Office of the Chief Dental Officer

Increasing Capacity to Inform Oral Health Policy

The National Perspective -
Canada Health Measures Survey
October 21-22, 2009
Objectives

- What is the Office of the Chief Dental Officer
- Briefly discuss Health Canada’s priorities regarding oral health policy.
- Review of Canadian Health Measures Survey
  - Inuit Oral Health Survey
  - First Nation Oral Health Survey
- Calibration of Examiners
- Oral health Report Card 2010
Background

- Dental disease is the most common chronic disease in children and adolescents in North America.

- It is five times more common than asthma.

- In Canada we spend $10 billion dollars annually on oral health care.

- Dental disease is one of the main reasons for preschool children to receive a general anesthetic.
# Direct Costs of Illness in Canada by Diagnostic Category (1993 vs. 1998)

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Cardiovascular</td>
<td>7,354</td>
<td>6,818</td>
<td>1</td>
<td>1</td>
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<td>Dental Disorder</td>
<td>4,926</td>
<td>6,297</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Mental Disorder</td>
<td>5,051</td>
<td>4,680</td>
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<td>3</td>
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<td>Respiratory Disease</td>
<td>3,787</td>
<td>3,461</td>
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<td>4</td>
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<td>Digestive Disorder</td>
<td>3,326</td>
<td>3,540</td>
<td>4</td>
<td>5</td>
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<tr>
<td>Cancer</td>
<td>3,221</td>
<td>2,462</td>
<td>7</td>
<td>6</td>
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<tr>
<td>Injuries</td>
<td>3,121</td>
<td>3,224</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

*(CIHI, 1999; Leake & Kalyani, 2001)*
Creation of Canada’s Office of the Chief Dental Officer (OCDO)

- Advocating for a Chief Dental Officer (CDO);
  - Over 160 countries in World Dental Federation had a CDO;
- In October 2004, Office of the Chief Dental Officer created;
- Announced by Health Canada in January 2005;
- A five (5) year Strategic Plan reviewed by the Departmental Executive Committee (DEC) annually;
Mandate

- Provide evidence-based oral health perspectives on a wide range of health policy and program development issues
- Provide expert oral health advice, consultation and information
- Integrate oral health promotion with general health (wellness) initiatives
- Assist in gathering epidemiological information for program planning on federal/provincial/community levels and establish priorities for research
- Develop integrated collaborative approaches to preventing and controlling oral and associated diseases
- Provide a point of contact/liaison with professional associations, provinces, academic institutions, and other non-government organizations on oral health issues

The Chief Dental Officer (CDO) reports to the Assistant Deputy Minister of the First Nations and Inuit Health Branch. Because the activities of the office are directed at the Canadian population, the CDO also has a functional responsibility to provide advice directly to the Deputy Minister of Health Canada.

Office web site: www.healthcanada.gc.ca/ocdo
                www.santecanada.gc.ca/bdc
Office of the Chief Dental Officer (OCDO)

External Linkages
- National Associations and Boards. (NGO's)
- Provincial /Territorial Governments
- Teaching Institutions
- International Organizations

Functional Relationship
Reports to

Deputy Minister
Health Canada

Assistant Deputy Minister
FNIHB

Dr. Peter Cooney
Chief Dental Officer

Student Position

Valerie Malazdrewicz
Senior Policy and Integration Advisor

Policy Advisor
Amanda Gillis

Lisette Dufour
Survey Coordinator

Assistant Deputy Minister
FNIHB

Dr. Harry Ames
Assistant Chief Dental Officer

Chantal Rochon
Executive Assistant

Lyne Y Chartrand
Administrative Assistant

Horizontal Linkages
- Other Federal Departments
- Federal Committees

Health Canada Internal Linkages
- Health Canada Branches
- Regions
Priority Areas

1. Needs Assessment
2. Identify Information Gaps
   - Fluoridation status in Canada
   - Public Health Count
   - Provincial Plan Coverage
   - Fluoride policies (Water, Toothpaste)
   - Support for dental health services research
     - Universities, Canadian Institute of Health Research, Knowledge Transfer
3. Health Promotion/
Disease Prevention /
Health Protection

4. Emergency Preparedness
and Response, Forensics
Population of Canada Compared to other countries

Canada
Population 31.9 million

Other Countries
Total Population 2.2 billion

Population of Canada Compared to other countries

Sri Lanka 20M
India 1,080.3M
Bangladesh 144.3M
Nigeria 128.8M
Turkey 69.7M
Costa Rica 4M
Spain 40.3M

Cuba 11.3M
Greece 10.7M
Vietnam 85.5M
Japan 127.4M

Germany 82.4M
United Kingdom 60.4M
Trinidad & Tobago 1.1M

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Priority #1 – Needs Assessment

It has been over 35 years since the last oral health clinical survey was carried out in Canada. As such there is a gap in our understanding on the oral health status of Canadians. The following surveys will fill this gap:

1. Canadian Health Measures Survey (CHMS)
   This survey is led by Statistics Canada and the results will highlight the oral health status of the general Canadian population.

2. First Nations and Inuit Health Oral Health Status
   This survey is being carried out with First Nations and Inuit organizations using the same oral health module protocols as the CHMS and will highlight the oral health status of First Nations and Inuit.

3. Oral Health Status of Homeless in Toronto
   This survey is being carried out with the University of Toronto in partnership with George Brown College. It will use the same protocols as the CHMS and will highlight the oral health status of homeless in Toronto.

4. Senior’s Oral Health in Nova Scotia
   This survey is being carried out by Dalhousie University using the same protocols as the CHMS and will highlight the oral health status of seniors in Nova Scotia.
We use indices:

- An index is a numerical expression which gives a group’s relative position on a graded scale with a defined upper and lower limit.

- Similar to a ruler, it is a standardised method of measurement which allows comparisons to be drawn with others measured with the same index.

- Measure a stage of disease not absolute presence or absence.
Prevalence

- Prevalence describes a group at a certain point in time.
- Similar to a snapshot.
- The prevalence of a disease is the number of cases in a defined population at a particular point in time.
- It is often expressed as a rate -x per 1000 pop.
Uses of a Prevalence Study

- Planning
- Targeting
- Monitoring
- Comparing
  - International
  - Regional
CHMS Steering Committee

- Health Canada
- Public Health Agency of Canada
- Expert Advisory Committee
- National Health and Nutrition Examination Survey (NHANES) USA
- Physician Advisory Committee
- Research Ethics Board
- Stakeholders Research Agencies
- Quality Assurance Advisory Committee
- Privacy Commissioners
- Lab Committee
Considerations

Subject matter specialists addressed:

- Questions to be asked clinically/self report section
- Standardized measurements and protocols
- Training requirements & operation manuals
- Standardized equipment & tools
- Analysis
OCDO Priority #1 (Needs Assessment)
CHMS Objectives

Estimate the numbers of individuals in Canada with selected health conditions, characteristics, exposures

Estimate the distribution and distributional patterns of selected diseases, risk factors and protective characteristics

Monitor trends based on available historical data

Ascertain relationships among risk factors, protection practices, and health status

Explore emerging public health issues

Determine validity of self / proxy data

http://www.statcan.ca/english/concepts/hs/measures.htm
Why do we need to know the health status of Canadians?

- Disease burden on the health care system
- Identify diseases with common risk factors
- Establish public health approaches
- Targeting resources/initiatives
- Resource management
Two components
- Self reported or household interview
- Clinical measures

Mobile survey- 2 sets of 2 trailers

1 collection team (various team members)

Department of National Defence linkages
CHMS Design

- Sample size: 5,000-6,000

- 5 Age / Sex groups:
  - 6-11, 12-19, 20-39, 40-59, 60-79

- 2 year collection

- 15 sites (350 to 375 per site)

- 1 collection team (various team members)

- Department of National Defence linkages

http://www.statcan.ca/english/concepts/hs/measures.htm#3
Selecting the Respondent

Select sampling frame → Select site → Select household → Select person in the household → Household Interview → Clinic visit

15 Sites across Canada:

- Clarington, ON
- Montreal South, QC
- Moncton, NB
- Toronto North, ON
- Montréal Centre, QC
- Kitchener, ON
- Vancouver, BC
- Red Deer, AB
- Quesnel / Williams Lake, BC
- Edmonton, AB
- Mauricie South, QC
- Ville de Québec, QC
- Northumberland County, ON
- St-Catherine's, ON
- Toronto East, ON

Data collection completed February 25 2009
Clinic is open 7 days per week

Staffing:
- Manager
- Logistics officer
- Clinic Coordinators
- Health Measures Specialists (HMS)
- **2 Dentists**
- Lab technicians
- Admin staff
- Interviewer manager
- Interviewers
Central support for;
- Advance arrangements
- Public relations
- Technical support
- Training and retraining
Mobile Examination Clinics
CHMS Household/Clinical Visit

- Household Interview – 1.5 hours
- Clinic - 2 hour appointment
- Consent
- Physical measures including oral health – 2hrs examination
- Initial results immediately available
- Final results in about 6 weeks
- Confirm consent

Consent to Participate

- General consent
- Proxy consent for children
- Assent for children
- Re-consent for children when they turn 14
- Data sharing
- Data linking
- Storage of biological samples
- Reportable infectious diseases
**Topics in the survey**

<table>
<thead>
<tr>
<th>General Health</th>
<th>Oral health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chronic Conditions</td>
<td>Medication use</td>
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<tr>
<td>Restriction of activities</td>
<td>Dietary supplement</td>
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<tr>
<td>Health utility index</td>
<td>Smoking</td>
</tr>
<tr>
<td>Cognition</td>
<td>Alcohol use</td>
</tr>
<tr>
<td>Physical activity</td>
<td>Pain and discomfort</td>
</tr>
<tr>
<td>Sleep</td>
<td>Falls</td>
</tr>
<tr>
<td>Height and weight</td>
<td>Health Care Utilization</td>
</tr>
<tr>
<td>Nutritional risk</td>
<td></td>
</tr>
</tbody>
</table>
Topics in the survey continued

Home care & care receiving
Social participation
Care giving
Loneliness
Transportation
Labour force
Reason for retirement
Retirement planning
Income
Socio demographic characteristics
Self-report Questionnaire Content

- **Health Status:**
  - General Health, Height and Weight, Weight Change, Health Utility Index, Chronic Conditions, Family Medical History, Oral Health

- **Nutrition and Food Consumption**
  - Fruit and Vegetable, Meat and Fish, Dietary Fat, Salt and Other Food, Water and Soft Drink, Milk

- **Medication Use**
  - Medications, Other Health Products and Herbal Remedies

- **Health Behaviours**
  - Physical Activities, Sedentary Activities, Smoking, Alcohol Use, Illicit Drugs, Sexual Behaviour, Sleep

- **Childhood Development**
  - Pregnancy, Birth and Breastfeeding Information

- **Environmental Factors**
  - Exposure to Second-Hand Smoke, Housing Characteristics, Exposure to Toxic Chemicals, Sun exposure

- **Socio-Economic Information**
  - Socio-Demographic Characteristics, Education, Labour Force Activity, Income
Household – Self Reported

- **Considerations:**
  - Establish time allowances
  - Negotiate and defend questions to keep included

- **How to decide? The questions should**
  - Meet the objectives of the oral health component of the CHMS
  - Add context to the measures in clinical survey
The questions should - continued

- allow comparison to questions in clinical component
- allow comparison to international & national surveys

- Are there existing focus tested questions that meet your needs
  - i.e. NHANES & Canadian Community Health Survey (CCHS)
Focus testing of Household Questionnaire
To determine:

- If the questions flow smoothly

- What to add to the interview guide to clarify potential queries on the questions
  - i.e. the use of Stimudent does not qualify as flossing

- If the public’s interpretation of the questions are what was intended
In the past month, have you had: … persistent bad breath?

The word persistent was added to isolate chronic and ongoing cases of bad breath, not simply as a result from eating garlicky food.

Completed in both French and English
Health Issues

- Obesity
- Heart disease
- Lung disease
- Diabetes
- High blood pressure
- Oral health
- Growth and development in children
- Ability to carry out the activities of daily life
Physical Measures

- **Anthropometry**
  - height, weight, waist circumference, sitting height
  - 5 skinfolds

- **Cardiorespiratory Fitness**
  - blood pressure
  - modified Canadian Aerobic Fitness Test (step test)
  - spirometry
Physical Measures continued

- Musculoskeletal Fitness
  - hand grip strength
  - sit-and-reach flexibility
  - curl-ups
- Physical Activity
  - accelerometry
- Oral Health Exam
- Biological Sample collection
  - (i.e; blood and urine)
The objectives of including an oral health module in the CHMS include:

- To evaluate the association of oral health with major health concerns such as diabetes, respiratory and cardiovascular diseases
- To determine relationships between oral health and certain risk factors like poor nutrition and socioeconomic factors related to low income levels and education
- To establish a national baseline level of the DMFT (Decayed, Missing and Filled Teeth)
Linkages between Oral Health and General Health

- Oral disorders affecting systemic conditions (e.g.: diabetes, aspiration pneumonia, adverse pregnancy outcomes, cardiovascular disease,)
- Systemic disorders affecting oral tissues (e.g.: diabetes)
- Medical syndromes (e.g.: osteogenesis imperfecta)
- Oral conditions related to treatment for other systemic disorders (e.g.: loss of saliva due to radiation treatment)
- Oral disease as a precursor of a systemic disease (e.g.: leukoplakia)
- Oral disorders as markers of systemic diseases (e.g.: B12 deficiency; AIDS)

- Oral Health in America: A report of the Surgeon General -
  http://www2.nidcr.nih.gov/sgr/sgrohweb/welcome.htm
13% of adult Canadians have problems chewing
  33% over 65 cannot chew properly
10% of adult Canadians have problems with speech
9% of adult Canadians report toothache once/month

Oral Health in America: A report of the Surgeon General - [http://www2.nidcr.nih.gov/sgr/sgrohweb/welcome.htm](http://www2.nidcr.nih.gov/sgr/sgrohweb/welcome.htm)
A Canadian Oral Health Strategy - [http://www.fotdd.ca](http://www.fotdd.ca)
Social interaction/employability/self-esteem

Productivity costs:
- Lost school days = 100,000 / year
- Lost work days = 270,000 / year
- Restricted activity days = 410,000 / year

Dental Professional and Family Physician Visits

Visits to Dentist and Family Physician, by Income

- % visits dental
- % visits physician

Income ($):
- < 20,000
- 20,000-49,999
- > 49,000

http://www.statcan.ca/english/ads/82-003-XPE/index.htm
“…oral health and general health should not be interpreted as separate entities”


“All people visit physicians. Young, healthy, wealthy, well educated people visit dentists”.


JCDA, 2000, 66 (2): 90
A group of dental experts were brought together to advise on the development of the household and clinical survey.

Members include:
- Professional Associations
- Regulatory Associations
- Academics
- Governments - Federal Provincial Territorial Dental Working Group Chair
- Health Canada
- Canadian Forces
Consideration

Bring together researchers, regulators, professional and government officials from the outset. This is an important step for guiding the development of the survey, the implementation through to the analysis.
Steering Committee Responsibilities

1. Advise in gathering epidemiological information;

2. Develop the oral health module and the clinical survey;

3. Coordinate a pretest to assess the suitability and implementation of the clinical survey including the equipment, the qualitative questions and the calibration of examiners;
4. Assist in the monitoring of the physical survey.

5. Provide advise for the 2010 Oral Health Report
Household Survey
Oral Health Questions

- General health of the mouth
- Satisfaction with appearance of teeth/dentures
- Comfort/avoidance with eating food
- Persistent or on-going pain anywhere in the mouth
- Time away from work, school or normal activities because of dental check-ups, treatment or problems
- Frequency of brushing/ flossing teeth/dentures
- Frequency of seeing a dental professional
- Insurance and cost issues
<table>
<thead>
<tr>
<th>Study</th>
<th>Age of Children</th>
<th>% in need of Restorative Care</th>
<th>% in need of Urgent Care</th>
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</thead>
<tbody>
<tr>
<td>¹Regional Health Survey</td>
<td>0→11 years</td>
<td>27</td>
<td>2</td>
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<tr>
<td>²Oral Health Survey</td>
<td>6 &amp; 12 years</td>
<td>63</td>
<td>8.4</td>
</tr>
</tbody>
</table>

¹First Nations Regional Health Survey Report; First Nations Centre, Laurier Ave. Ottawa, 2002/03.
 Decide on the elements to be examined to allow comparisons to other countries e.g. Australia/Britain/USA

 Choose indices to be used for examination
   Dean’s index vs. Tooth Surface Index of Fluorosis (TSIF)
Considerations continued

- Age/health restrictions for certain questions
  - <18 - no root assessments
  - Haemophiliac - no periodontal probing

- Expected Minimum/Maximum values for answers

- Skip patterns (based on age, restrictions, dentate status, etc)

- Order of questions to maximize skips
Oral Health Clinic Measures

- Dental status, i.e. dentate vs. edentulous
- Prosthetic status
- Mucosal status
- Fluorosis status of children 6-12
- Occlusal status
- Orthodontic treatment status
Oral Health Clinic Measures

- Gingivitis, debris, calculus, attachment loss and probing
- General tooth status (i.e. sound, decayed, extracted/missing, filled, etc)
- Surfaces filled with amalgam
- Trauma status
- Untreated dental conditions
- Prosthetic and treatment needs
Clinical survey developed in 4 separate blocks
- Oral Health Introduction
- Oral Health Question
- Oral Health Restriction
- Oral Health Examination

Each block, tested separately using fictional cases
- Do skips and edits function as expected?
- Does the order of questions make sense?

Another test of the clinical survey occurred once the blocks were integrated
A pretest was held during the summer of 2006

- 10 respondents per age groups 6-11, 12-19, 20-31, 40-59, 60-79

Time estimates of the various age groups

- Including the greeting, exam, post exam verification, cleaning of room and preparation for next respondent
Pre-test continued

- Test entire computer application to see if all skips were thought of or if some were too restrictive i.e. Amalgam question

- Considerations
  - Location
  - Coordinator/ Respondents
  - Timing and tracking of issues
Testing of Clinical Survey

- Block Testing
  - Adjustments
- Pretest
  - Adjustments
- Retesting
  - Adjustments

- Calibration session
  - Adjustments
- Dental Recorder Training
- Dress rehearsal
  - Adjustments
Staffing for the Oral Health Component of the CHMS

- Examiners
  - Canadian Forces dentists
  - Partnership with Health Canada
- Dental Recorders
  - Non health background for dental recorders
  - Trained to enter data, manage dental room & operate sterilizer
Staffing continued

- WHO Gold Standard Dentists
  - 1st calibration session trained 2 Canadian Dentists to run sessions
- Consideration
  - Who is available for the data collection
  - Background
  - Licensing issues
  - Training requirements
Examples of Equipment For the Oral Health Room

- Dental chair light/ Instrument arm tray
- Stool for dentist/dental recorder/ parent
- 1 keyboard and 2 monitors
- Autoclave
- Sink
- Examination packages
  - Williams probe
  - Mouth mirror
  - Gauze/cotton rolls
Equipment continued

- Bins for instruments
- Cupboard space/ racks for bin storage/ tub & tray
- Garbage can
- Goggles
- Hand held mirror
- Mouth model

Consideration:
Size and placement of all materials
Equipment continued

- Infection control materials
  - Surface cleaner
  - Instrument soak
  - Plastic sleeves for chair/tray
  - Masks/ Gloves
  - Sterilizer bags
  - Spore tests
  - Instrument cleaner/brush

**Consideration:**
- Disposable versus reusable instruments
- Sterilizing process
- Number of instruments required to have enough for a week
- Frequency of spore testing- impact the # of instruments
A dress rehearsal was held during February & March 2007

- ensured the timing and flow of respondents and information
- provided the dentists & dental recorders an opportunity to work together
- tested the physical setup of the mobile examination clinic
Both surveys will:
- Collect national level data
- Use CHMS as basis therefore will be comparable with the CHMS
- Collect data between April 1/08- fall, 2009
- Include children Age 3-5
- Jointly analyze data and
- Utilize Health Canada dentists as examiners
- Utilize Health Canada dental examiners
Examples of Potential Challenges

- Language
- Interviewer safety
- Staff concerns about sterilizer
- Calibration
  - Where to hold
  - Volunteers to examine
  - Scheduling and organizing
- Sterilization – on-site or central
- Transportation and lodging
- Equipment problems
Challenges continued

- Obtaining accurate lists of respondents
- Shipping – items may freeze
- Power outages, weather holds
- Obtaining examiners
- Attracting respondents participation
Challenges continued

- **Staff training**
  - Interviewers
  - Coordinators
  - Cross training
  - Video Conference

- **Facilitating access to treatment services through the appropriate local groups.**
Examiners

- CHMS used dentists
- Hygienists and dental therapists have been calibrated.
- Regulatory issues
  - Each jurisdiction different
  - CHMS used dentists as the only provider accepted in all jurisdictions to do the examinations.
- Choice of examiner would depend on the type of survey and jurisdictional issues.
Data Value and Analysis Potential

Endless Possibilities

- Income / attendance / oral health status
- Tobacco use / alcohol use and periodontal health
- Blood mercury levels and amalgams
Possibilities continued

- Preventive practices / deft:DMFT / Periodontal status
- Unknown correlations with blood / urine chemistry
- Human Resource Planning
- Further research needs
Data Storage and Access

- **CHMS**
  - data owed by Statistics Canada
  - Stored by Statistics Canada
  - Access* available by:
    - On-site at Statistics Canada Ottawa
    - Research Data Centres (RDCs)
    - Data request to Statistics Canada

*Data access fees may apply*
Data Storage and Access

- **Inuit Survey**
  - led by Health Canada (OCDO) with our Inuit partners.
  - Data to be stored by Health Canada via MOU with the Inuit Tapiriit Kanatami (ITK)
  - Access to data – requests come to Health Canada reviewed and approved by ITK. Only data that would not identify individuals would be released.
  - Training for interviewers done via videoconference
- **First Nations Survey**
  - Led by Assembly of First Nations with Health Canada as partner
  - Data stored by AFN
  - Access* requests through AFN

*Data access fees may apply*
Oral Health Report Card 2010

- Technical report
- Public report
Oral Health Report Card 2010

- **Technical report**
  - Aimed at private/public oral health professionals and academics
  - Contractor in place to develop and format normative data tables; disease prevalence, Scio-demographic characteristics
  - Oral Health Survey Methods and tools
  - Oral health in Canada past and present
  - Research current status and direction
Public Report
- Developed from the technical report
- Aimed at the general public and other health professionals
- Executive Summary for political and policy audience

Spring 2010 target date for commencement of release.
CHMS – National level data

Canadian Population

Background and history of oral health surveys in Canada

Disease Prevalence (DMFT, deft), Fluorosis status, self reported measures
CHMS – National level data continued
- Socio-demographic – e.g. income, education
- Vignettes – highlighting items that are working well
- Comparisons to other countries
- Review of Oral Health research in Canada
Report Process Steps

- **Technical Contract** - normative tables, history, background
- **Steering Committee** - to review and provide feedback
- **Federal Dental Care Advisory Committee** to review and provide feedback
- **Finalize the technical report**
- **Public Report** - Executive Summary – Review and finalize
- **Report release target Spring 2010**
Sub Group Publications

- Inuit Oral Health Survey – led by the OCDO
- First nations Oral Health Survey - led by AFN
- The Oral Health of our Aging Population - Dalhousie university
- Homeless Oral Health Survey – led by University of Toronto

The release of these reports targeted for fall winter 2010
- World Health Organization (WHO) Gold Standard
- 2 Gold Standard Dentists
- Calibration session 5 days
- Recalibration at start of each site
- 2 day training for dental recorders
Desirable characteristics of an index

- Valid
- Reliable
- Acceptable
- Easy to use
- Amenable to statistical analysis
Validity

- Success in measuring what you set out to measure
- Gold Standard ensures validity
  - i.e. that we are measuring what we propose to measure
  - That we are all measuring the same thing…”singing out of the same hymn book”
Reliability

- The extent to which the clinical examination yields the same result on repeated inspection.

- Inter-examiner reliability: reproducibility between examiners.

- Intra-examiner reliability: reproducibility within examiners.
Reliability

- Calibration ensures inter and intra examiner reliability and allows:
  - International comparisons
  - Regional comparisons
  - Temporal comparisons

- Without calibration
  - Are any differences real or due to examiner variability?
Percent Agreement and Kappa Statistic

Used when:

- Training and calibrating examiners in a new index against a Gold Standard Examiner
- Re-calibrating examiners against a Gold Standard Examiner
### CHMS FN & Inuit Training and Calibration

<table>
<thead>
<tr>
<th>Training for:</th>
<th>Training for continued:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentate Status</td>
<td>Orthodontic Treatment Status</td>
</tr>
<tr>
<td>Prosthetic Status</td>
<td>Periodontal Assessments</td>
</tr>
<tr>
<td>Mucosal Status</td>
<td>Tooth Status</td>
</tr>
<tr>
<td>Fluorosis</td>
<td>Amalgam Count</td>
</tr>
<tr>
<td>Orthodontic Status</td>
<td>Traumatic Injury</td>
</tr>
<tr>
<td></td>
<td>Treatment Needs</td>
</tr>
</tbody>
</table>
CHMS FN & Inuit Training and Calibration

Calibration for:
- Fluorosis
- Orthodontic Status
- Periodontal Assessments
- Tooth Status
- Amalgam Count

Magnification is not allowed for examinations
Calibration session
Considerations:

- Location
  - Need dental chairs available (dental training facility or portable equipment)

- Trainers
  - WHO Gold standard level
  - Run the session and to whom the dentists calibrate against

- Coordinator
  - Logistics/obtaining consent & health restrictions/entering data
Calibration session
Considerations:

- Respondents
  - Variety of ages and dental conditions
- Fluorosis & Periodontal Indices
  - Difficult to calibrate; allow enough time
- Analyzing results
  - Percent agreement & Cohen's kappa scores calculated where possible
- Updating Protocol Manual
  - A few issues arose to be addressed by the Steering Committee
Ongoing training and quality control

CHMS

- Dry run day
  - One day at the start of each site

- Fluorosis testing
  - Done at least 2 times per site (usually 3)

- Recalibration on elements
  - As required
Questions/Discussion

off the mark.com by Mark Parisi

BUMMER ABOUT THOSE RECEeding GUMS...