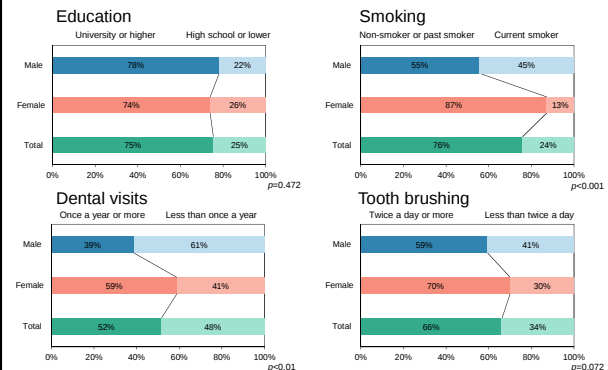
Methods

- Permission to translate the OHLI into Russian was granted by the author, Dr. Dania Sabbahi. Research design was approved by the Ethical Committee of Tokyo Medical and Dental University (No 901)
- OHLI was translated into Russian following by back-translation, resulting in creation of a R-OHLI
- A convenience sample of adults (n=281) who visited dental clinic in Mar’ina Gorka, Belarus was used in the study

Methods

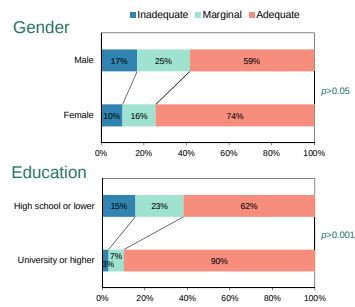
- Self-administered questionnaire included:
 - socio-demographics (age, gender, education)
 - health behaviors (smoking, dental visits, tooth brushing)
 - Russian version of the OHLI – R-OHLI
- Oral examination
 - dentition status
 - oral hygiene (PLI)
 - periodontal status (BOP, pockets depth)

Sample characteristics



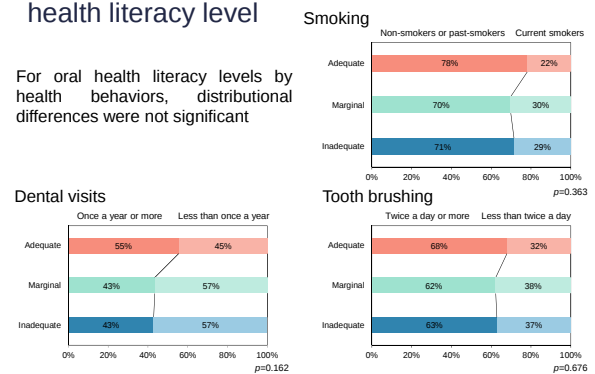
Distribution of socio-demographics by oral health literacy levels

- The R-OHLI scores were divided three oral health literacy levels:
 - adequate (75-100)
 - marginal (60-74)
 - inadequate (0-59)
- 68.7% of subjects had adequate oral health literacy level
- Proportions of subjects with adequate oral health literacy level were significantly higher among females than males, and among subjects with a university degree comparing to their counterpart

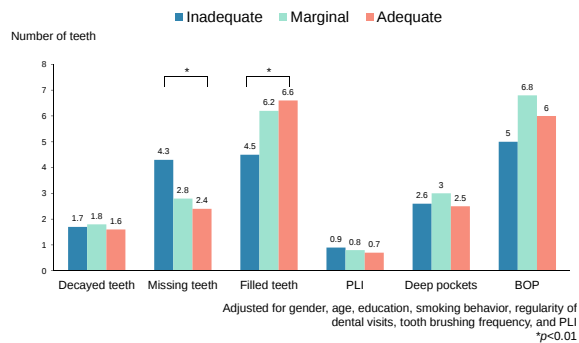


Distribution of health behaviors by oral health literacy level

For oral health literacy levels by health behaviors, distributional differences were not significant



Oral health status by oral health literacy levels



Discussion

- Oral health literacy level was significantly associated with gender and education in this study: females and subjects with a university degree had significantly higher oral health literacy levels comparing to their counterparts
- Association of oral health literacy level with health behaviors, such as smoking, regular dental visits and tooth brushing frequency, was not significant

Discussion

- Better oral health literacy was **significantly related with better oral health status**
- Subjects with adequate oral health literacy had significantly **lower number of missing**, and significantly **higher number of filled teeth**
- Dental treatment patterns seems to be related to oral health literacy level: subjects with lower oral health literacy may be reluctant to visit a dentist until they have a pain, which leads to aggravation of cases, and end up with the increased risk of tooth extractions

Conclusion

High oral health literacy was **strongly related with better oral health** status in this study. It is important that improvement of oral health literacy is addressed when developing community oral health promotion activities.

Adequate oral health education at each life stage, starting from the childhood, can contribute to the improvement of population's oral health status.

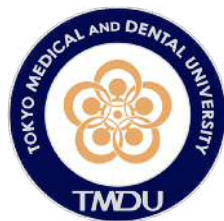


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大学の世界展開力強化事業運営委員会

「国際セミナー」ワーキンググループ

竹原祥子 川口陽子 田上順次



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「大学の世界展開力強化事業」運営委員会