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Finding Common Ground:
Dietitians' Best Practices for Treating High Cholesterol

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Outline

- Study Rationale
- Goal
- Methods
- Results
- Conclusions

Dyslipidemia

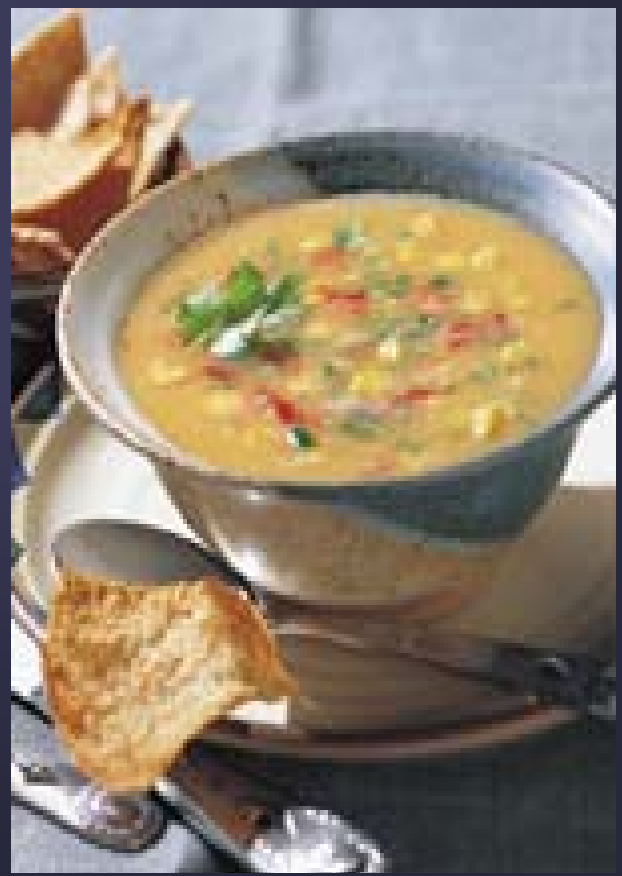
- High cholesterol and triglyceride levels
- Causes cardiovascular disease
- Few signs and no symptoms
- Prevalent
  - 16-18% adults have high levels (>6.2 mmol/L)

Diet Treatment

- Can **reduce or eliminate the need for drugs**
- Reviews show:
  - Biological responsiveness to diet varies widely
  - 5% decline in community studies (3.5-13%)
- Complex dietary effects
  - Largest effect with change in saturated fat intake
  - Additive effects with some diet changes
  - Possible contradictory effects

Diet Counselling

- Individualized, behavioral intervention
  - Average person eats 40-80 different foods
  - Must be ready and able to change eating
  - Behaviour change takes weeks to months



Health System Practice

- Practice less intense than trials
- Uptake of evidence and guidelines variable
- Variable RD practice, especially follow-up
  - Previous national survey on dyslipidemia
    - Can J Diet Prac Res 2002; 63:10-19.

Guidance on Practice?

- 96% of survey respondents felt counselling guides were needed
- UK research shows need for guidance developed by diverse stakeholders

Study Goal

- **Question** → What counselling processes are applicable, feasible, relevant and effective in the majority of clients?
  - Provide guides for current practice
  - Basis for future effectiveness studies
- **Goal** → Consensus Based Care Map
  - Delphi process

Methods….

- √ Frame issues
- √ Describe options/care process
- Engage practitioners
- Determine agreement
- Assess degree of agreement

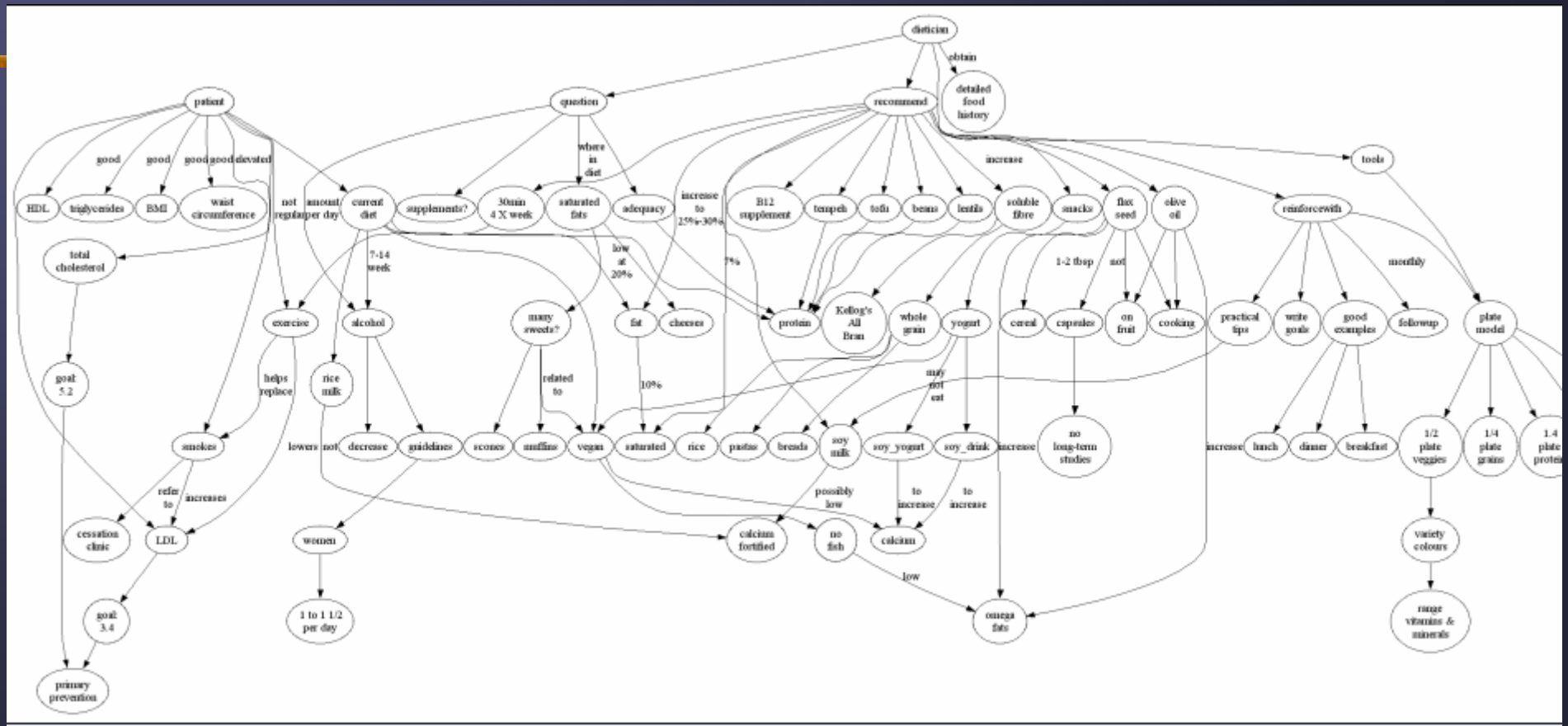
Client Characteristics

- Demographic
  - Older age, Male, Higher education/income
- Physiological
  - Higher initial cholesterol level
- Nutritional
  - Higher initial fat and cholesterol intake
- Psychological
  - Positive intention
- Clinical
  - Risk equation factors

Methods

- Created 24 diverse client scenarios
- Dietitian Interviews
  - Convenience sample
    - 4 new grads, 4 generalists, 4 specialists
  - Audio-taped and transcribed
- Cognitive analysis by Jose Arocha
- Identified 149 processes of care options

Cognitive Map for One Client Scenario



Methods….

- Frame issues
- Describe options/care process
- √ Engage practitioners
- Determine agreement
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Consensus Process Recruitment
(Total n=49)

- Practice Guideline Workshops offered to all DC regions (n=38)
  - 6 workshops conducted:
    - BC – Vancouver and Victoria
    - AB & Territories – Calgary
    - CSO – Toronto
    - PQ & NE / E ON – Ottawa
    - Atlantic – Nova Scotia
- Invitation to nominate expert practitioners (n=7)
- Recruitment of clinicians (non RDs) (n=4)

Methods….

- √ Frame issues
  - Select client subset for Delphi process
- Describe options/care process
- Engage practitioners
- Determine agreement
- Assess degree of agreement

Survey participants

About what percentage of your clients with dyslipidemia have the following characteristics?

	Low <20%	20-39%	Med 40-59%	60-79%	High >80%	Don't Know
Client is 40 to 60 years of age					X	
Client is on lipid lowering medication					X	
Client eats less than 5 servings V&F / day					X	

Results - on 5 point Likert scale

- Most common
  - Middle age (40-60)
  - On lipid lowering medication
  - High blood pressure
  - Overweight
  - Sedentary (defined as 30min/day)
  - High fat intake (>35%)
  - <2 servings of milk products/day

Focus on 5 Common and Challenging Types of Clients

Age Group	CVD	Diabetes	Hyper-tension	Smoker	Additional
40-60	No	Yes	No	No	No major barriers
40-60	No	No	No	Yes	Major time barrier, higher alcohol consumption
40-60	No	Yes	No	No	Language and income barriers
>60	Yes	No	Yes	Yes	Mental health problems, income, and food access barriers
>60	Yes	No	Yes	No	Multiple health problems

ALL: • overweight or obese • high fat diet
• potentially motivated to make lifestyle changes

Methods….

- Frame issues – select subset
- Describe options/care process
- Engage practitioners
- √ Determine agreement
- √ Assess degree of agreement

Client Description – Client #5

- This is an older (>60 years) male or female client who already has clinical cardiovascular disease. They do not have diabetes. They have hypertension. They have already been put onto lipid lowering medications. They currently smoke. They are overweight or obese. They are sedentary. They have come for diet counselling and may or may not have changed their diet. They may or may not have had previous diet counselling in the past. Their fat intake is greater than 35%, fibre intake is low and fruit and vegetable consumption limited. They drink less than 2 cups of milk. They have significant mental health issues such as clinical depression or other long-term mental health issue that may make it more difficult to make dietary changes, as well as limited access to food because of low income.

Delphi 1 questionnaire

- Grouped under usual headings
  - Assessment
  - Initial counselling
  - Follow-up counselling
- Framed as client learning objectives
- Inclusive list – same for all types of clients
- Randomized order of statements
  - 10 versions

Should this goal / strategy be included in the care of the type of client being considered?

	Not Important / Not Appropriate			Somewhat			Essential / Highly Appropriate		
A. Initial Assessment Strategies *The practitioner will evaluate or assess client's…*									
1. 10-year risk factor for CVD	1	2	3	**4**	**5**	**X**	**7**	**8**	9
2. lab data	1	2	3	4	5	6	**7**	**X**	9
3. medical history and comorbidities	1	2	3	4	5	6	**7**	**X**	9
B. Likely Initial Counselling Goals or Objectives in Discussion with Client *On completion of the first counselling session, the client…*									
57. understands the role of the dietitian – what the dietitian can do for the client	1	2	3	4	5	**6**	**X**	**8**	9
83. decreases intake of foods high in sodium	1	2	**3**	**4**	**5**	**6**	**X**	**8**	9

Teleconference discussions

- Individual and group results returned
- 7 meetings with ~ 7 participants each
  - Differences in programs and approaches
  - Modified some statements and re-rated controversial statements
    → 2nd round Delphi

RESULTS – Participant Demographics
1st Delphi (n=43); 2nd Delphi (n=39)

- 93% female
- Region of practice:

  ON - 45%; BC - 23%;

  NS – 12%; AB – 9%

  NB – 5%; PQ – 5%; MB - 2%

- Practicing for 13.0 ± 9.5 yrs
  - 46% in a specialist dyslipidemia setting

Dyslipidemia Care Map for Overweight Clients

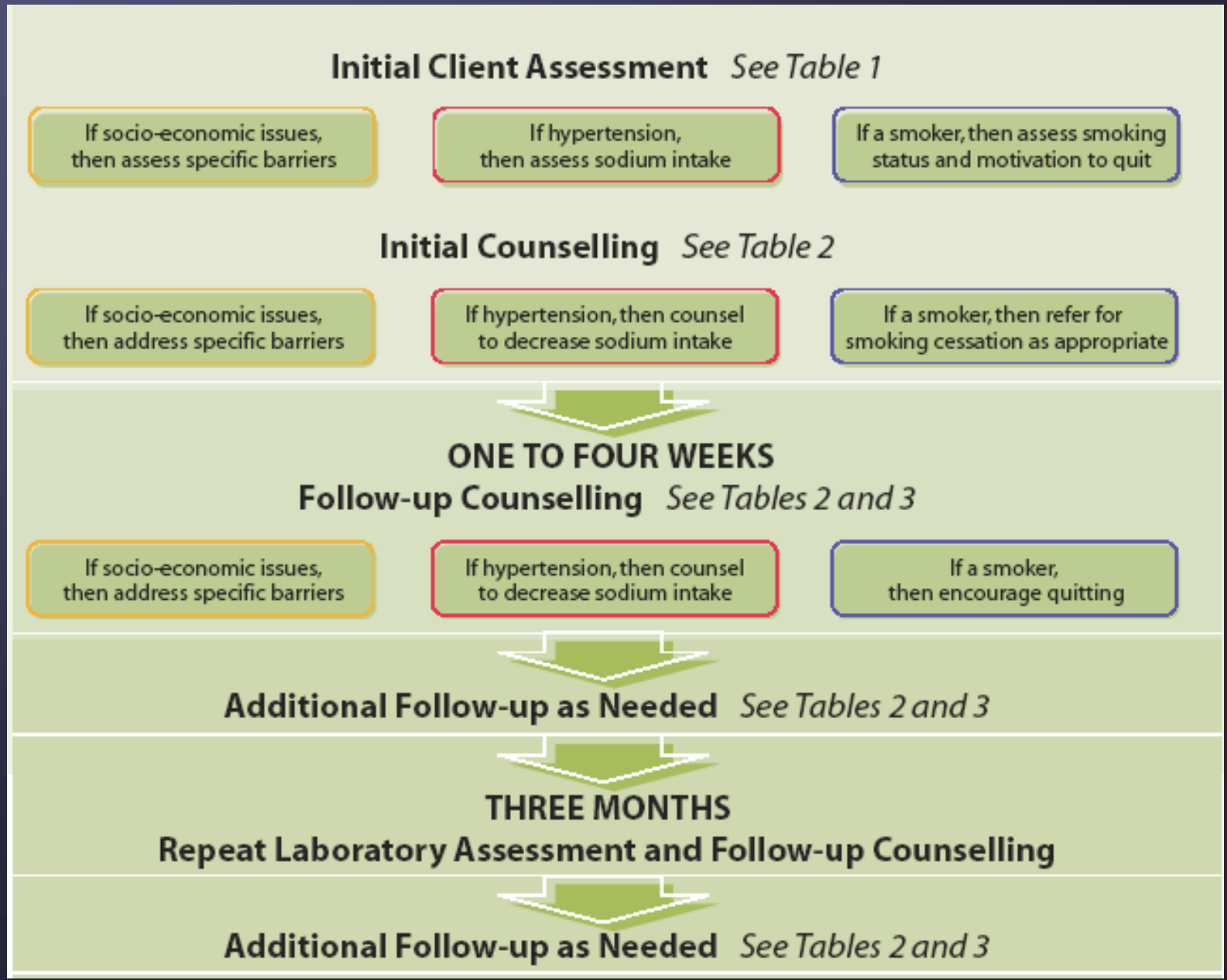

Table 4 Priority Learning Objectives in Group Classes where 1 or 2 classes are offered

	The client understands...
Background Knowledge	• laboratory data and can interpret his/her results • the need for smoking cessation, if appropriate • the role of the dietitian – what the dietitian can do for the client • the rationale for nutrition therapy in reducing risk factors • changes are lifestyle changes not only diet changes • the types of fats in food
Healthy Weight	• healthy weight and risks of overweight/obesity • health risks of high waist circumference/excess abdominal weight • benefits of modest weight loss of 5-10%, if appropriate • how to achieve energy balance
Food/ Nutrient Goals	• how to limit foods high in total fat (e.g. goal 20-35% of total kcal) • how to limit foods high in saturated and trans fat (e.g. goal <7-10% of total kcal) • how to include foods high in monounsaturated fat (e.g. goal ≥10% of total kcal) • how to include foods high in omega-3 fatty acids • how to limit foods high in cholesterol (e.g. goal <200 mg/day) • how to increase intake of vegetables and fruit (e.g. goal 5 or more svgs /day) • how to increase intake of foods high in fibre, including sources of soluble fibre (e.g. goal 20-35g/day) • how to choose lower fat meat sources • how to increase intake of low fat milk products (e.g. goal 2 to 4 svgs/day) or other sources of calcium/vitamin D • how to decrease intake of foods high in added sugar (e.g. sweets, sweetened beverages, desserts) • how to decrease intake of foods high in sodium • moderate alcohol intake • moderate caffeine intake
Eating Pattern	• a balanced diet, (e.g. based on *Canada's Food Guide to Healthy Eating*) • how to distribute food intake through the day into three or more eating occasions • how to include recommended snacks • how to follow specified meal/menu/recipe suggestions • how to modify recipes to meet nutrient goals • how to use low-fat cooking techniques • how to use the plate model (visual of foods on plate) to guide meals • appropriate portion size • how to select appropriately from a menu of food prepared away from home. (e.g. restaurants, fast food, take-out, order-in, cafeterias)
Supplements	• the appropriate use of vitamin/ mineral or other dietary supplements
Consumer Information	• how to accurately read food labels • how to find and evaluate nutrition information for credibility (e.g. cookbooks, web-based information)
Physical Activity	• how to increase physical activity (e.g. as per *Canada's Physical Activity Guide* recommendations)
Self-Monitoring	• self-monitoring of food intake and activity • self-monitoring of body weight, waist circumference, glucose levels, A1C, etc. • self-monitoring of fat or carbohydrate (e.g. grams, servings, portions, exchanges)

Clinical Nutrition Therapy for Overweight Clients with Dyslipidemia

Dietitian's Quick Reference Guide

(August 2005 version)

This care map summarizes recommended processes of dietetic practice for overweight clients with dyslipidemia, including those at risk for or who already have clinical cardiovascular disease, hypertension, and/or diabetes seen individually or in groups. The recommendations are based on the judgment of 39 dietitians, physicians and researchers from a range of practice settings across Canada who participated in a rigorous process to build consensus on highly appropriate and feasible dietetic practice in the Canadian health care system. Each client is unique and the care map is to be adapted to meet each client's needs.

Evidence Level

Consensus, using a modified Delphi appropriateness method. Reviewed by participants and Dietitians of Canada members.

Supporting Documents:

The care map is to be used with current guidelines for medical management of dyslipidemia. *Genest J, Frohlich J, Fodor G, McPherson R. Recommendations for the management of dyslipidemia and the prevention of cardiovascular disease: summary of the 2003 update. Can Med Assoc J 2003; 168:921-4 and online at: http://www.cmaj.ca/cgi/content/full/168/8/921/DC1*

How to use it:

Individual Counselling: The process and core assessment and counselling goals that are included in Tables 1 to 3 are common to most clients. These goals are high priority topics. Other possible goals and topics are appropriate sometimes in some clients.

Group Counselling: Priority learning objectives for group classes are given in Table 4.

We encourage ongoing discussion and refinement of this first care map.

Initial Client Assessment *See Table 1*

- If socio-economic issues, then assess specific barriers
- If hypertension, then assess sodium intake
- If a smoker, then assess smoking status and motivation to quit

Initial Counselling *See Table 2*

- If socio-economic issues, then address specific barriers
- If hypertension, then counsel to decrease sodium intake
- If a smoker, then refer for smoking cessation as appropriate

ONE TO FOUR WEEKS

Follow-up Counselling *See Tables 2 and 3*

- If socio-economic issues, then address specific barriers
- If hypertension, then counsel to decrease sodium intake
- If a smoker, then encourage quitting

Additional Follow-up as Needed *See Tables 2 and 3*

THREE MONTHS

Repeat Laboratory Assessment and Follow-up Counselling

Additional Follow-up as Needed *See Tables 2 and 3*

Examples of New Objectives Not Addressed in Previous Guides

- Initial Counselling
  - Involves spouse/significant other
  - Understands the role of the RD
  - Understands benefits of modest weight loss of 5-10%
  - Increases intake of low fat milk products
  - Distributes food intake through the day into three or more eating occasions
  - Uses the plate model
- Group classes

Additional Analyses

- Very few differences comparing experts vs generalists
- Few options rejected outright
  - No follow-up only one that stands out
- Many current counselling practices are only sometimes or somewhat appropriate for complex clients

Dissemination

- DC conference – May 05
- Webcast – Oct 05 – n=434
- Heart Headlines – *Becel* - Nov 05
- Three articles in preparation

Relevance to Foundation

- Health system uptake identified as one key issue → Leading edge study to define feasible and recommended practice
  - Rigorous and inclusive process
  - Ready to be used
    - Current practice
    - Effectiveness studies

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Questions?