Improving Community Nutrition Care for Older Adults in Canada

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Overview

- Older adults in Canada
- Prevalence of nutrition risk
  - Types of risk factors
- Prevention in Canada
- Community Services
  - Home care
  - Meal programs
- Some exemplary programs
  - Evergreen Action Nutrition
- Screening as a means for changing the agenda
  - E-SCREEN
Older adults in Canada

- Population of Canada ~34 Million
- 13.9 % are over the age of 65 (2009)
- By 2050 12-15 million older adults

- Ontario
  - Largest province in population ~ 25%
  - Second largest in total area
- 14.1% are older adults
- 23.5% of Ontarions by 2036, ~4 million

- OAS & GIS max ~$1257 /month ~$15,000/year for single + provincial suppl assistance
Some definitions

**Nutritional risk**: risk factors are present that could lead to malnutrition (Reuben, 1995)

**Screening**: the examination of asymptomatic people in order to classify them as likely or unlikely to have the disease that is the object of screening (Morrison, 1985); process of identifying characteristics known to be associated with nutrition problems (ADA, 1994)
Screening and Assessment Across the Continuum of Care for Older Canadians

Primary Prevention

Secondary Prevention

Tertiary Prevention

DETERMINANTS

Phase 1
Risk Factors Present
- appetite
- swallowing
- chewing
- restrictive diet
- FADL
- food security

Phase 2
Impaired Food Intake
- food groups
- nutrients
- energy

Phase 3
Sub-clinical Malnutrition
Changes in:
- weight
- anthropometry
- biochemistry

Phase 4
Overt Malnutrition
Significant changes in:
- weight
- anthropometry
- biochemistry

INTERVENTIONS

Educational materials
Food demonstrations
Cooking groups
Meal programs

Transportation help
Meal preparation help

Individualized counseling
Meal programs
FADL assistance
Meal supplementation

Adapted from Keller, 2007
What is SCREEEN?

Seniors in the Community: Risk Evaluation for Eating and Nutrition
SCREEN

- SCREEN can be self or interviewer administered
- Expert involvement in wording
- Seniors involved in development
- Abbreviated version also available
- Validated against a dietitian’s rating of nutritional risk

- Demonstrated test-retest reliability
- Intermodal, inter-rater reliability
- SCREEN program
  - Referral process based on identified risk items
- E-SCREEN

EJCN, 2005; J Clin Epi, 2007
# Prevalence of Risk in Canada

<table>
<thead>
<tr>
<th>Author</th>
<th>Sample</th>
<th>Tool</th>
<th>Prevalence</th>
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<tbody>
<tr>
<td>Tannenbaum &amp; Shatenstien 2007</td>
<td>Postal sample</td>
<td>SCREEN I</td>
<td>34% (HR)</td>
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<tr>
<td>Roberts, Wolfson &amp; Payette 2007</td>
<td>75+ y; random sample</td>
<td>Nutrition Risk Tool</td>
<td>60%</td>
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<tr>
<td>Keller et al., 2007</td>
<td>5 communities across Canada</td>
<td>SCREEN</td>
<td>42%</td>
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<tr>
<td>Statistics Canada</td>
<td>CCHS sample 2008</td>
<td>Abbreviated SCREEN II</td>
<td>33% (HR)</td>
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</table>
Canadian Malnutrition Task Force:
Results of Phase I Hospital Nutrition Study
Prevalence of Malnutrition at Admission and Discharge Based on SGA and Albumin

<table>
<thead>
<tr>
<th>Albumin ≤ 35 g/L (%(n))</th>
<th>Admission</th>
<th>Discharge</th>
<th>p-value</th>
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<tbody>
<tr>
<td>68.4 (104/152)</td>
<td>58 (55/94)</td>
<td>0.012</td>
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</table>
What are some specific concerns?  CJDPR, 2003

367 vulnerable seniors; 20% hospitalized in prior 6 months
- Weight change 33%; loss 22%
- Restricts food 45%
- Low fruit/vegetable intake 48%
- Chewing difficulty 34.6%
- Swallowing difficulty 22.9%
- Poor Appetite 28%
- Cooking difficulty 42%
- Shopping difficulty 69%
Primary Prevention
- Public Health Units, PC

Secondary Prevention
- PHU, PC, SSA, Wellness Programs

Tertiary Prevention
- SSA, Clinics, Home Care, hospitals
Potential Services

Secondary Prevention
• Meal programs
  - MOW
  - Congregate dining
• Seniors centres
• Transportation
• Grocery delivery service
• Parish nurse
• Eat Right Ontario
• Falls risk prevention

Tertiary/Quaternary Prevention
• Geriatric day hospital
  – Geriatrician
• Home care
  – Speech pathologist
• Registered Dietitian
  – FHT
• Physician
  – Referral to RD
  – Referral to speech pathologist
Community Nutrition Policy
For Older Adults in Canada

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Abstract

Purpose: Current prevention-focused nutrition policy for community-dwelling older adults in Canada is discussed.

Methods: Government websites were searched and key informants asked to identify relevant documents and policies specific to older adults. These were reviewed to find specific legislation on community nutrition programs for older adults.

Results: Despite this population’s known nutritional risk, policies guiding community nutrition programs are extremely limited. Current policies and significant documents and organizations that could influence legislation are acknowledged.

Conclusions: Dietitians in diverse settings need to advocate for specific policy concerning preventive nutrition programs for older adults in Canada.

(DOI: 10.3148/69.4.2008.198)
Home Care in Canada

- Not part of Canada Health Act
  - ‘extended” service
  - No minimum basket of services
  - Social and medical services
  - Differences in service delivery models across Canada and within region
- Focus on post-acute care vs. long-term HC

15% over 65 receive HC
Almost 100% growth from 1995 to 2006
4.2% of health care $
More spent privately

Canadian Healthcare Association, 2009
Nutrition in Homecare

- RD based on referral
  - Primarily disease based, wound care
  - < 2% of service visits; decreasing use in Ontario

- Home aids/PSW vary
  - SK, ON. Qc can come in for meal preparation
  - ON, AB not seen as a primary service

- Inter-RAI used in most provinces
  - Very downstream nutrition problems ; ~15% trigger
    - Quaternary prevention
      - Loss of appetite; unintended wt lost 5% in 30 d (10% in 180d); cachexia, 1 or fewer meals in last 2 of 3 d; decreased intake past e d; insufficient fluid; EN; MTF/fluid; no oral intake

- Meal programs- referred, SSA or LTCH
  - Subsidized, fee for service
  - Fee appeal
Screening and Assessment Across the Continuum of Care for Older Canadians

**Primary Prevention**

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**INTERVENTIONS**

**Educational materials**
- Food demonstrations
- Cooking groups
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**Transportation help**
- Meal preparation help

**Individualized counseling**
- Meal programs
- FADL assistance
- Meal supplementation

Adapted from Keller, 2007
Other Community Services for FADL

- Sporadic and vary by province
  - Lack provincial policy and $
- Chronic disease prevention (AB/SK)
  - Education, counseling
  - ~30% OA (AB)
  - FHT provide in ON; few OA
- MOW, congregate dining, fresh food boxes, grocery shopping services, wellness programs
What seniors want...
Some Exemplar programs

- **Evergreen Action Nutrition**: rec centre, wellness program
  - Food workshops, cooking groups, garden box, credible resources, screening, RD counseling
- **Kerby centre**: rec centre, outreach to vulnerable seniors
  - Day program, grocery service, wellness program with screening
- **HHNB meal programs**: nutrition screening
  - At intake to identify priority clients and facilitate other service referrals
- **Sudbury District Health Unit**: inter-sectoral collaboration on screening
  - PHU, meal programs; nutrition screening as a means of facilitating service need identification and delivery
- **E-SCREEN**: self-management, internet based screening
Methods
• SCREEN and participation survey
  – Pre/post (247/251)
  – Random sample; not same individuals
• Post activity evaluation
  – Change in behaviour, knowledge

Results
• Program reach 65%
  – 51% had frequent participation
• Flexible, self-management preferred
• Improved intake of F &V
• More engaged, greater reporting of change in food practices
• Participants more healthy nutrition attitudes/beliefs
Workshops

• 71% report planning to try recipes at home
• 42% planned to increase intake of certain foods; 14% planned to decrease

Series workshops:
- 98% made changes after the workshop
- 89% reported increased nutrition knowledge
- 50% reported increased pleasure from eating
Men’s Cooking Group

- 30 men joined
- On average attended 8/10 sessions
- 90% report learning new skills
- 79% report using recipes at home

New skills:
- Recipe reading
- Proper sanitation
- Safe preparation of food
- How to combine foods/ingredients, experiment
Diabetes Support Group

- 38 diabetics attended over a 2 year span
- 88% came at least 1/month
- 91% had received prior diet instruction
- 94% said group was helpful

New knowledge/skill...
- handling diabetes crises
- Positive attitude towards eating and food
- 50% changed diet, 56% lost weight, 50% lower blood sugars
How Screening can Promote Secondary Prevention

- Needs assessment
- Manage waiting lists
- Provide additional service
- Refer to other community programs
- Evaluate programs
- Raise awareness of seniors/family of risk to prompt behaviour change
Nutrition Screening—Benefits to Older Adults
CJDPR, 2007

- Convenience n=1196; mean age 74 y; 75% F
- 60% lived alone; 21% PS or less
- 5 diverse communities
  - New Brunswick: CHC, MOW, Wellness Centre, VON
  - Toronto: SPRINT- CD, MOW, Social work, seniors program, CCAC, supportive housing
  - Timmins: VON, francophone
  - Interlake: Regional Health Authority, CD
  - North & West Vancouver: North Shore Keep Well Society, Senior centres, geriatric frail, peer visiting
Risk

• 39% scores < 50
• Common problems
  - weight change
  - fruit & vegetable intake
  - cooking difficulty
  - shopping difficulty
  - diet restrictions
• 85% thought screening helpful
Example of a SCREEN Program:

Meals on Wheels Referral Map

- Senior at Risk
  - High Risk
    - Provide 5 meals per week
    - Check non-food items for risk
    - Refer
  - No-moderate
    - Check food intake
      - Items for risk
      - Refer

- Senior not at Risk
  - Provide info on other meal programs

- Provide 3 meals per week
  - Congregate Dining
  - Home care
  - Speech Path, Dietitian, Dentist
60% of seniors “at risk” refused referrals
  – Felt current services sufficient, nutrition not a priority, education materials
  – More at risk accepted, previous experience with services

62% of referrals made to a dietitian
  • Barriers: long wait, cost, access, doctor referral

23% referred to Meals on Wheels
  • Barriers: cost, dislike of food
Can seniors change their eating behaviour without services?  

CJ DPR, 2010

Pilot study on behaviour change with print materials
RCT, knowledge, nutrition risk with SCREEN
Individualized letter or Letter + Food for Aging Well booklet
N= 44 completed

<table>
<thead>
<tr>
<th></th>
<th>Personalized Letter Only</th>
<th>Personalized Letter + Education Guide</th>
<th>Δ</th>
<th>P-value</th>
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<tbody>
<tr>
<td>Δ SCREEN II</td>
<td>1.05</td>
<td>1.95</td>
<td>0.902</td>
<td>0.522°</td>
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<tr>
<td>Δ DKAQ Score</td>
<td>1.36</td>
<td>5.43</td>
<td>4.065</td>
<td>0.018</td>
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- Knowledge change was not associated with demographics or risk status
Eating Habits Survey

Welcome! If you are an older adult, this questionnaire will help you find out how you are doing with choosing foods that help you stay healthy and active.

Answer 14 short questions about your eating habits. This should take about 10 minutes.

Welcome

Your Benefits
- What you eat impacts your health
- Find out what you are doing well
- Find out where you can improve
- Learn about some steps you can take to improve your eating habits

Your Results
- Step 1 Tell us a bit about yourself
- Step 2 Complete all 14 questions
- Step 3 When you are finished, we will tell you your results
- Step 4 Find nutrition resources and links to help you to improve your habits

Click Here To Start
Differences between ...  

**SCREEN**

- Paper and pencil/Electronic
- Self or interviewer
- Context of a screening program
- Administrator to help with completion
- Administrator tallies score and communicates to OA
- Refers and provides resources based on their screening program map
- Stores individual scores for comparison

**e-SCREEN**

- Internet
- Self only
- Not to be used as part of a screening program - self management
- Audio prompts to assist
- No score/ ERO cannot access directly
- Standardized response pages using clear, proactive language
- Selected quality resources available if desired by OA
- Surveillance level data only
Research Priorities in Canada

• Demonstrating the effectiveness of nutrition screening programs in the community

• Best practices for transition to the community from hospital
  – Can screening play a role?
  – What forms of communication are needed between sectors?

• Social care model vs. medical need model of home care services
Summary

• Nutrition problems consistent with US
• Fractured community system
  – Regional exceptions (Qc- but still varies)
• Older adults want to improve their nutrition
• Inadequate funding for secondary prevention
  – Need not identified due to downstream nutrition risk identification
• Screening programs can lead to secondary prevention
• There is a place for self-management of nutrition and this needs to be supported
References


