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Ⅷ

オーラルヘルスサイエンス

International Seminar on

Oral Health Sciences

2015 年 10 月 27 日

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

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International Seminar on Oral Health Sciences

Date : October 27th, 2015 (Tue), 15:00～17:00

Venue : Lecture Room, Dental Building South, 4th floor

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

Program

Chair: Dr. Ei Ei Aung

Opening remark by Dr. Masayuki Ueno (Associate Prof.)

Presentation

1. **Oral health care for older Australians – policy and social issues**
   Prof. F.A Clive Wright
   Associate Director (Oral Health) and Clinical Professor,
   Centre for Education and Research on Ageing,
   Concord Clinical School, University of Sydney.

2. **New oral self-checking methods for senior high school students**
   Ms. Yuka Shizuma (2nd year Ph.D. student)

3. **Oral health situation in Myanmar preschool children**
   Dr. Kaung Myat Thwin (2nd year Ph.D. student)

4. **A new definition of halitosis**
   Dr. Toshiya Kanazawa (1st year Ph.D. student)

5. **Oral health promotion for people with special needs: research proposal**
   Ms. Mitsue Kamisawa (1st year Master student)

6. **Introduction of dental health care service in Japan Ground Self-Defense Force (JGS-DF)**
   Dr. Takashi Tanemura (1st year Ph.D. student)

Closing remark by Dr. Sachiko Takehara (Assistant Prof.)


International Seminar on
Oral Health Sciences
October 27th, 2015 (Tue)
15:00 – 17:00
JAPAN

クライブ先生のレクチャー

川口先生からクライブ先生へ感謝状贈呈

活発な質疑応答

"Oral health care for older Australians - policy & social issues" by Prof. FAC Wright.

Tokyo Medical & Dental University
27th October 2015

Oral health care for older Australians – policy & social issues

Clive Wright
Associate Director (Oral Health) & Clinical Professor,
Centre for Education & Research on Ageing,
Ageing and Alzheimer's Institute, Concord
Repatriation & General Hospital

Health Sydney Local Health District

The University of Sydney

Outline of Content

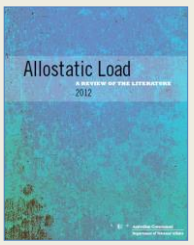
- Definitions – ageing societies & medicine; social & ethical implications;
- Demographic changes (revision) & policy
- Life course and quality of life
- Geriatric syndrome, frailty, disability and oral health
- Is MORE dentistry GOOD dentistry? Daily life activities
- Reshaping new paradigms in oral health – partnerships, work practices & workforce
- (IF TIME - The Inner West Oral Health Out Reach Program)

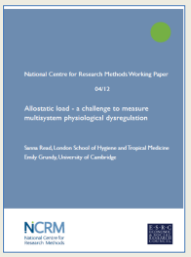
Grimley Evans, J. (2000). Ageing and medicine. *Journal of Internal Medicine* 247:159-167.

The Hayflick Principle ...is the number of times a normal human cell population will divide until cell division stops.

- Immortality is unattainable
- Characteristic manifestation of ageing – is a rise in risk of death
- The essence of ageing is a progressive loss of adaptability of an individual organism as time passes
- Underlying biological and evolutionary pressures
- Tissues & organs age at different rates
- Somatic cells have limited capacity for division – the **Hayflick limit** – possibly determined by reduction in telomere length with each mitosis
- Intrinsic ageing – lifespan is species, and partly genetically determined – maximum survival genes
- Extrinsic ageing – environmental factors (early infancy, later life) medical & health interventions

The Biological (medical) Imperative





Allostatic load is a sub-clinical dysregulation state, resulting from the body's response to chronic stress linked to specific health outcomes. Allostatic load is a cumulative phenomenon which develops over the life course and affects a number of physiological systems.

Stages in Allostatis – Adaptation

Stress mediation	System	Biomarker
Primary mediators	Neuroendocrine	Epinepherine, norepinephrerine, dopamine, cortisol, dehydroepiandrosterone (DHEAS), aldosterone
Secondary outcomes	Immune	Interleukin-6, tumor necrosis factor-alpha, c-reactive protein (CRP), insulin-like growth factor-1 (IGF-1)
	Metabolic	HDL and LDL cholesterole, triglycerides, glucosylated hemoglobin, glucose insulin, albumin, creatinine, homocysteine
	Cardiovascular and respiratory	Systolic blood pressure, diastolic blood pressure, peak expiratory flow, heart rate/pulse
	Anthropometric	Waist-to-hip ratio, body mass index (BMI)
Tertiary outcomes	Poor subjective health, disability, cognitive decline, cellular aging, diseases, death	

Figure 1. Stress mediation, systems and biomarkers used to measure allostatic load.

Lee JY & Divaris K (2014). The ethical imperative of addressing oral health disparities: a unifying framework. J Dent Res 93 (3): 224-230.

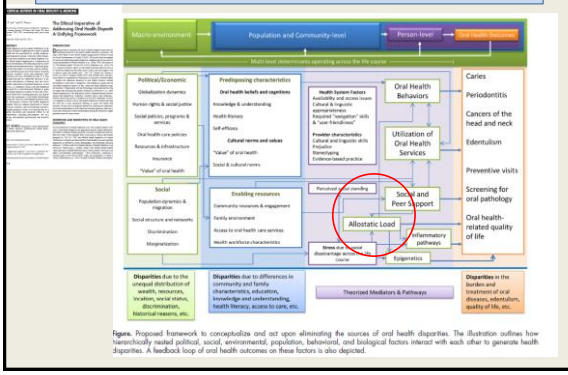


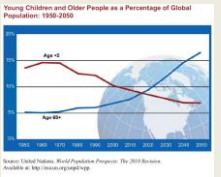
Figure. Proposed framework to conceptualize and act upon eliminating the sources of oral health disparities. The illustration outlines how hierarchically nested political, social, environmental, population, behavioral, and biological factors interact with each other to generate health disparities. A feedback loop of oral health outcomes on these factors is also depicted.

Oral diseases & their social impact:

Key influences of oral diseases are their impact on : general health, maintenance of oral health and social support.

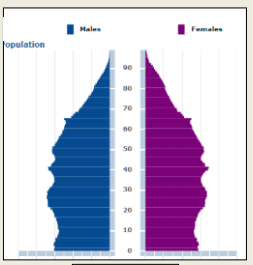
- Influences are personal, medical & environmental
- Social Impact for an **Individual** is linked to quality of life issues such as freedom from pain, capacity to eat favourite foods & personal appearance.
- Social Impact on **family, carers & service providers** (dental personnel) is on access to care, maintenance of oral health and dignity and respect in services offered and provided.
- Social Impact **on the community** – is linked to the social determinants of health, economic aspects with the health and aged care system and policy perspectives within private and government organisations

International Demographics

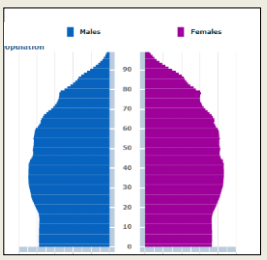


The world is facing a situation without precedent: We soon will have more older people than children and more people at extreme old age than ever before. As both the proportion of older people and the length of life increase throughout the world, key questions arise. Will population aging be accompanied by a longer period of good health, a sustained sense of well-being, and extended periods of social engagement and productivity, or will it be associated with more illness, disability, and dependency? How will aging affect health care and social costs? Are these futures inevitable, or can we act to establish a physical and social infrastructure that might foster better health and wellbeing in older age? How will population aging play out differently for low-income countries that will age faster than their counterparts have, but before they become industrialized and wealthy?

Australian Age Pyramid 2012 - 2050



Australia 2012



Australia 2050

Year:	2012
Total:	22,683,573
Males:	11,280,804
Females:	11,402,769

Year:	2050
Total:	33,958,906
Males:	16,972,620
Females:	16,986,286

Productivity Commission Report, 2011 – Caring for Older Australians

Table 3.1 **Projected size of selected age cohorts and their share of total population**

	2010	2020	2030	2040	2050
0–64	19 241 000 86.51%	21 487 000 83.63%	23 584 000 80.68%	25 645 000 78.72%	27 744 000 77.38%
70+	2 092 000 9.41%	2 950 000 11.48%	4 143 000 14.17%	5 286 000 16.22%	6 232 000 17.38%
85+	365 000 1.64%	532 000 2.07%	802 000 2.75%	1 319 000 4.05%	1 815 000 5.06%
100+	4 000 0.02%	7 000 0.03%	14 000 0.05%	24 000 0.07%	50 000 0.14%

Source: Data provided by Treasury. Treasury projections are published on page 10 of Australian Government 2010d.

Growth in Numbers:
85+ yrs = **X 5**
!00yrs = **X 12.5**

Aged Care in Australia 2013-14

From - R Baldwin (2015) CERA Workshop, October, 2015

	CHSP	HCP	RACF
Number of providers	1,676	504	1,016
Number of services	n/a	2,212	2,688
Number of consumers/places	775,959	66,149	189,283
Total revenue	$1.8 B	$1.3 B	$14.8 B
Commonwealth contribution to total revenue	*95%*	*92%*	*65%*
Consumer contribution to total revenue	*5%*	*7%*	*27%*
Other contribution to total revenue[4]	-	*1%*	*8%*
Total Expenditure	n/a	$1.1 B	$14.1 B
Total net profit before tax	n/a[5]	$120 M	$711 M

Source: ACFA 2014 Table i

CHSP = Commonwealth Home Support Program
HPC = Home Care Packages
RACF = Residential Aged Care Facilities

ACFA = Aged Care Financing Authority

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Government announced reforms 2011

From - R Baldwin (2015) CERA Workshop, October, 2015

RACF

- Greater access to information for consumers – **myagedcare.com.au**
- Allows choice between an Refundable Accommodation Deposits and a Daily Accommodation Payment)
- Providers can charge for additional services
- Removes the distinction between High and Low Care and Extra Services
- Increases consumer payments for care –means tested

HCP and CHSP

- Changed levels of services
- Expands home care
- Introduced consumer directed care (CDC)
- Increased consumer charges
- HACC changed to become an Australian Government responsibility = CHSP

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Aged Care in Australia 2014

From - R Baldwin (2015) CERA Workshop, October, 2015

Residential Aged Care Facilities

- **Providers**:
  - 52% Not-For-Profit (NFP), 37% For Profit (FP), 11% Govt.
- Approximately 85 beds per 1000 persons over the age of 70
- 85% residents are high care
- 81% of services high care, 2% low care, 17% mixed
- Occupancy rates – 93%
- $13 billion held in accommodation deposits *(residents' money)* by providers

Home Care Packages

- **Providers:**
  - 68% NFP, 12% FP, 20% Govt.
- Approximately 25 places per 1000 persons over the age of 70
- Utilization rate Australia 92% (NSW 96%)

Commonwealth Home Support Program

- **Providers**
  - 74% NFP, 8% FP, 18% govt.
- Community based services provide about half
- Major services (quantity/hours)
  - Centre-Based Day Care ; Meals (Home); Domestic Assistance; Transport; Social Support; Personal Care ; Nursing Care at Home

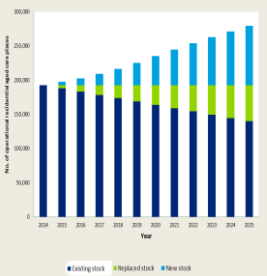
Proportion of aged population receiving aged care *From - R Baldwin (2015) CERA Workshop, October, 2015*

- CHSP is the most used program
- For 70-74 year olds
  - Less than 1% receive HCP
  - Over 20% receive CHSP
- Use of RAC increases significantly after age 85 years
- About 50% over 95 are in RAC
- About 50% over 85 receive CHSP
- Only 7% of those aged over 95 receive HCP

Projected demand for RACF Places 2014 - 2025

From - R Baldwin (2015) CERA Workshop, October, 2015

- ACFA estimates that an additional 82,000 beds will need to be built between 2014 and 2023 *(130 beds per week)*
- This compares with 37,000 new beds built over the past 10 years
- Together with the replacement of current stock that represents an investment of $33B *($217,000 per bed)*



Source: ACFA. 2015, Chart 8.6. page 136

The Life Course - Life Phases & The Meaning of Life!

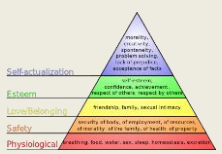
Successful Ageing
- Genetics
- Environment
- Chance
- Navigation & adaptation

Quality of Life

Ageing Gracefully
- Recognising biological changes
- Psychological & stress management
- Social value

Health Imperatives
- Geriatric syndrome
- Frailty
- Multimorbidity & polypharmacy

What constitutes Quality of Life?



Maslow's Hierarchy of Human Needs

- Health?
- Independence?
  - security
  - financial
  - emotional
- social value (contribution)

Consumer Survey Needs

Global – Age Watch. Best countries to grow old in!

Health Related Quality of Life

Definition: Perceived quality of an individual's daily life – including emotional, social and physical aspects – impacting on an individual's well-being over time, and which may be affected by a disease, disability or disorder.

Measures:

- *Life 14_measure. Health Day measures (14 Items);*
- *Manchester Short Assessment of Quality of Life (18 Items);*
- *WHO-Quality of Life BREF (26 Items.)*

Oral Health Related Quality of Life

Dentistry has traditionally used specific clinical indicators (Pain, Decay, DMFT; CPITN; Edentulism) to assess the impact of oral health conditions on an individual's quality of life.

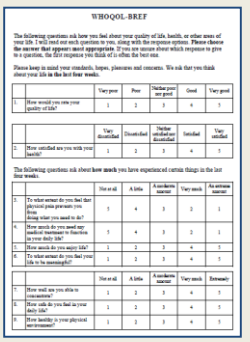
These have been replaced with the recognition that the full scope of health status, function and well-being should be included in definitions and measurement:

- *General (Geriatric) Oral Health Assessment Index (12 Items);*
- *Oral Health Impact Profile (OHIP 14 – 14 Items);*
- *Brief Oral Quality of Life Scale (12 Items).*

Quality of Life...

World Health Organization WHOQOL-BREF

- 26-item version of the WHOQOL-100;
- Psychometric properties assessed in 23 countries with samples from general population, hospital, rehabilitation & primary care settings
- Good to excellent psychometric properties of reliability & validity
- Sound cross-culturally valid assessment of QOL as reflected by its four domains:
  - ➢ physical;
  - ➢psychological;
  - ➢social; and
  - ➢environmental.


WHOQOL-BREF

The following questions ask how you feel about your quality of life, health, or other areas of your life. I will read out each question to you, along with the response options. Please choose the answer that appears most appropriate. If you are unsure about which response to give to a question, the first response you think of is often the best one.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last four weeks.

		Very poor	Poor	Neither poor nor good	Good	Very good
1	How would you rate your quality of life?	1	2	3	4	5

		Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied
2	How satisfied are you with your health?	1	2	3	4	5

The following questions ask about how much you have experienced certain things in the last four weeks.

		Not at all	A little	A moderate amount	Very much	An extreme amount
3	To what extent do you feel that physical pain prevents you from doing what you need to do?	5	4	3	2	1
4	How much do you need any medical treatment to function in your daily life?	5	4	3	2	1
5	How much do you enjoy life?	1	2	3	4	5
6	To what extent do you feel your life to be meaningful?	1	2	3	4	5

		Not at all	A little	A moderate amount	Very much	Extremely
7	How well are you able to concentrate?	1	2	3	4	5
8	How safe do you feel in your daily life?	1	2	3	4	5
9	How healthy is your physical environment?	1	2	3	4	5

Quality of Life ... related oral health

OHIP 14

Oral Health Impact Profile

Slade GD. Derivation and validation of a short-form oral health impact profile. *Community Dent Oral Epidemiol 1997*: 25; 284-90.

Higher score = Poorer Oral Health QoL

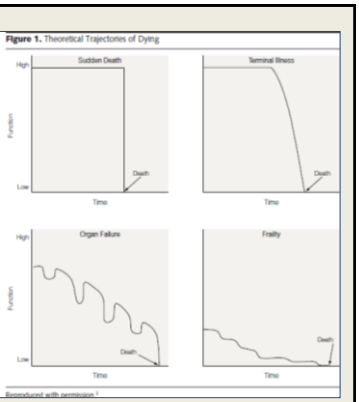
Table 4. Questions and weights for the OHIP-14*

Dimension	Question	Weight
Functional limitation	Have you had trouble *pronouncing any words* because of problems with your teeth, mouth or dentures?	0.51
	Have you felt that your *sense of taste* has worsened because of problems with your teeth, mouth or dentures?	0.49
Physical pain	Have you had *painful aching* in your mouth?	0.34
	Have you found it *uncomfortable to eat any foods* because of problems with your teeth, mouth or dentures?	0.66
Psychological discomfort	Have you been *self-conscious* because of your teeth, mouth or dentures?	0.45
	Have you *felt tense* because of problems with your teeth, mouth or dentures?	0.55
Physical disability	Has your *diet been unsatisfactory* because of problems with your teeth, mouth or dentures?	0.52
	Have you had to *interrupt meals* because of problems with your teeth, mouth or dentures?	0.48
Psychological disability	Have you found it *difficult to relax* because of problems with your teeth, mouth or dentures?	0.60
	Have you been a bit *embarrassed* because of problems with your teeth, mouth or dentures?	0.40
Social disability	Have you been a bit *irritable with other people* because of problems with your teeth, mouth or dentures?	0.62
	Have you had *difficulty doing your usual jobs* because of problems with your teeth, mouth or dentures?	0.38
Handicap	Have you felt that life in general was *less satisfying* because of problems with your teeth, mouth or dentures?	0.59
	Have you been *totally unable to function* because of problems with your teeth, mouth or dentures?	0.41

* Responses are made on a 5-point scale, coded 0=never, 1=hardly ever, 2=occasionally, 3=fairly often, 4=very often. Within each dimension, coded responses can be multiplied by weights to yield a subscale score.


Patterns of Functional Decline at the End of Life

Lunney et al (2002). Profiles of older medicare decendents. J Am Geriatr Soc 50: 1108-1112.



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The Geriatric Syndrome – what is it and what is the relationship to oral health?


NIH Public Access
Author Manuscript

Geriatric Syndromes: Clinical, Research and Policy Implications of a Core Geriatric Concept

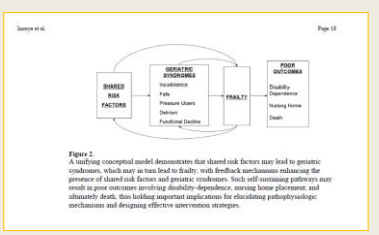


Figure 2.
A unifying conceptual model demonstrates that shared risk factors may lead to geriatric syndromes, which may in turn lead to frailty, with feedback mechanisms enhancing the presence of shared risk factors and geriatric syndromes. Such self-sustaining pathways may result in poor outcomes involving disability-dependence, nursing home placement, and ultimately death, thus holding important implications for elucidating pathophysiologic mechanisms and designing effective intervention strategies.

Points –

1. Geriatric Syndrome – should oral health be an additional component?
2. Frailty – can we better define this with respect to oral health interventions?
3. Mortality & multi-morbidity - Dental Treatment


Gerodontology
Original article
Poor oral health, a potential new geriatric syndrome

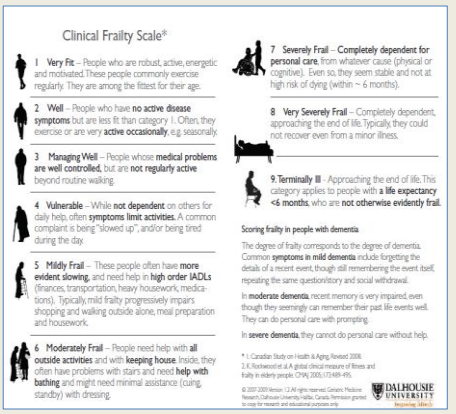
Courtesy Dr Peter Foltyn, St Vincent's Hospital

Frailty definition

"Excess vulnerability to stressors, resulting from cumulative decline in the physiological reserves of multiple systems, which subsequently leads to reduced ability to maintain or regain homeostasis after a destabilizing event" (Waltson et al, JAGS 2006)

Characterized by decrease in physiological reserve

- eg gait speed, strength, weight loss, cognitive impairment, renal function
- Sarcopenia (loss of muscle mass and strength)
- Hormonal changes eg: Vitamin D, growth hormone, testosterone, oestrogen
- Anorexia of ageing/Protein energy under nutrition



Rate of Disability – assistance required for daily living

- Increases rapidly after 85 years of age
- For 80 year-olds: 44% women & 32 %men require assistance
- For 90 year-olds: 72% women & 56% men require assistance*

Burden of Dementia – rises with increasing age

- At 70-75 years: rate is 3.5% men & 3.3% women
- At 85-89 years: rate is 21.1% men & 24.4% women
- At 95 + years: rate is 37.2% men & 47.3% women**

* Based on ABS Consensus Data 2006
** Access Economics, 2020

*Common health conditions of older Australians**

Long-term health conditions are more common with increasing age:

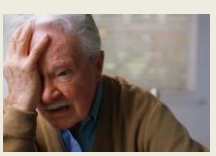
- In 2005 – 100% of people 65+ years reported at least one long-term health condition.
- Diseases of the eye (90%); musculoskeletal conditions (66%); circulatory system disorders (57%); osteoarthritis (28%); respiratory conditions (15%)

Disability :

- In 2003, 56% of all older persons had a reported disability; 22% having a profound or severe core activity limitation.

* Source: Australian Bureau of Statistics. Health of Older People in Australia: A snapshot, 2004-2005. http:www.abs.gov.au Downloaded 17/9/2011

Consider the Impact of: Frailty, Dementia & Disability All Require Daily Oral Health Assistance



Based on the international prevalence rates, Access Economics (2010a) projected that with the rise in longevity the number of people with dementia will increase to around 981 000 by 2050 (2.8 per cent of the population). The projected increase in the prevalence of dementia will have a substantial impact on the demand for complex and costly care services. It is already one of the major reasons for entry into residential aged care as advanced dementia patients require high levels of care, with facility design being important in assisting to manage difficult behaviours such as wandering and agitation.

Common Musculoskeletal Disorders

- **Osteoarthritis** – gradual deterioration of joint cartilage; pain, stillness loss of function. The most common chronic joint disease in Australia (1.3M people affected).Risk factors for osteoarthritis including excess weight or obesity, joint injury, repetitive kneeling or squatting and repetitive heavy lifting. Osteoarthritis can be effectively managed with medication, exercise and in some cases surgery.
- **Rheumatoid Arthritis** – inflammatory disorder damaging synovial tissue between bone & joints
- **Osteoporosis** – compromised bone strength predisposing to increased risk of fracture

RESIDENTIAL CARE AND ORAL HEALTH

Table 4.23. Medical characteristics by dentate status (%) (n=510)

	Dentate (n=275)	Edentulous (n=235)	Total (n=510)
Number of chronic medical conditions (a)			
0	0.0	0.4	0.2
1-2	18.0	11.5	15.0
3-4	41.8	32.2	37.3
5-6	29.5	29.1	29.3
7-8	8.4	20.3	13.9
9+	2.3	6.6	4.3
Number of medications			
0	2.3	0.9	1.7
1-2	7.0	4.1	5.7
3-4	13.3	14.7	14.0
5-6	20.3	18.9	19.7
7-8	23.4	24.0	23.7
9+	33.6	37.4	35.3
Diagnosed dementia	38.0	37.9	38.0
History of stroke (b)	14.9	21.6	18.0
Diagnosed diabetes	12.6	17.2	14.7

(a) χ^2=25.09, p<0.001 (b) χ^2=7.46, p=0.024

Figure 5.2. Resident with an upper denture that had not been removed due to calculus forming over clasps.

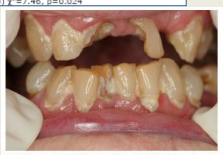
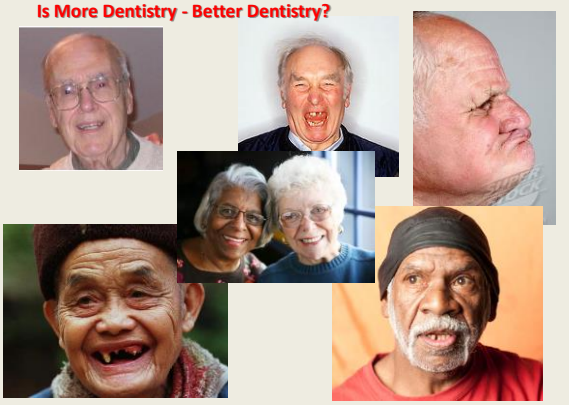
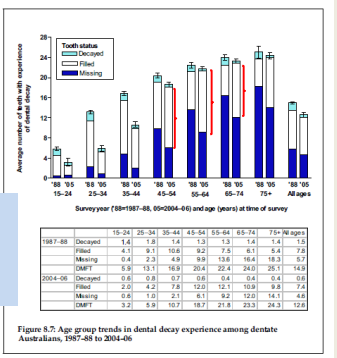


Figure 4.3. Example of teeth with plaque covering more than 1/3 but less than 2/3 of the tooth.

Is More Dentistry - Better Dentistry?



Is more dentistry better dentistry... ?



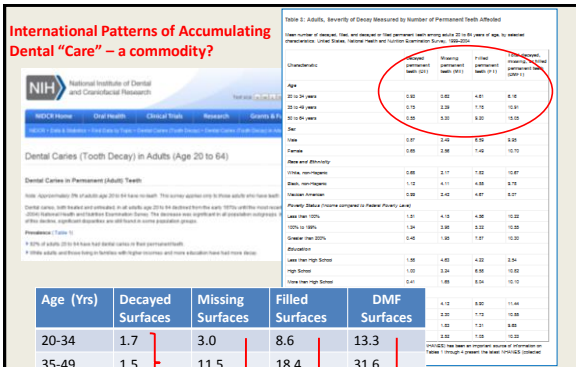
		15–24	25–34	35–44	45–54	55–64	65–74	75+	All ages
1987–88	Decayed	1.4	1.8	1.4	1.3	1.3	1.4	1.4	1.5
	Filled	4.1	9.1	10.6	9.2	7.5	6.1	5.4	7.6
	Missing	0.4	2.3	4.9	9.9	13.6	16.4	18.3	5.7
	DMFT	5.9	13.1	16.9	20.4	22.4	24.0	25.1	14.9
2004–06	Decayed	0.6	0.8	0.7	0.6	0.4	0.4	0.4	0.6
	Filled	2.0	4.2	7.8	12.0	12.1	10.9	9.8	7.4
	Missing	0.6	1.0	2.1	6.1	9.2	12.0	14.1	4.6
	DMFT	3.2	5.9	10.7	18.7	21.8	23.3	24.3	12.8

Figure 8.7: Age group trends in dental decay experience among dentate Australians, 1987–88 to 2004–06

Accumulation of "Filled" Teeth

- Note Increases In Filled Component of DMFT Index (a) between generations...(b) between cohorts...

International Patterns of Accumulating Dental "Care" – a commodity?



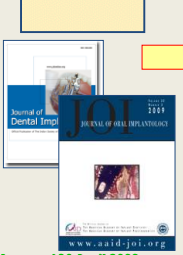
Age (Yrs)	Decayed Surfaces	Missing Surfaces	Filled Surfaces	DMF Surfaces
20-34	1.7	3.0	8.6	13.3
35-49	1.5	11.5	18.4	31.6
50-64	1.2	25.3	27.5	53.9

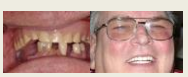
"Accumulated" DMF Surfaces

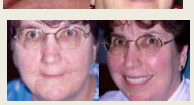
Is MORE dentistry BETTER dentistry?

Ceramic Onlays and Inlays

Implants



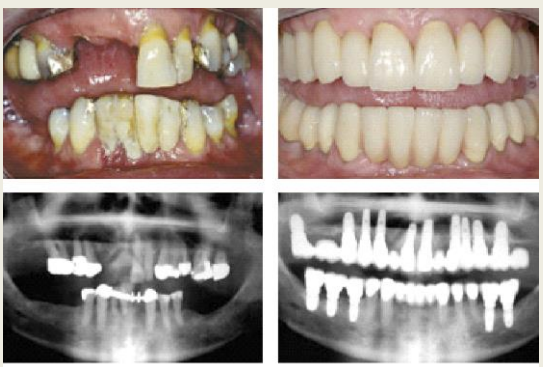




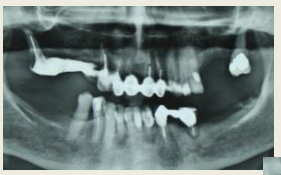
"Function + Appearance = Quality of Life"
American Academy of Implant Dentistry

Accessed 30 April 2009

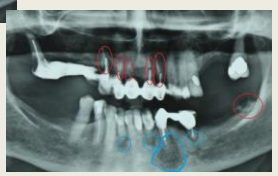
Is MORE dentistry BETTER dentistry?



Case History 1 – courtesy Dr Peter Foltyn, St Vincent's Hospital, Sydney



Request by Family Member:
- X does not want any teeth removed
- Only the nerves should be removed
- Only top teeth are a problem
- If infection/abscess antibiotics may be required
- Would value your opinion

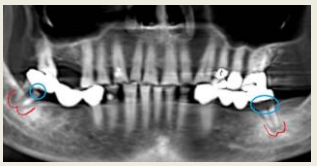


Issues for Dental Practitioner
- Frailty and capacity for mouth care
- Multiple sites of pathology
- Expectations of the family
- Best option for patient

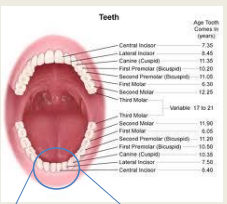
Case History 3 – courtesy Dr Peter Foltyn, St Vincent's Hospital, Sydney

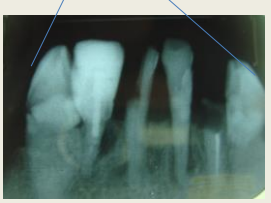
Readmission to Emergency Department – February 2014
- 79yr old Greek Australian male living at home
- Numerous hospital ED visits over the past 4 years with spiking fevers and delirium, struggling to verbalise and unsafe on his feet on these occasions
- Wife says he complained of lower jaw pain in the week prior to current admission
- Unsuitable for an OPG as unable to stand - Facial bone CT taken and an OPG reconstructed from the data set

Treatment Options:
- Dental abscess formation on both lower distal bridge abutments (red) together with root fractures (blue) as a result of root caries
- Anaesthetic review -marginally suitable for GA; continuation of IV antibiotics and wait for improvement in cognition and delirium
- Definitive care - extraction of both lower bridges and curettage of dental abscess's



Inner West Oral Health Outreach Program

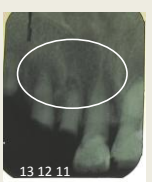


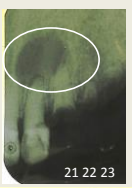


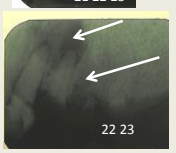
Inner West Oral Health Outreach Program

Resident BKK

Male - 95 yrs of age
Medical History: Hypertension, hypercholesterolemia, macular oedema, osteoporosis
Co-morbidities: Limited mobility, reduced hand dexterity, T2DM







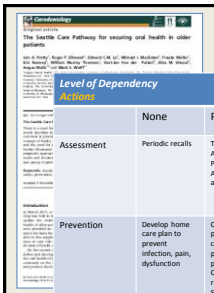
Matching ageing & oral health needs

Ettinger, R (2015). Treatment planning concepts for the ageing patient. Aust Dent J 60: (1 Supp) 71-85.

INDEPENDENT OLDER PEOPLE
About 70% of Australians aged 65 years and over, are functionally independent. Many of this cohort have some chronic medical problems such as, hypertension, type 2 diabetes, osteoarthritis etc., for which they are taking a variety of medications.

FRAIL OLDER PEOPLE
Around 20% of Australians aged 65 years and over have lost some of their independence, but still remain in the community with assistance from family, friends or professional support services. Frail' older people are at greater risk of adverse outcomes (worsening disability hospital or nursing home admission and death) and are more likely to present with geriatric syndromes (particularly delirium and falls).

DEPENDANT OLDER PEOPLE
About 10% of Australians aged 65 years and overare no longer able to live in the community independently (5% are homebound and 5% are living in institutions).



Level of Dependency
Actions

	None	Pre	Low	Medium	High
Assessment	Periodic recalls	Threats Add' Tests Plan Assess elder abuse	Causation OH Risks Plan Prepare for increasing risks Prognosis	Partnership with allied health Assess prognosis of prevention	Assess barriers to palliative care Monitor burden o n carers Monitor Plan Check elder abuse
Prevention	Develop home care plan to prevent infection, pain, dysfunction	Consider prescription of caries & periodontal products Check cancer risk Sensitivity products?	Assess cause & mitigating factors Adjust methods of prevention Assess adverse effects of polypharmacy, sugars in medications Dry mouth products	Maintain partnership contact Reassess conc of products & application by carers Reassess risks, polypharmacy, dry mouth	Focus on preventing infections, pain, comorbidity, Maintain high fluoride Prevent mucositis & risk of respiratory infections
Treatment	Routine	Plan treatment outcomes for easy maintenance	Consider shortened dental arch Plan for maintenance & prevention of infection, function, pain	Repair strategically important teeth Design simple maintenance care	Provide palliative care on demand to control pain, infection and promote social engagement
Communication	Explain the impact of increasing dependency	Explain significance of oral conditions	Emphasise prevention	Maintain partnerships Monitor care plans	Monitor communication between interprofessional team & carers Continuous adjustment to palliative care needs

Guiding Principles for Clinicians providing care to older people

SPECIAL ARTICLES

Guiding Principles for the Care of Older Adults with Multimorbidity: An Approach for Clinicians

American Geriatrics Society Expert Panel on the Care of Older Adults with Multimorbidity*

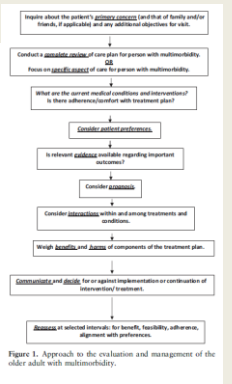


Figure 1. Approach to the evaluation and management of the older adult with multimorbidity.

Guiding Principles for Clinicians When Dealing With Older People

American Geriatric Society Expert Panel on the Care of Older Adults with Multimorbidity.
J Am Geriatr Soc 60: E1-E25, 2012

1. **Patient Preferences Domain: Guiding principle** – elicit and incorporate patient preferences into decision-making … [for older adults with multimorbidity]
2. **Interpreting the Evidence Domain: Guiding principle** – recognizing the limitations of the evidence base, interpret and apply the medical/dental literature specifically to older adults…
3. **Prognosis Domain: Guiding principle** – frame clinical management decisions within the context of risks, burdens, benefits and prognosis (eg, remaining life expectancy, functional status, quality of life) …
4. **Clinical Feasibility Domain: Guiding principle** – consider treatment complexity and feasibility when making clinical management decisions…
5. **Optimizing Therapies and Care Plans Domain: Guiding principle** – use strategies for choosing therapies that optimize benefit, minimize harm and enhance quality of life…

Reforming our approach to oral health care for older Australians

The power of partnerships

Recognise the shift in community attitudes toward older people:
- their value & contribution to the economy of nations
- equity in access to health care & both financial and policy barriers
- the diversity of biological and social imperatives not linked to "age in years"
- basing care on dignity and respect for older people

Appropriately matching clinical interventions to anticipated future outcomes:
- Evidence-base ; 20-occluding teeth being functionally & cosmetically the gold standard
- Decreased self-care capacity requires daily assistance with oral hygiene

Focussing on prevention and health maintenance:
- client/patient centred needs, adaptability, empowering other;
- the shared-care paradigm – individual, carers, allied health;
- greater responsibilities for dental hygienists and oral health therapists

Reforming our approach to oral health care for older Australians

The power of partnerships

Moving outside our professional / bureaucratic comfort zone:
- partnership with agencies, organisations, allied health, carers
- adding value to quality of life, respect, dignity and health outcomes
- all partners having equal status

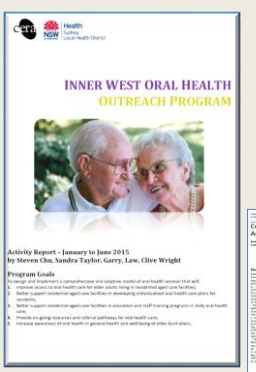
Recognising strong linkages into the age care and general health systems:
- being "embedded within…" not an "add-on";
- integrating various models of care & service delivery

Acting on the Social Determinants of Health:
- in policy & administrative decisions
- in everyday ethical clinical judgements

• Constant re-evaluation, reflection and adaptation:

Our Goal – Improve the Quality of Life of Older People

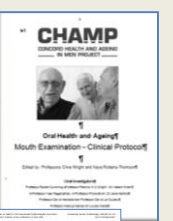
Key Strategies:
- Recognition of diversity of oral & general health conditions & adaptabilities
- Development of inclusive (partnerships) in oral health care planning
- Focusing on prevention, oral health maintenance & minimal interventions
- Participating in multidisciplinary teams with carers & allied health



INNER WEST ORAL HEALTH OUTREACH PROGRAM

Activity Report – January to June 2015
by Steven Chu, Sandra Taylor, Garry, Law, Clive Wright

Program Goals



CHAMP

Oral Health and Ageing
Mouth Examination - Clinical Protocol

Cohort Profile: The Concord Health and Ageing in Men Project (CHAMP)

Managed care to 800 Residents in 11 Residential Aged Care Facilities

N_1 = 1,511 (2007-08)
N_2 = 750 (2014) with some 500 completing an oral examination.

Outline of Content

- Definitions – ageing societies & medicine; social & ethical implications;
- Demographic changes - revision
- Life course and quality of life
- Geriatric syndrome, frailty, disability and oral health
- Is MORE dentistry GOOD dentistry? Daily life activities
- Reshaping new paradigms in oral health – partnerships, work practices & workforce

THANK YOU

"New Oral Self-Checking Methods for Senior High School Students" by Ms. Yuka Shizuma

New Oral Self-Checking Methods for Senior High School Students

Yuka Shizuma
Department of Oral Health Promotion,
Graduate student

Background

- It is important to take care of oral health since adolescence.
- Prevention of periodontal disease would require earlier recognition of the signs and the initial symptoms of these diseases.
- However, it is difficult for adolescents to recognize and acknowledge dental plaque and the initial symptoms of gingivitis.

Objective

- We have developed a new oral self-checking method using a mirror and a toothpick to evaluate how well adolescents recognize dental plaque and gingival status.

➢The purpose of this study was to assess the effectiveness of the self-checking method among senior high school students.

Methods

➢Subjects were 151 (male:77, female:74) senior high school students (15-16 years old) in Tokyo.

➢Clinical oral examination of 12 anterior teeth

-Oral hygiene status: modified Debris Index (DI score, 0-36)

-Gingival inflammation of interdental papillar: modified PMA Index (PMA score, 0-10)

Methods

➢The students self-evaluated the accumulation of dental plaque and gingival status with 4-item scale.

-Dental plaque

None	Little plaque	Moderate plaque	Severe plaque

-Gingival status

Healthy	Mild gingivitis	Moderate gingivitis	Severe gingivitis

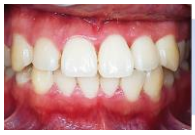
Students' self-checking methods at 4 occasions

1. Baseline self-check ⇨ Evaluation

- Students evaluated the accumulation of dental plaque and gingival status with 4-item scale.

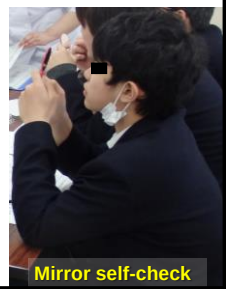
2. Mirror self-check

- Students observed their dental plaque and gingival status **using a mirror**, and evaluated.



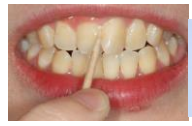
Observation parts

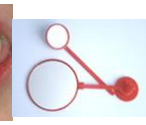
Evaluation



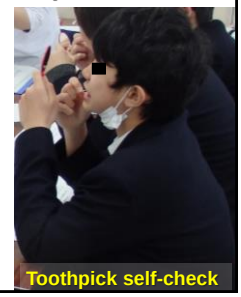
3. Toothpick self-check

- Students observed dental plaque and gingival status **using a toothpick and mirror**, and evaluated.



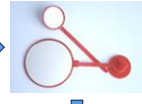


Evaluation



4. Final self-check

- We performed **oral health education** focusing on the prevention of gingivitis.
- Following that, students observed them using a mirror and evaluated.



Evaluation

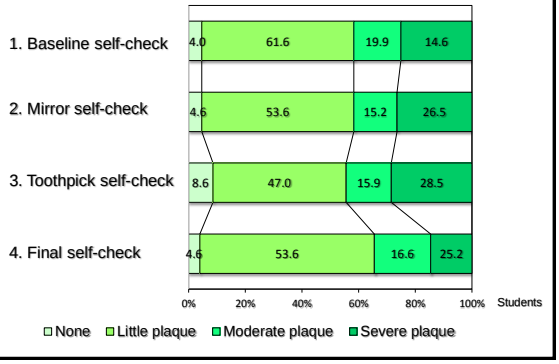
Results

1. Clinical oral health status

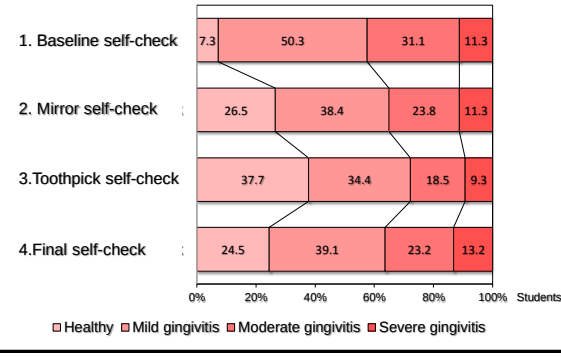
- The mean DI score was significantly higher in male students than in female students.
- No gender differences were found in PMA score.

Indicies	Total	Male	Female	*P*-value
DI score	11.0±7.6	12.4±7.5	9.5±7.4	0.020
PMA score	6.4±3.4	6.9±3.2	5.9±3.5	N.s.

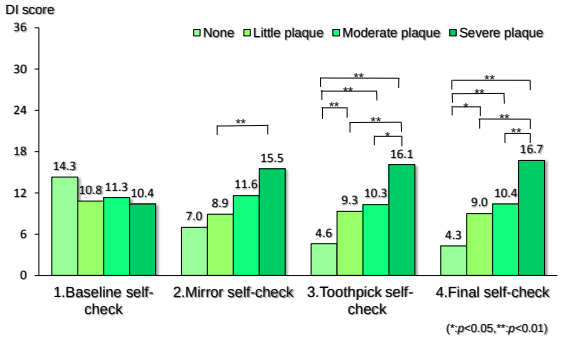
2. Students' self-evaluation of dental plaque



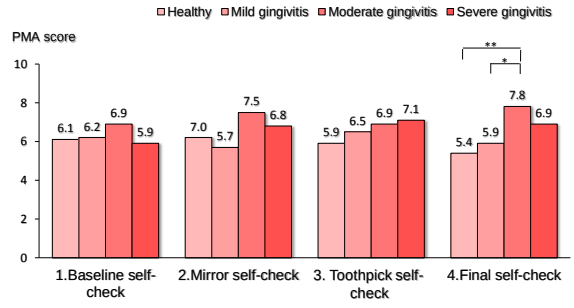
2. Students' self-evaluation of gingival status



3. The relationship between students evaluation and oral health status (Dental plaque)



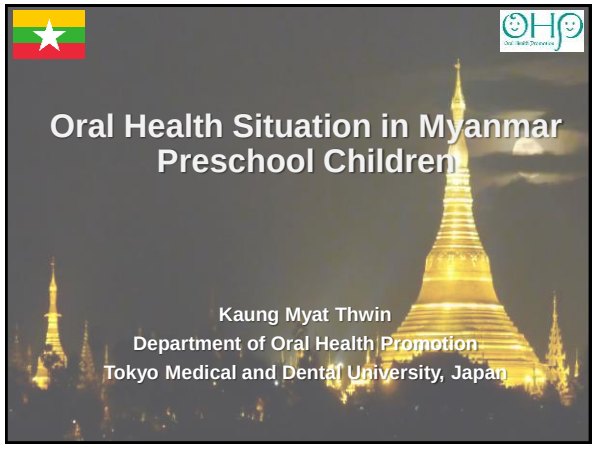
3. The relationship between students evaluation and oral health status (Gingival status)



Conclusion

1. Scratching dental plaque with a toothpick was suggested to be more useful method compared to only observing with a mirror.
2. It may be effective to first provide students with correct knowledge about gingivitis, and then let them check their gingiva with a mirror.

"Oral Health Situation in Myanmar Preschool Children" by Dr. Kaung Myat Thwin



Introduction

- Myanmar is one of the developing countries and people awareness on oral diseases and oral health education is still weak.
- People with poor oral health education background may lack in awareness for the oral health care and thus their self care ability will not facilitate.
- As there is no health insurance system and higher costs for dental treatment, it is also a big threat for the people to cure effectively.

Research Themes

- Topic – **"Prevalence and related risk factors of Early Childhood Caries among Myanmar Preschool Children"**
- Background
  - National representative oral health survey is still unknown and only regional surveys could be performed.
  - Furthermore, there have been a few reports on caries of the primary teeth in Myanmar.
  - The oral health education and examination programs for preschool children is very seldom in Myanmar yet.

Caries Prevalence in Myanmar Preschool Children (Regional surveys)

Author (s)	Sample size	Age (years)	Prevalence	dmft
Menezes D.M (1974)	284	3 - 6	86%	7.0
Kyaw Sein (1974)	860	6	-	4.3
Sun Sun Win (1994)	283	3 - 5	-	5.8
Helderman W.H (2005)	163	2 - 2.5	47%	4.0
Myanmar Path-finder Survey (2007)	**792**	**5**	**68%**	**4.1**

Objectives

- To describe **the prevalence and related factors of early childhood caries** in Myanmar
- To describe the relationship between occurrence of early childhood caries and knowledge, attitude, practice of good oral health
- To evaluate the impact of awareness of dental caries by parents to their children in Myanmar
- To describe the relationship between their socio-economic status, dietary habit and dental caries among Myanmar children

Data Collection

- The written consent was obtained by parents or guardians.
- The preschool children (2 – 6 years) was collected from six kindergartens of Yangon city, Myanmar. (August – September 2015)
- Number of participated preschool children for

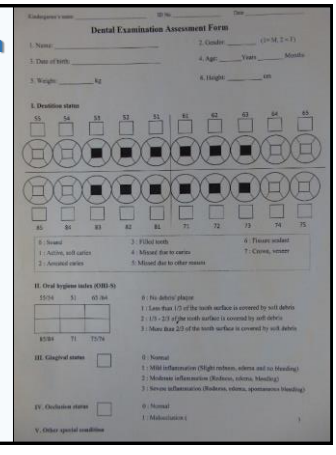
  Oral Examination - 833

  Questionnaires - 677

Measurement of Weight and Height

Oral Examination Form

- The oral hygiene status (OHI-S index)
- Dental caries status
- Gingival condition
- Occlusion
- Other special condition



Questionnaires

- The questions asking for parents or caregivers was included the data concerning with
  - Socio-economic status,
  - Child's feeding and oral hygiene habits,
  - Dental visit of child,
  - Parental oral hygiene habits
  - Parent's knowledge and attitudes on oral health,
  - Parental satisfaction with the general and dental health of their child.

Oral Health Education

- Oral health education was conducted by group.
- The importance of tooth brushing and oral hygiene care was given by using
  - poster
  - tooth model
  - a short story.

Conclusion

- The oral health situation and oral health behavior are poor among Myanmar preschool children.
- Parents widely accepted that the primary teeth is not so important and these can be replaced by permanent teeth.
- Parents are not taking care so much generally to their children's dental care for primary dentition.
- These factors may be attributed to increase the incidence and prevalence of dental caries especially in Myanmar children.

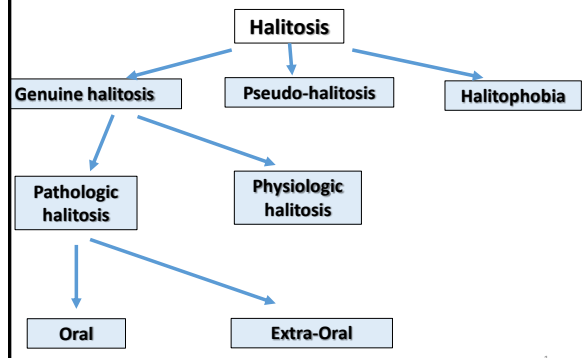
" Introduction of New Halitosis Definition" by Dr. Toshiya Kanazawa.

Introduction of New Halitosis Definition

Reference
Halitosis: a new definition and classification(British Dental Journal 217, E1 2014)
Halitosis management by the general dental practitioner –results of an international consensus workshop (Journal of Breath Research.8 2014)

Department of Oral Health Promotion
Toshiya Kanazawa

Previous (1) definition



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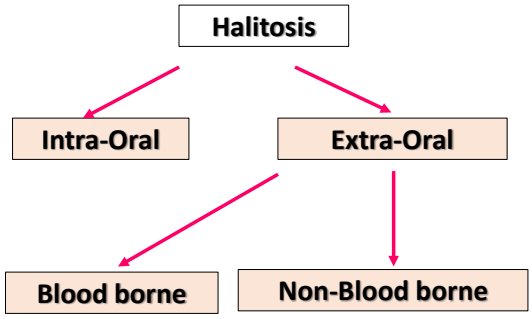
Previous (2) definition



2

Previous (3) definition

- A halitosis complaint may be objective.
- Anyone who complains of halitosis, objective or subjective, should be considered a 'halitosis patient'.
- A lack of complaints from the patient's social environment including family members, suggests that there is no objective halitosis.

3

Previous (3) classification

Type0	Type1-Oral
Type0	Type2-airway
Type0	Type3-gasroesophageal
Type0	Type4-blood borne
Type0	Type5-subjective

Physiologic halitosis ← → Pathological halitosis

4

Type 0 halitosis: Physiologic halitosis

Physiologic halitosis presents in every person the sum of following.

oral, airway, gastroesophageal,

blood-borne,

gas leakage from the gastroesophageal tract,

blood gases.

Minimal amounts of Types 1-5 potentially exist in health.

5

Type 1 halitosis: Oral halitosis

Oral halitosis are caused by poor oral hygiene.

The gases responsible for oral halitosis are by-products of protein and glycoprotein putrefaction by the oral microbiota especially anaerobes.

Oral bacteria release VSC (volatile sulphur compounds) and VOC (volatile organic compounds) .

6

Type 2 halitosis: airway halitosis

Type 2 halitosis originates from the respiratory tract itself anywhere from nose to alveoli.

'Airway reflux' describes gaseous or liquid gastric contents refluxing to the pharynx, oral cavity, nasal cavity, paranasal sinuses or even the middle ear sometimes cause of halitosis.

7

Type 3 halitosis: gastroesophageal halitosis

Type 3 halitosis is leakage of odorant volatiles from the stomach via the oesophagus to the mouth and nose.

Pathologic level of gastroesophageal halitosis is said to occur due to

i) gastroesophageal reflux disease (GERD),
ii) Helicobacter pylori related gastritis,
iii) other cause.

8

Type 4 halitosis: blood-borne halitosis

Type 4 halitosis is where volatile chemicals in the systemic circulation can transfer to exhaled breath.

When odorous chemical in blood circulation exceeds a critical level then it is secreted to breath, urine, tear, saliva and sweat.

9

Type 5 halitosis: subjective halitosis

Subjective halitosis is a halitosis complaint without objective confirmation of halitosis by others or halitometer readings.

Pathologic subjective halitosis can be categorized as psychologic or neurologic.

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Psychologic causes (Type 5)

Psychologic factors can cause subjective halitosis.

This is termed a type of obsessive-compulsive spectrum disorder, or olfactory reference syndrome (ORS).

Others' behavior is misinterpreted as evidence of halitosis.

It is suggested the patient's distress or social isolation.

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Neurogenic causes (Type 5)

Olfaction and gustation are intimately interlinked at the neuronal level in the brain.

Many patients fail to distinguish between bad taste and bad odour.

Gustatory stimuli may influence orthonasal and retronasal odorant perception.

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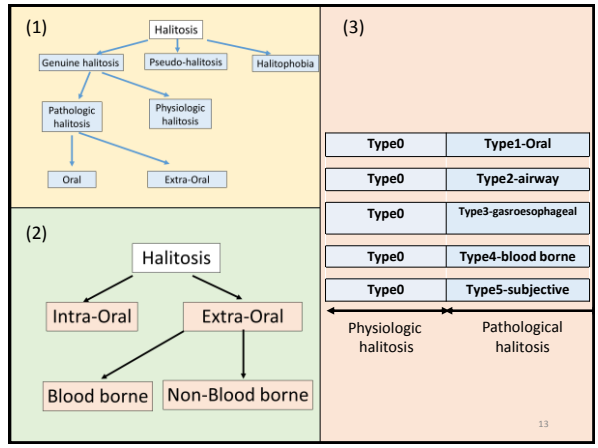

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New classification of halitosis

Genuine halitosis

- Temporary halitosis
- Intra-oral halitosis
- Extra-oral halitosis

- Pseudo-halitosis
- Halitophobia

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Temporary halitosis

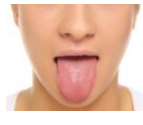
Temporary halitosis is caused by smelling food.

Malodor is caused by dietary factors such as garlic.

Intra-oral halitosis

It is intensity halitosis beyond socially acceptable level or affecting personal relationship.

Its cause is tongue coating or saliva's quality and quantity.



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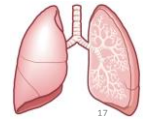
Extra-oral halitosis

Its halitosis originates from outside the mouth, such as nasal.

In case of a blood-borne extra-oral halitosis the malodor is emitted via the lungs and originates from disoders anywhere in the body.



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Pseudo halitosis

Pseudo halitosis is not obvious malodor other perceive. But patient complains its existence.

Their condition is improved by counselling and simple oral hygiene measures.

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Halitophobia

Halitophobia is condition that after treatment for halitosis and pseudo-halitosis, the patient persists in believing to suffer from halitosis.

Although, no physical or social evidence exists for the presence of halitosis.

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Treatment of halitosis

TN1	Explanation of halitosis and instructions for oral hygiene and use of mouth rinsing.
TN2	Professional prophylaxis and treatment of oral pathologic condition.
TN3	Referral to physician, medical specialist or interdisciplinary halitosis specialist.
TN4	Explanation of examination data. Further professional instruction.
TN5	Referral to a clinical psychologist. Psychiatrist or psychological specialist

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Treatment of halitosis

	TN1	TN2	TN3	TN4	TN5
Intra-oral halitosis	○	○			
Extra-oral halitosis	○		○		
Pseudo-halitosis	○			○	
Halitophobia	○				○

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Thank you for your attention.

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"Oral health promotion for people with special needs: research proposal" by Ms. Mitsue Kamisawa.

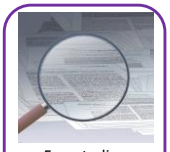
Oral health promotion for people with special needs: research proposal

Mitsue Kamisawa
Department of Oral Health Promotion
Tokyo Medical and Dental University

Background : Social support for people with special needs

To improve their communication and working skills.

Background : Community dwelling people with special needs



Few studies

Poor oral health status

Neglect of their own health

What is the oral health status of people with special needs who take care by themselves ?

Objectives

I. To examine oral health status, behavior and knowledge of people with special needs

II. To compare oral health status between two groups after providing oral health education

Methods : Subjects

Community dwelling people with special needs

Planned number : 60 people

Divide into 2 groups randomly.

Group A

Group B

Study design

Group A

Socio-demographic and medical data

Group B

Baseline — Oral Health Examination (Dr + DH) & Questionnaire (interview)

Oral health education once a month

After 3 months — Oral Health Examination (DH) & Questionnaire (interview)

Oral health education once a month

After 6 months — Oral Health Examination (DH) & Questionnaire (interview)

Data analysis:
1. Comparison of oral health status between A and B groups after 3 and 6 months.
2. Comparison of oral health status after 3 and 6 months interval in each group.

Methods : Oral health examination

- Dentition status (Only at baseline)
- Oral hygiene status (OHI : Oral hygiene index)
- Gingival status (CPI : Community Periodontal Index)
- Tongue coating (Area and Thickness)
- Oral malodor status (Breathtron™)
- Resting saliva (5min)

Methods : Socio-demographic and medical data

- Age
- Gender
- Diagnosis
- Prescribed drugs

Methods : Questionnaire

- Self-reported oral health status
- Tooth brushing behavior
- Frequency of taking snacks and sugary drinks
- Smoking
- Oral health attitude
- Dental visit

Methods : Oral health education

- Basic information about caries and periodontal disease
- Technique of self oral checkup by using mirror
- Tooth brushing and tongue cleaning instructions
- Salivary glands massage and tongue exercises

Practical implementation

1. Oral health status of people with special needs appears to be poor.
2. Adequate oral health education might be able to improve oral health status of people with special needs.
3. This research findings may contribute to the development of oral health promotion programs for people with special needs.

I would like to report the results to you next year.

Thank you for your attention!

"Introduction of Dental health care services in Japan Ground Self-Defense Force (JGSDF)

by Dr. Takashi Tanemura

Introduction of Dental health care services in Japan Ground Self-Defense Force (JGSDF)

TAKASHI TANEMURA
PhD student, OHP, TMDU
Dental Officer,
JGSDF Camp Higashi Tachikawa

Japan Self-Defense Force

JGSDF roles

- Security in surrounding waters and airspace
- Response to attacks on islands
- Response to large-scale disasters
- Response to attacks by ballistic missiles (弾道ミサイル), guerrillas (ゲリラ) or special forces (特殊部隊)
- Countermeasures to aggression in outer space and cyberspace

Dentist

GROUND	150
MARITIME	40
AIR FORCE	30

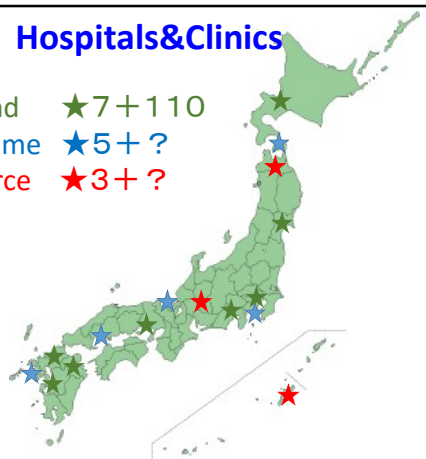
- Dental practice
- Health check up
- Health education

Total dentists 220
Total members 223,000
dentist:members=1:1,013

Dentists of Japan 99,659
Population of Japan 126,800,000
dentist:population = 1:1,272

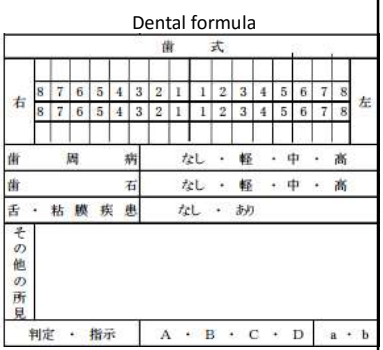
Hospitals&Clinics

Ground ★7＋110
Maritime ★5＋？
Air force ★3＋？

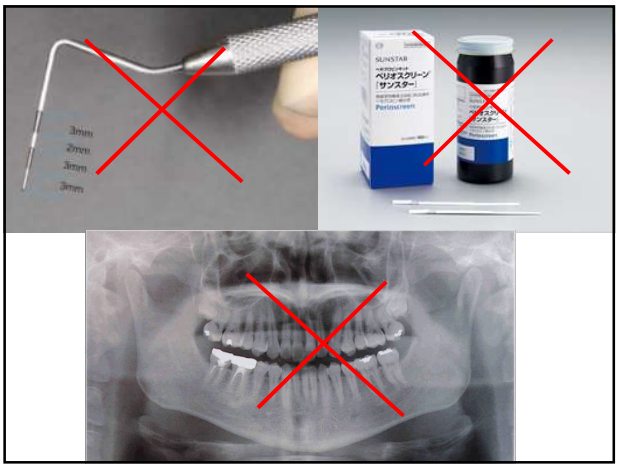


Dental examination

Dental formula



Periodontal disease	歯周病 なし・軽・中・高
Dental caluculus	歯石 なし・軽・中・高
Toung & mucosal disease	舌・粘膜疾患 なし・あり
Other findings	その他の所見
Decision&instruction	判定・指示 A・B・C・D a・b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SUNSTAR
ペリオスクリーン
「サンスター」

平成 27 年 11 月 13 日発行　東京医科歯科大学

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

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