The Oral Health of Our Aging Population

(TOHAP)

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TOHAP
Survey of the oral health of adult Nova Scotians age 45+
TOHAP - Sample Size

Target of 1100 participants:

- 400 community residents 45-65
- 400 community residents 65+
- 400 long term care residents 45+
TOHAP - Objectives

➤ Clinical oral health status (baseline)
➤ Utilization of oral health services
➤ Impact of oral health on quality of life
➤ Personal oral care habits
➤ Treatment needs
TOHAP - Components

1. Interview

2. Clinical Oral Exam
TOHAP - Relevance

What is Oral Health?

“Oral health is a state of the oral and related tissues and structures that contributes positively to physical, mental and social well-being and the enjoyment of life’s possibilities, by allowing the individual to speak, eat and socialize unhindered by pain, discomfort or embarrassment.”

(CDA Board of Governors, March 2001)

★ Has both physiologic and psychosocial significance
TOHAP - Relevance

➤ Dental decay is most prevalent disease worldwide

➤ Dental caries and periodontal disease
  ➔ tooth loss and pain
  ➔ chewing problems
  ➔ low BMI and involuntary weight loss
  ➔ social embarrassment
TOHAP - Relevance

➤ Link between periodontal disease and systemic disease

• ↑ risk of fatal stroke
• ↑ risk of respiratory infections
• control of blood sugar levels in diabetes

➤ Oral cancer → 50% 5 year survival rate
TOHAP - Rationale

➤ In order to implement change in services or policy we need data on the current status of oral health

➤ Until recently, no national oral health database

➤ No data on oral health of adults in Nova Scotia
TOHAP - Why Older Adults?

➤ Seniors are a vulnerable population
  • Many factors make access to oral health care difficult

➤ Fastest growing segment of the population

➤ No policies and practices for managing seniors oral health care
TOHAP - Why Older Adults?

➤ More older adults are retaining their natural teeth

➤ “Baby-boomers” likely to have different needs and expectations for care than preceding generation
TOHAP - Pilot Study

TOHAP preceded by Seniors Oral Health Assessment Project (SOHAP)

- N = 146
- Rural and Urban
- Dependent and Independent Living
Pilot Study - Results

- 48% had active dental decay in 1 or more teeth
  - average of 2 carious lesions/person
- 25% had at least one unrestorable tooth
- 78% had periodontal disease
- 29% had advanced periodontitis
- 90% of dentures needed repair
Pilot Study - Results

➤ 75% had no 3rd party dental payment plan

➤ 69% had annual income <$30,000

➤ 60% who reported problems had received no treatment in past year
TOHAP - Components

1. Interview

2. Clinical Oral Exam
TOHAP Interview

Adults living in Community:

➤ recruited by telemarketing company
  ➔ Toronto-based, trained interviewers
  ➔ communities chosen based on proximity to previously selected LTC facilities
  ➔ call list generated by a supplier
    • location and age of potential interviewees
TOHAP Interview

Adults living in Community:

➤ Interview conducted over phone
➤ Survey information given
➤ Consent obtained to complete the telephone survey AND agree to a clinical examination
➤ Appointment for exam by arrangement with examining dentists using an online appointment system
TOHAP Interview

Adults living in Community:

➤ scheduled an appointment for clinical exam at:

• long term care facility
• local private dental offices
• public health office
• hospital
TOHAP Interview

Adults in Residential Facilities:

- Facilities randomly selected from list of all NS LTC and assisted-living facilities with >20 residents
- Sampled proportionate to size (S, M, L) and Rural/Urban location
- 31 facilities
TOHAP Interview
TOHAP Interview

Adults in Residential Facilities:

- Participants were recruited by administrator or director of care
  - 45+
  - able to give informed consent
TOHAP Interview

Adults in Residential Facilities:

1. interview conducted in person by Research Assistant
2. followed immediately by clinical exam on site
TOHAP Interview
TOHAP Interview

➤ 71 Questions (10-25 minutes)

Sources

• OHIP-14 (Oral Health Impact Profile)
• SOHAP (Pilot study)
• CHMS (Canada Health Measures Survey)
TOHAP Interview

Demographics:
- Age, sex, marital status
- Education
- County of birth
- Languages spoken and read
Dalhousie Oral Health Study

Patient ID code ________________________
Date of Interview ______________________
Interviewer Code ________________________
Name of LTC Facility ______________________

Living situation (circle one): LTC Independent Assisted

Q1  TOHAP_AWC_Q01 Before we begin, can you please provide your year of birth [OPEN]
    19 __

Q2  If refuse to answer Q1 ask [CLOSED]
    Is it between
    1  1944-1965
    2  <1944

Q3  Do not ask respondent [OPEN]
    SEX_Q01 Sex
    1  Male
    2  Female

Q4  MSWC_Q02 What is your current marital status? [OPEN]
    1  Married
    2  Living common-law
    3  Widowed
    4  Separated
    5  Divorced
    6  Single, never married
    25  Refuse to Answer
TOHAP Interview

➤ Oral Health

➔ Quality of life: “How often, in the past year have you… because of problems with your teeth, mouth or dentures?”
  • Likert-type scale
ORAL HEALTH

Next, some questions about the health of your mouth, including your teeth or dentures, tongue, gums, lips and jaw joints.

Q13  OHM_Q11 In general, would you say the health of your mouth is: [CLOSED]

INTERVIEWER: Read categories to respondent.
1 ☐ Excellent
2 ☐ Very Good
3 ☐ Good
4 ☐ Fair
5 ☐ Poor
25 ☐ Refuse to Answer

Q14  OHM_Q12 How satisfied are you with the appearance of your teeth and/or dentures? [CLOSED]

1 ☐ Very satisfied
2 ☐ Satisfied
3 ☐ Neither satisfied nor dissatisfied
4 ☐ Dissatisfied
5 ☐ Very Dissatisfied
25 ☐ Refuse to Answer

Q15  OHIP/SOHAP 8. How often, in the past year, have you had trouble pronouncing any words because of problems with your teeth, mouth or dentures? [CLOSED]
1 ☐ Very Often
2 ☐ Fairly Often
3 ☐ Occasionally
4 ☐ Hardly Ever
5 ☐ Never
24 ☐ Don't Know
25 ☐ Refuse to Answer
TOHAP Interview

➤ Oral Health

➔ Personal oral care habits

➔ Oral health care services utilization
Q31  SOHAP_29. Right now, whom do you attend routinely for your dental care?  [CLOSED]
[Select all that apply.] ?
1  □  Dentist
2  □  Dental hygienist
3  □  Denturist
4  □  Physician
5  □  Nobody
6  □  Other
24  □  Don't Know
25  □  Refused

Q32  OHM_Q33 How often do you usually see a dental professional?  [CLOSED]

INTERVIEWER: Read categories to respondent.
1  □  More than once a year for check-ups or treatment?
2  □  About once a year for check-ups or treatment?
3  □  Less than once a year for check-ups or treatment?
4  □  Only for emergency care?
5  □  Never?
24  □  Don't Know
25  □  Refuse to Answer
TOHAP Interview

➤ General Health
  ➔ Quality of life
  ➔ Chronic conditions
➤ Medication use
TOHAP Interview

➤ Smoking
➤ Alcohol consumption
➤ Sun exposure
Now, I am going to ask you about cigarette smoking. By cigarettes, we mean both ready-made cigarettes and ones you roll yourself, excluding cigars, cigarillos, marijuana or pipes.

Q54  SMK_Q12 At the present time, do you smoke cigarettes daily, occasionally or not at all? [CLOSED]
  1 □ Daily
  2 □ Occasionally (GO TO Q56)
  3 □ Not at all (GO TO Q57)
  24 □ Don't Know (GO TO Q61)
  25 □ Refuse to Answer (GO TO Q61)

Q55  SMK_Q31 How many cigarettes do you smoke each day now? [OPEN]
  25 □ Refuse to Answer (GO TO Q59, THEN Q61)

Q55.a Enter Amount _____ (GO TO Q59, THEN Q61)

Q56  SMK_Q41 On the days that you smoke, how many cigarettes do you usually smoke? [OPEN]
  25 □ Refuse to Answer

Q56.a Enter Amount _____

Q57  SMK_Q51 Have you ever smoked cigarettes daily? [OPEN]
**ALCOHOL**

**Q62**  ALC_Q17 Have you ever had a drink of alcohol? [OPEN]
1  □ Yes
2  □ No (GO TO Q66)
24  □ Don't Know (GO TO Q66)
25  □ Refuse to Answer (GO TO Q66)

**Q63**  ALC_Q11 During the past 12 months, have you had a drink of beer, wine, liquor or any other alcoholic beverage? [OPEN]
1  □ Yes
2  □ No (GO TO Q65)
24  □ Don't Know (GO TO Q65)
25  □ Refuse to Answer (GO TO Q65)

**Q64**  ALC_Q12 During the past 12 months, how often did you drink alcoholic beverages [OPEN]
1  □ Less than once a month
2  □ Once a month
3  □ 2 to 3 times a month
4  □ Once a week
5  □ 2 to 3 times a week
6  □ 4 to 6 times a week
7  □ Every day
24  □ Don't Know
25  □ Refuse to Answer
TOHAP Interview

➤ Labour force activity
➤ Income
### LABOUR FORCE ACTIVITY

**Q66** TOHAP Are you currently employed? [OPEN & CLOSED – YES/NO REQUIRES PROMPTING]

1. Yes – Full Time (GO TO Q68)
2. Yes – Part Time (GO TO Q68)
3. No – Retired
4. No – Unemployed
5. Permanently Unable To Work (GO TO Q68)
24. Don't Know (GO TO Q68)
25. Refuse (GO TO Q68)

**Q67** TOHAP Have you performed any sort of work over the past 12 months? (part-time jobs, seasonal work, contract work, self employment, baby-sitting and any other paid work, regardless of the number of hours worked) [OPEN]

1. Yes
2. No
24. Don't Know
25. Refuse to Answer
TOHAP - Components

1. Interview

2. Clinical Oral Exam
TOHAP Clinical Exam
TOHAP Clinical Exam

➤ Sources:
   ➡ Canada Health Measures Survey
   ➤ Conducted by 1 of 5 dentists
   ➤ Calibrated to WHO standards
   ➤ Data entered into directly into computerized database by research assistant
Examination by a dentist
Data entry into computer
(online, or stored and entered into database later)
TOHAP Clinical Exam

➤ Oral Health Questions
  ➡ Untreated conditions
  ➡ “In the past month have you had…”

➤ Restrictions to probing

➤ Dentate status

➤ Prosthetic status and quality
Please Enter at Least One of the Following Fields:

Sample ID: 

First Name: 

Last Name: 

Submit
TOHAP Clinical Exam

➤ Jaw function
➤ Mucosal status
➤ Orthodontic status
➤ Gingival status (scale of 1-4)
TOHAP Clinical Exam

➤ Periodontal Assessments
   ➔ Debris index (0-3)
   ➔ Calculus index (0-3)
   ➔ Attachment loss (mm)
   ➔ Probing Depth (mm)

➤ Tooth status

➤ History of traumatic injury

➤ Treatment needs
TOHAP Outcomes - Locations

➤ Community Sites
   ➔ 22 communities

➤ LTC Sites
   ➔ 31 facilities in 21 communities
### Tooth Status

**OHE_N41-Record crown and root status for each tooth.**

<table>
<thead>
<tr>
<th>Tooth</th>
<th>Crown</th>
<th>Root</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Decayed severely</td>
<td>Decayed – smooth surface caries</td>
</tr>
<tr>
<td>16</td>
<td>Missing – due to caries or periodontal disease</td>
<td>Missing – due to caries or periodontal disease</td>
</tr>
<tr>
<td>15</td>
<td>Sound – never decayed or restored</td>
<td>Sound – never decayed or restored</td>
</tr>
<tr>
<td>14</td>
<td>Missing – due to caries or periodontal disease</td>
<td>Missing – due to caries or periodontal disease</td>
</tr>
<tr>
<td>13</td>
<td>Filled with other material, but filling is defective and needs replacement</td>
<td>Sound – never decayed or restored</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Final Sample Size

➤ **Community**
  ➔ 384 Interviews only
  ➔ 10 Exam only
  ➔ 737 Exams + interviews

➤ **LTC**
  ➔ 330 Exams + interviews
  ➔ 5 Exams only
Interviews
N=1451

Examinations
N=1082

Exam + Interview
N=1067
Community Interviews

➤ **Age category:**
  ➤ < 65: 55%
  ➤ 65+: 45%

➤ **Sex:**
  ➤ 37.9% Males
  ➤ 62.1% Females

➤ **41.7% Rural, 58.3% Urban**
Preliminary Data - LTC

- 31 LTC Facilities
- Sex
  - 24.5% Male
  - 75.5% Female
- 41.8% Rural, 58.2% Urban
- Mean age = 81± 11.6 years
  - range 45 – 104 years
Preliminary data - LTC

➤ 26.6% - received regular dental care
➤ 76.7% - < high school education
➤ Median income level
  ➔ CAD $10-20,000
Preliminary Data - LTC

- 41% completely edentulous
- Mandibular dentures
  - 59.7% not retentive
  - 50.9% not stable
- Maxillary dentures
  - 21.9% not retentive
  - 30.4% not stable
Preliminary data - LTC

- 58.8% - mucosal abnormality
- 35.9% - xerostomia
- 24.3% - (self-reported) untreated dental conditions
- 14% - pain in their mouth or teeth in the past month
Preliminary data - LTC

➤ YET…. 75.2% described their oral health as good to excellent
TOHAP Outcomes

Future Analysis

- Descriptive statistics on:
  - Demographic characteristics
  - Prevalence of oral disease
  - OHIP scores (Quality of life)
  - Oral health care services utilization
  - Treatment needs

- Comparison of age groups (45-65 vs 65+)
- Comparison of rural and urban
- Correlational analyses
Lessons Learned

What do you need to do a survey?
Good Teams
Coordination
Portable Equipment
The ability to improvise...
The ability to improvise...
The ability to improvise...
The ability to improvise...
It may be a tight fit at times...
It may be a tight fit at times...
Lessons Learned

➤ **Flexibility** is important

→ Use variety of locations
  
  • LTC
  
  • Dentists’ offices
  
  • Hospitals
  
  • Public health offices

→ Be able to improvise

→ Be able to accommodate less mobile participants
Lessons Learned

➤ Sometimes have to work long days in less than ideal circumstances
Lessons Learned

➤ Communication is key
 ➔ Generate awareness in the community
   • Concerns about fraud
   • All reception staff at any given survey site should be kept informed
Lessons Learned

➤ Interview should be tested in different situations

→ LTC residents (in person)
→ Community residents (on phone)
Lessons Learned

➢ Using a telemarketing company - **Pros**
  ➢ Time efficient
  ➢ Made reminder calls
  ➢ Knowledgeable about marketing research
  ➢ Responsive to concerns and queries
  ➢ Friendly pleasant interviewers
Lessons Learned

➤ Using a telemarketing company - **Cons**

→ Expensive

→ Not local

→ Difficult to monitor how surveys were done
  • Quality control issues
Lessons Learned

➤ Using a telemarketing company – **Cons**

- Personnel issues
  - Inappropriate questions
  - Inaccurate/unclear information given

- Some participants wary of telemarketers

- Data quality issues
  - Close monitoring required
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