

“An Ounce of Prevention”

A Primary Care Based Prevention Program

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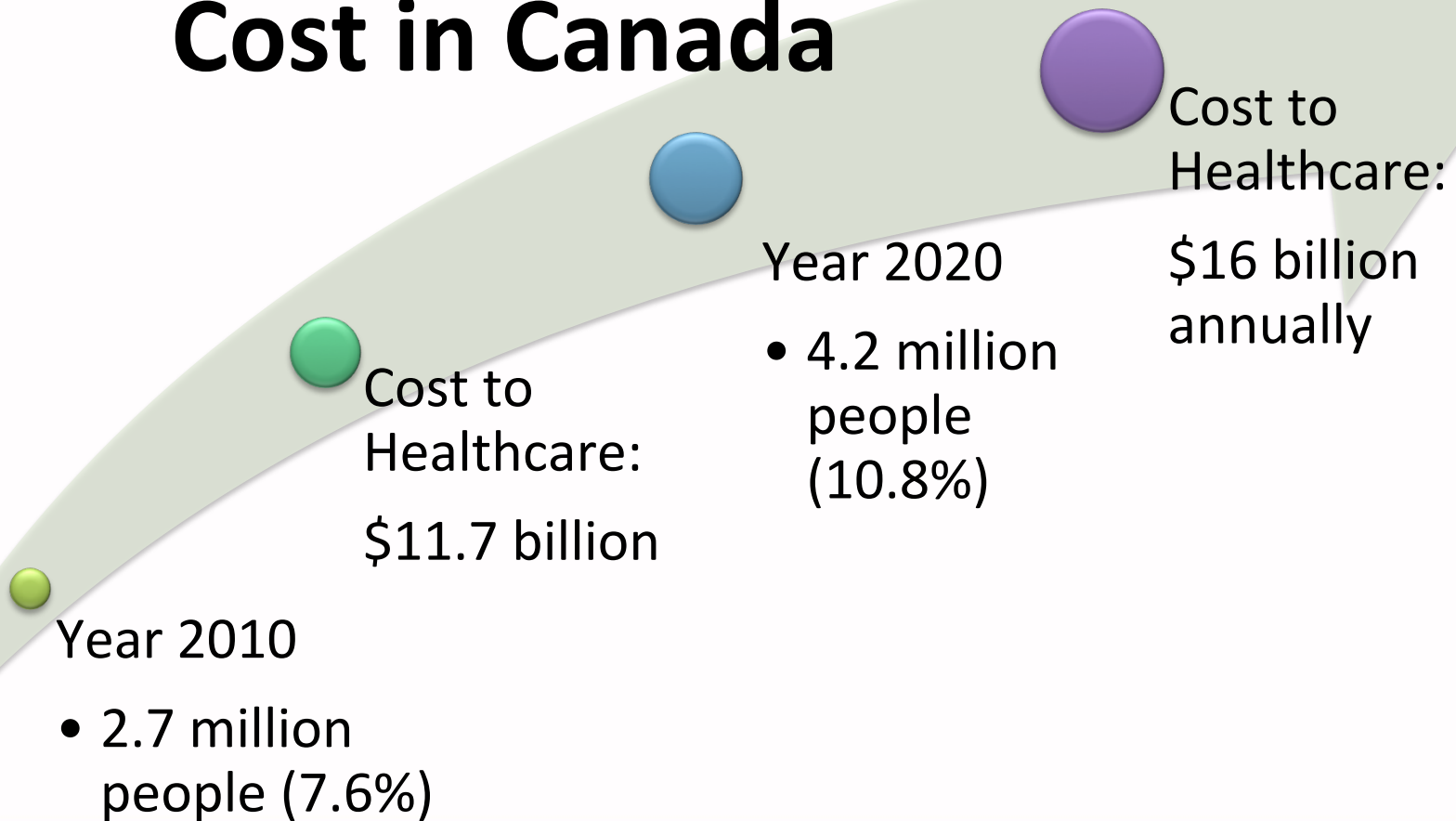
AFHTO
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Objectives of Presentation

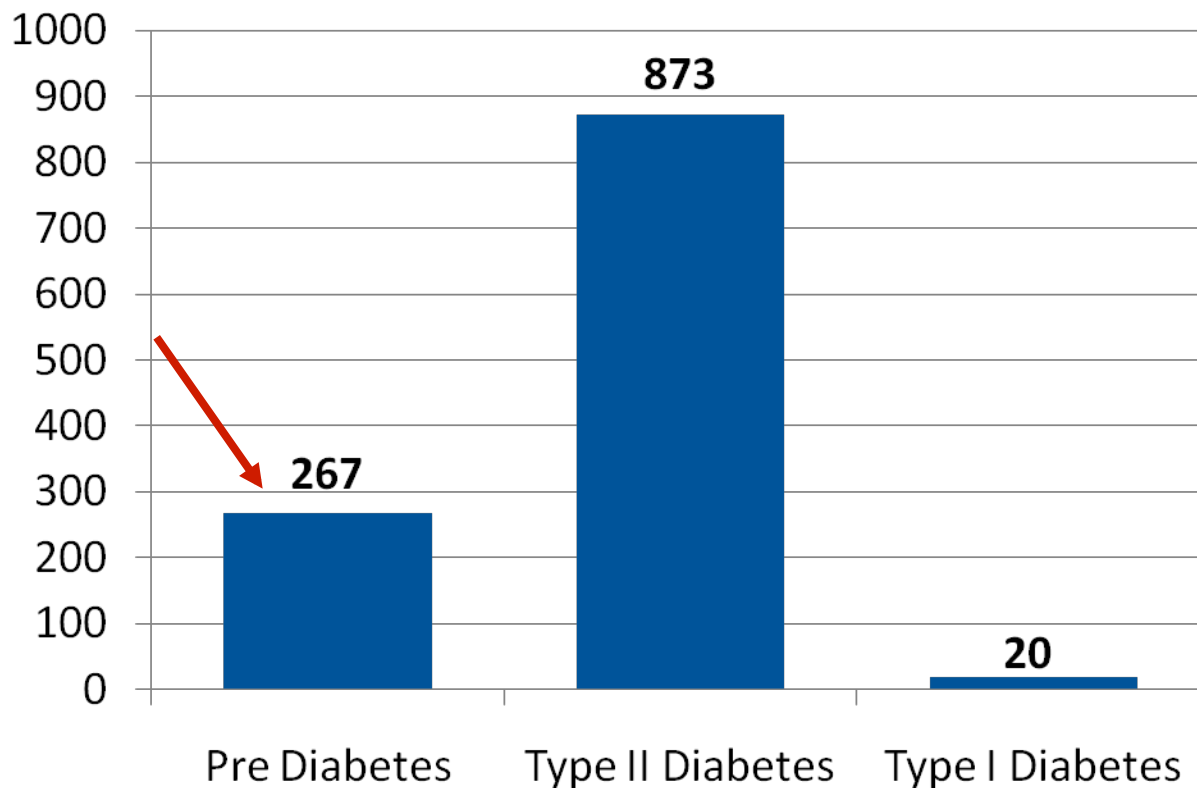
Key Messages:

- Address the increasing need for diabetes prevention strategies in those diagnosed with pre-diabetes
- Description of our diabetes prevention program
– *An Ounce of Prevention*
- Share lessons learned
- Provide ideas on next steps to implement a prevention program in your clinic.

Diabetes Prevalence and Cost in Canada



Diabetes and Pre Diabetes at The Ottawa Hospital Academic Family Health Team



- Total patients ~12,000
- 9.6% of patient population with pre-diabetes, type II or type I
- Pre diabetes patients account for 23% of total diabetes patient population

Research Evidence

Primary prevention:

- It is estimated that over 50% of type 2 diabetes could be prevented or delayed with healthier eating and increased physical activity (*Diabetes: Canada at a Tipping Point*)

Diabetes Prevention Studies

- **DPS (Finnish) and DPP (United States)** – both research studies showed the risk of diabetes was reduced by 58% in the intensive lifestyle intervention groups compared with a control

Diabetes Prevention Program (DPP)

- Involved 27 clinical centers from the United States
- Structured curriculum - 16 group lessons focused on lifestyle intervention
- Goal - slow or prevent the progression of Type 2 Diabetes
- Divided participants into three groups
- Diabetes incidence reduced by 58%, for individuals in the lifestyle intervention section

Diabetes Prevention Study (DPS)

- Finnish Diabetes Study 2003-2007 with 1.5 million participants
- Focused on lifestyle intervention - weight loss and physical activity
- Meet 4-8 times (weekly/bi-weekly)
- Individual or in groups
- Results indicated that diabetes prevention or delay was possible, but needed to be individualized, continuous and performed by skilled professionals

Applying Research Evidence into Action

- **Goal:** Our pilot project looked at feasibility of implementing a diabetes prevention program
 - **Current evidence:**
 - The Finnish Diabetes Prevention Study (DPS)
 - The Diabetes Prevention Program (DPP)
 - Living a Healthy Life with Chronic Conditions (CDSMP)
- **Created program that is based on the DPP study (16 wk lifestyle balance) modified to 4 weeks in group setting + 12 weeks self management through email/phone call and a 3 month follow-up group

Key Components

- Lifestyle Behaviour Change
- Based on Principles of Self-Management
- Group Based
- Integrated exercise component

Pre Diabetes Care Map

Patient referred to DM team with Pre Diabetes or IFG/IGT
or patient identified by chart audit to have pre diabetes or IFG/IGT



call patient to offer 4 week Pre Diabetes Program

4 week program (Ounce of Prev Program)

week 1 90 min. intro
* 30 min. walk

week 2 90 min, nutrition
** 30 min, resistance

week 3 90 min. exercise
30 min. flexibility

week 4 90 min. Wrap up/goals
30 min. exercise.



12 weeks follow up emails/phone

week 12 group follow up
* 90 min f/u discussion
30 min exercise



maintenance Groups - q 6 weeks
various topics - nutrition ,exercise, etc.

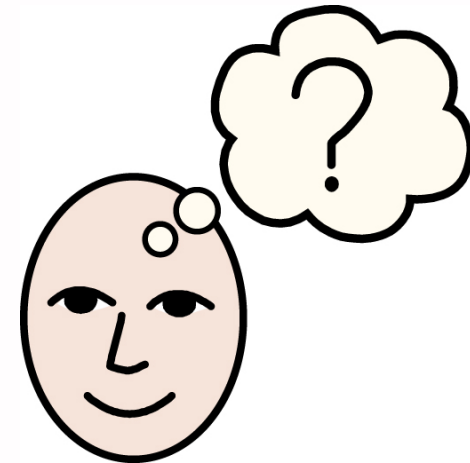
Legend
* BW, BP, Weight, Height, WC, goals
* PAR-Q, STC, Gen. Self Efficacy, Phys Act.
** discuss CV risk, goals

Outline of Program

Week	Overview	Activity
1	<p>“An Ounce of Prevention”</p> <ul style="list-style-type: none"> • What is this program about? • Principles of Self Management • What is pre-diabetes? • How can I prevent diabetes? • Risk factors – those you can’t change and those you can • Importance of lifestyle balance • Goal Setting • Problem Solving 	Walk
2	<p>“Healthy Eating with Pre- Diabetes”</p> <ul style="list-style-type: none"> • Review Food Guide and its recommendations • Compare your eating patterns to the Guide • Importance of healthy eating and lifestyle changes • Develop a balanced lifestyle (activity and eating plan) for the upcoming week. 	Resistance Training
3	<p>“Active Living!”</p> <ul style="list-style-type: none"> • Review the Lifestyle Balance activity goal. • Discuss why the activity goal is important. • Discuss current level of physical activity. • Be encouraged to participate in the Lifestyle Balance activity sessions. • Identify other activities equivalent to brisk walking that the participant enjoys. 	Stretching
4	<p>“Bringing it all together and keeping it going”</p> <ul style="list-style-type: none"> • Dealing with negative thoughts and ‘slips’ • Managing stress and social cues • Staying motivated! 	What’s in the community?

Questions to Think About

- How do you identify population?
- What systems and support do you already have in place?
- Communication strategy?
- Recruitment – who and how?



Practical Aspects

- Development
- Scheduling
- Staffing
- Space
- Recruitment
- Cost



Photo source: <http://www.getitorganized.org/>

How did we get people to come?

- **Recruitment** – patients from The Ottawa Hospital Academic Family Health Team and clients recruited from outreach events in the community
- **Criteria** – patients/clients with diagnosed pre-diabetes (IFG and/or IGT) or at risk of developing diabetes by using CANRISK

Results: Average Cost per Participant

	Average cost per class (\$) n = approx. 10
Material (information binders)	
photocopies	76.93
binders	40.83
Total	117.76
Wages	
<i>Session development</i> (20 hours/week x 24 weeks @ \$40.00 / hour) x 2 facilitators ¹	3490.90
<i>Running the session</i>	
Admin fees (photocopying, etc.)	10.45
Session facilitators (2 per class @ \$40/hour)	
Prep time (1 hour)	40
Class time (4 weeks = 16 hours)	800
3 month follow up (4 hours)	160
follow up via emails (12 weekly emails = 2 hours)	80
Total	4581.35
Total (Wages and Material)	4699.11
Cost per participant	470

¹ Per each session (10 sessions up to August 2012)

Results

Pilot group - June 2010

- **10 groups** completed “An Ounce of Prevention” program from June 2010 to Aug 2012
- Total of 74 participants enrolled
- 13 (17.6%) didn't attend any classes - of the 61 that attended, 47 (77%) completed at least 3 of the 4 classes
- Reasons for not attending: no show or sick
- 28 attended the 3 month follow-up group

The 11th diabetes prevention session has been completed

- with 12 participants enrolled
- and there was 100% attendance at all 4 classes



Patient Satisfaction

Class 1 and 2

	Program Participants (n = 43)
	Average Score (1-lowest, 5- highest)
Class 1	
Overall I found the first class informative	4.55
I would recommend this program to others based on the first class	4.53
I feel more informed about prediabetes and its impact on my health	4.14
I learned skills to help me in preventing diabetes	3.97
I feel motivated to start to work toward a healthier lifestyle	4.53
I feel confident in achieving the goals I have set for next week	4.28
Class 2	
Overall I found the second class informative	4.6
I feel more informed about the importance of balancing calories	4.55
I have the skills to plan in advance to eat healthy	4.17
I feel confident identifying cues that make me want to eat	3.77
I feel prepared to handle challenges that may prevent me from eating healthy	3.85
I feel confident in achieving the goals I have set for next week	3.95



Patient Satisfaction

Class 3 and 4

	Program Participants (n = 43)
	Average Score (1-lowest, 5- highest)
Class 3	
Overall I found the third class informative	4.65
The FITT approach to active living was helpful	4.52
I know alternative ways to be physical active that I enjoy	4.28
I feel prepared to handle barriers that may prevent me from being active	4.18
I feel motivated to get 30-60 minutes of physical activity each day	4.22
I feel confident in achieving the goals I have set for next week	4.32
Class 4	
Overall I found the last class informative	4.67
I feel I have the skills to deal with negative thoughts	4.33
I feel prepared to manage the stress in my life	4.33
I feel I have the skills to positively respond to social cues	4.31
I know some ways to keep myself motivated	4.50
I feel confident in achieving my SMART goals	4.17

Participants Experience - Quotes

Benefits of the group setting

- “need a group to get me going” [ID 924]
- “group support is very helpful” [ID 603]
- “good sharing with others” [ID 731]
- “Helpful to hear others examples and expression” [ID 628]
- “friendly, relaxed atmosphere” [ID 915]

Participants Experience - Quotes

Positive feedback about the overall content

- “interactive - not just a lecture” [ID 928]
- “Very conducive to learning and sharing of information” [ID 932]
- “How interesting to find out about the food guides” [ID 820]
- I liked “reading labels” [ID 818]
- “reading labels and foods to avoid” ID 624]

Participants Experience - Quotes

The integration of exercise was appreciated:

- “Like having the exercise component” [ID 803]
- “The exercise bit was interesting” [ID 810]
- “Learning easy and time efficient ways to exercise” [ID 708]
- “liked everything, especially the stretching section” [ID 701]
- “Showed me how badly I needed a stretching program” [ID 728]
- “It would be nice it more time for exercise” [ID924]
- “10 more minutes of exercise” [ID 927]
- “Would include the exercises time in the middle of 2 hour session” [ID 935]

Participants Experience - Quotes

Anything you would like to change about the program?

- “longer than 4 weeks if possible”
- “program should be 4 weeks or longer and then monthly for a year”
- “split the nutrition information into two sessions”
- “would like the exercise portion in the middle of the two hours”

Evaluation Tools (in progress)

- PAR-Q & YOU (Physical Activity Readiness Questionnaire)
- Personal Information Sheet
- Physical Assessment Survey
- Starting a Conversation Diet Assessment
- General Self-Efficacy Scale Survey
- Blood work including Fasting blood glucose and cholesterol panel
- Height, Weight, Waist Circumference and BP
- Evaluations at the end of each class
 - 6 questions scaled from 1-5
 - 3 open ended questions

Lessons Learned

- **To have a full class**
 - Over enroll
 - Community outreach (screening activities)
 - Education required amongst providers around recruitment criteria
- **Group dynamics**
 - Learning to be an effective group leader (Chronic Disease Self-Management Programs) practice!
- **Dealing with logistics of working with several health care providers**
 - Consider developing partnership

Lessons Continued

- Improve evaluation process
- Obtain funding for someone to evaluate surveys
- Clinical support of family physicians
- Space to run groups

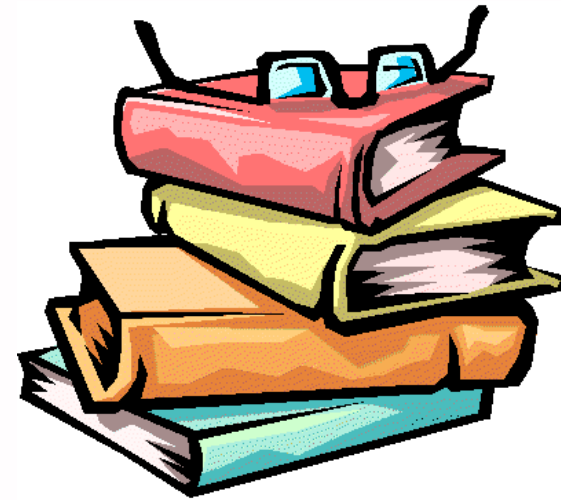


Photo source: <http://blog.atrinternational.com>

Moving Forward

Maintenance group

- Run every 6 weeks
- All “graduates” of 16 week program are invited via email/phone
- Various topics set by facilitator or group
- Exercise is incorporated into each class for 30 minutes
- Total 13 sessions from February 23, 2011 to August 22, 2012 with a total number of 56 participants, averaging 4 participants /class

Conclusions

- We were able to implement a 4 week lifestyle balance group program + 12 week self management email/phone follow up in a primary practice setting
- Patients had a positive experience with program – based on evaluations
- Maintenance group has been helpful to encourage participants to maintain lifestyle changes
- More research needs to be done to see if a community based program can prevent or delay diabetes to slow down this epidemic

References

- The Diabetes Prevention Program Research Group. *Diabetes Care* 1999;22:623-634.
- The Finnish Diabetes Prevention Study (DPS). *Diabetes Care* 2003;26:3230-3236.
- Diabetes: Canada at the tipping point *Charting a New Path. The Canadian Diabetes Association, in partnership with Diabète Québec.*
- Evidence Summary: Pre Diabetes. Prepared by the CIHR-funded Knowledge to Action research group.

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Thank You

- **Questions?**

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Photo Source: <http://simplyfreshottawa.com>