Family & Community Medicine
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Northwest Territories Health and Social Services

MEMORIAL UNIVERSITY

Finding a BETTER Way to Chronic Disease Prevention and Screening

The BETTER 2 Program

Kris Aubrey-Bassler

AFHTO Conference – October 16, 2014

DALHOUSIE UNIVERSITY
Inspiring Minds

THE BETTER PROJECT
Building on Existing Tools to Improve Chronic Disease Prevention & Screening in Primary Care

CLASP
COALITIONS LINKING ACTION & SCIENCE FOR PREVENTION

Northern Ontario School of Medicine

Presenter Disclosure

Kris Aubrey-Bassler

Discipline of Family Medicine, Memorial University of Newfoundland

Relationships with commercial interests:

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The views expressed herein represent the views of the BETTER 2 Coalition and do not necessarily represent the views of the project funders.

Disclosure of Commercial Support

This program has not received any other financial or in-kind support

<u>Potential for conflict of interest:</u>

- None of the speakers have received payment of funding nor derived benefits from this program

Mitigating Potential Bias

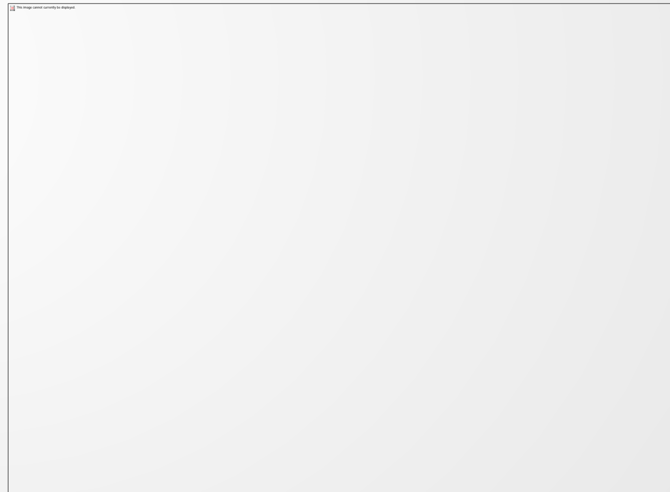
There have been no biases identified to mitigate

Learning Objectives

- Develop an understanding of the BETTER approach to chronic disease prevention and screening and how it can be adapted.
- Decide how to approach and improve prevention and screening in your practice, including how you will target at-risk patients.

Why Chronic Disease Prevention and Screening?

- **We are facing a Tsunami of Chronic Disease**
  - 3 out of 5 Canadians have a chronic disease[1]
  - 50% of cancers arise from modifiable lifestyle factors[2]
  - People do not know that they can prevent chronic disease



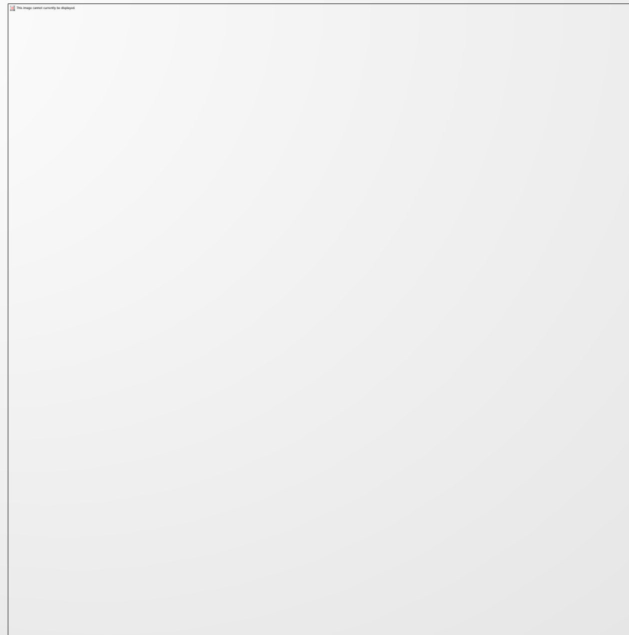
1. Public Health Agency of Canada. Fact Sheet: Government of Canada chronic disease initiatives [Internet]. Ottawa (ON); [modified 2011 Sep 19; cited 2013 Jun 24]
2. Global Toronto. New campaign aims to cut the risk of cancer in Alberta by half. 2014 May 9

Context

- Family Practice is the ideal setting for most CDPS maneuvers offered by the health care system
- Evidence-based tools and strategies are available to improve CDPS, but inconsistently applied. For example:
  - EMRs for rostering, audit and feedback, patient invitations, use of incentive fee codes
  - Evidence-based guidelines and tools for each maneuver
  - Outreach facilitation
  - Practice based quality improvement strategies
- Provincial governments have introduced a number of strategies to improve primary care (Multidisciplinary team practices, fee codes, etc.)

Context

- Barriers to prevention and screening in family practice:
  - To fully satisfy the US preventive task force recommendations it would take an additional 7.4 hours a day.
  - There is a plethora of guidelines with many lacking rigor, including conflicting guidelines that confuse providers.



BETTER History

BETTER 2009-12

- CPAC
- HS Foundation
- RCT of BETTER vs. Usual Care
- Factorial Design
  - Prevention Practitioner
  - Prevention Facilitator
  - Both
  - Usual Care (Control)

BETTER 2 2012-14

- CPAC CLASP Renewal
- Rural, Remote
- Vulnerable
- Dissemination and Implementation

Why BETTER 2?

- Using an RCT design, the original BETTER project demonstrated a significant impact on CDPS.
- Eight urban/suburban practices in Alberta and Ontario participated in the original BETTER project
- Practices thought they were doing well in CDPS (the BETTER project assessed 28 CDPS maneuvers)

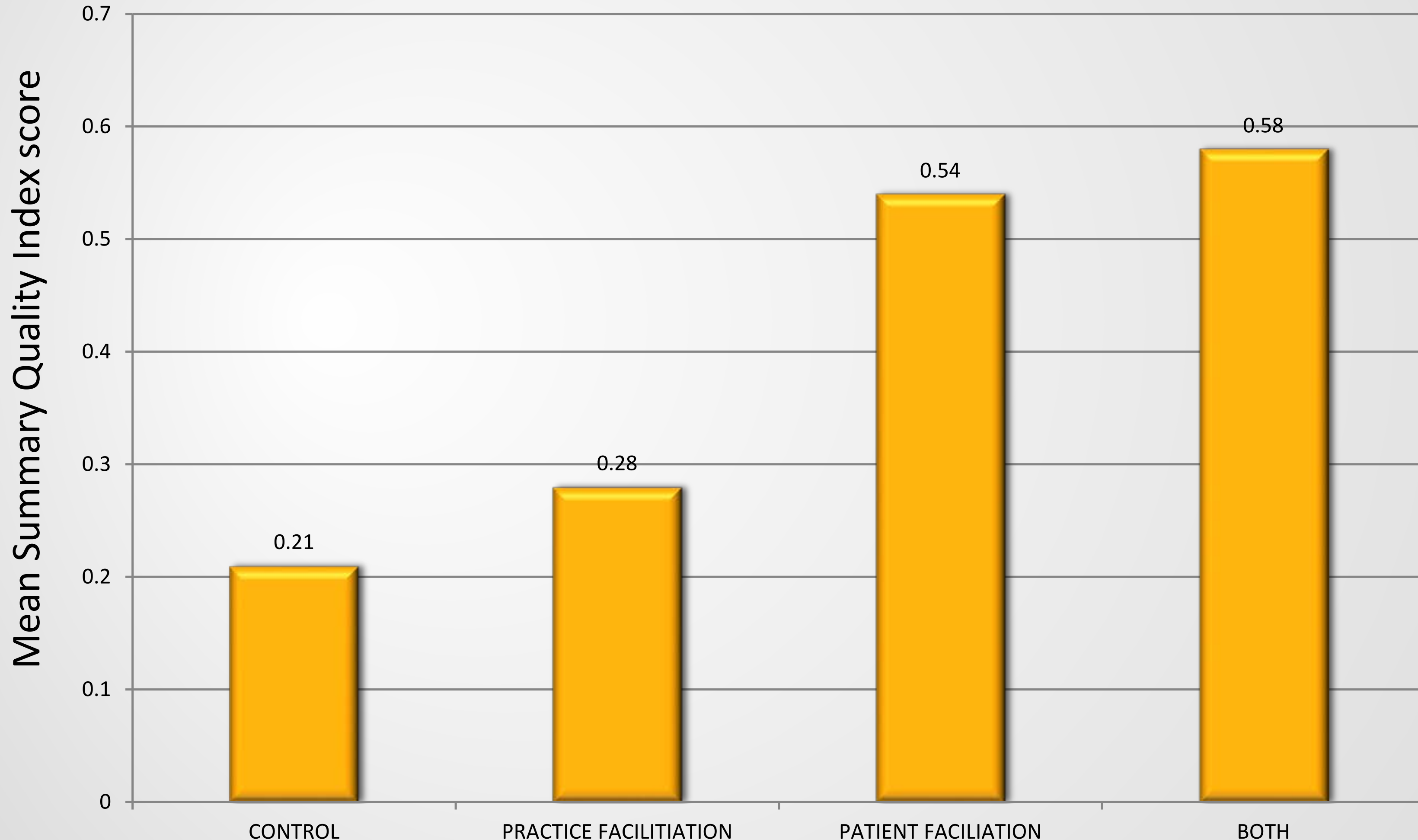
Why BETTER 2?

- Patients were deficient in an average of 8.9 (SD 3.2) CDPS maneuvers

- The substantial gap between evidence and application is well known and documented yet we still believe we are doing well

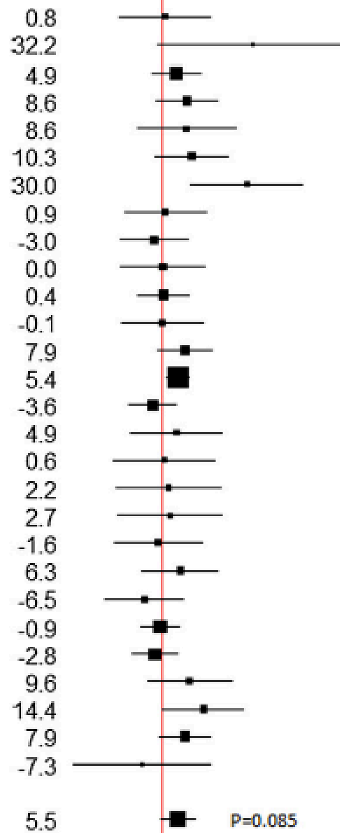
BETTER Project Results

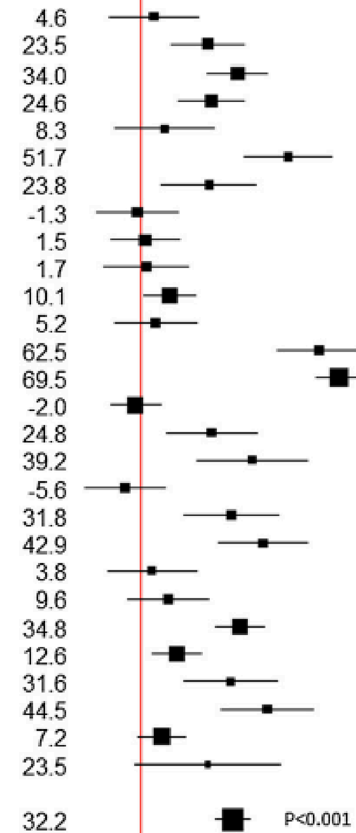
Grunfeld E, Manca D, Moineddin R, Thorpe KE, Hoch JS, Campbell-Scherer D, Meaney C, Rogers J, Beca J, Krueger P *et al*: **Improving chronic disease prevention and screening in primary care: results of the BETTER pragmatic cluster randomized controlled trial**. *BMC family practice* 2013, **14**(1):175.



The BETTER Trial Results

Prevention and Screening Actions	Percent Improvement Practice Facilitator	Percent Improvement Prevention Practitioner
1. Fasting blood sugar screening (N=255)	0.8	4.6
2. Fasting blood sugar monitoring (N=28)	32.2	23.5
3. Blood pressure screening (N=442)	4.9	34.0
4. Blood pressure monitoring (N=192)	8.6	24.6
5. Hypertension treatment (N=92)	8.6	8.3
6. Framingham calculated (N=422)	10.3	51.7
7. Framingham improved (N=80)	30.0	23.8
8. LDL improved (N=81)	0.9	-1.3
9. Cholesterol treatment (N=82)	-3.0	1.5
10. Breast cancer screening (N=198)	0.0	1.7
11. Colorectal cancer screening (N=226)	0.4	10.1
12. Cervical cancer screening (N=166)	-0.1	5.2
13. BMI screening (N=164)	7.9	62.5
14. Waist circumference measured (N=714)	5.4	69.5
15. Weight control (N=444)	-3.6	-2.0
16. Weight control referral (N=446)	4.9	24.8
17. Smoking screening (N=164)	0.6	39.2
18. Smoking cessation (N=98)	2.2	-5.6
19. Smoking cessation referral (N=98)	2.7	31.8
20. Alcohol screening (N=229)	-1.6	42.9
21. Alcohol control (N=151)	6.3	3.8
22. Alcohol cessation referral (N=151)	-6.5	9.6
23. Physical activity screening (N=686)	-0.9	34.8
24. Physical activity >90 minutes/week (N=390)	-2.8	12.6
25. Physical activity program referral (N=390)	9.6	31.6
26. Nutrition screening (N=459)	14.4	44.5
27. Healthy diet score improved (N=58)	7.9	7.2
28. Nutrition counseling referral (N=58)	-7.3	23.5
Overall (N=777)	5.5	32.2





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The BETTER framework

- The BETTER Project patient level intervention impacts CDPS by:

1. A newly developed role, the prevention practitioner (PP)
2. A unique combination of internal and external practice facilitation

- Key components identified include:

1. Approaching CDPS in a comprehensive manner,
2. An individualized and personalized approach at multiple levels,
3. Integrated continuity of the patient and the practice in CDPS,
4. Adaptable

Important Features

1. Develops a chronic disease prevention and screening resource for the practice
2. Proactive targeting of patients at risk for Chronic Disease
3. Dedicated patient appointments for a prevention visit
4. A Tailored Patient Prevention Prescription that
   - Informs patient of their present status
   - Identifies actionable goals with a motivational component

The Prevention Practitioner (PP) Role

- A health care provider on the team trained in CDPS
- Provided with the BETTER Toolkit
- Review each patient's eligibility for CDPS maneuvers
- Meet with patients – prevention visit
  - Baseline visit – 30-60 minutes, in-person; assess patient risk and set CDPS goals
  - Follow-up visit – 15 minutes, in-person or via telephone; review patient's progress on previously established CDPS goals
- Through shared decision-making, developed an individualized prescription for each patient

The Prevention Practitioner (PP) Role

Participants

- Identify a target population (e.g 40-65 yo)
- Invite to attend a visit with the Prevention Practitioner

Preliminary Assessment

- Participants complete a health survey before the visit
- Participants' surveys and medical histories are reviewed and eligilbe CDPS manuevers are identified

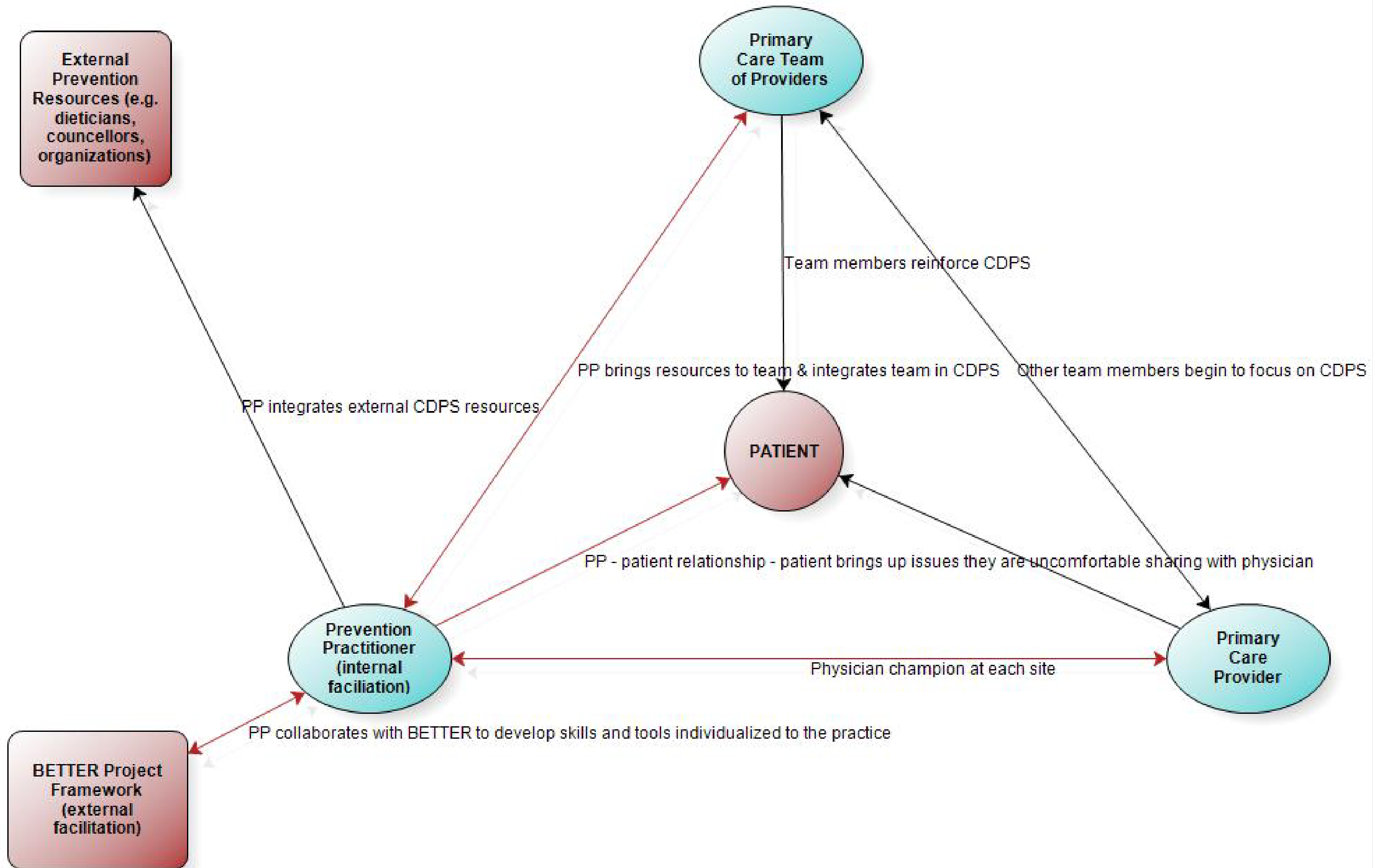
Prevention Practitioner Visit

- Through shared decision making and motivational interveiwing a personalized prevention prescription tailored to the patient is developed and the patient is provided with a copy
- A follow-up visit time frame is identified
- The participant may be linked to community/local resources (e.g. to help with smoking cessation)

Follow-up

- Reasses participant on follow-up
- Participant completes a health survey at 6 and 12 months after the initial visit

Prevention Practitioner (PP) Role



PATIENT

COST

Initially - Negative

- More time spent/patient

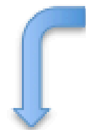
Positive

- Avoids unnecessary potentially harmful CDPS

BETTER APPROACH to CDPS

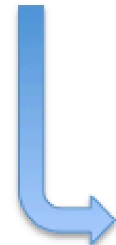
1
Comprehensive, Proactive

- Includes multiple evidence-based CDPS maneuvers
- Selects at risk patients for a CDPS visit



2
Individualized and Personalized CDPS

- Identifies eligible CDPS tailored to the patient

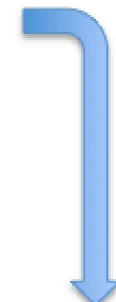


3
Integrated Continuity

- Patient referred to appropriate resource
- Internal and/or external to the practice setting
- Other clinicians in the practice made aware of patients' CDPS goals

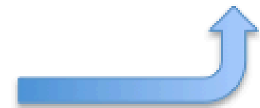
OTHER APPROACH to CDPS

1. Disease or condition focused
2. Not individualized
3. May not be integrated with patients' primary care provider



CDPS Focused Resources
(e.g. colon cancer screening, diabetes workshop, etc.)

- Specific tests
- Workshops focused on specific condition



COST

Initially - Positive

- Less time spent/patient

Negative

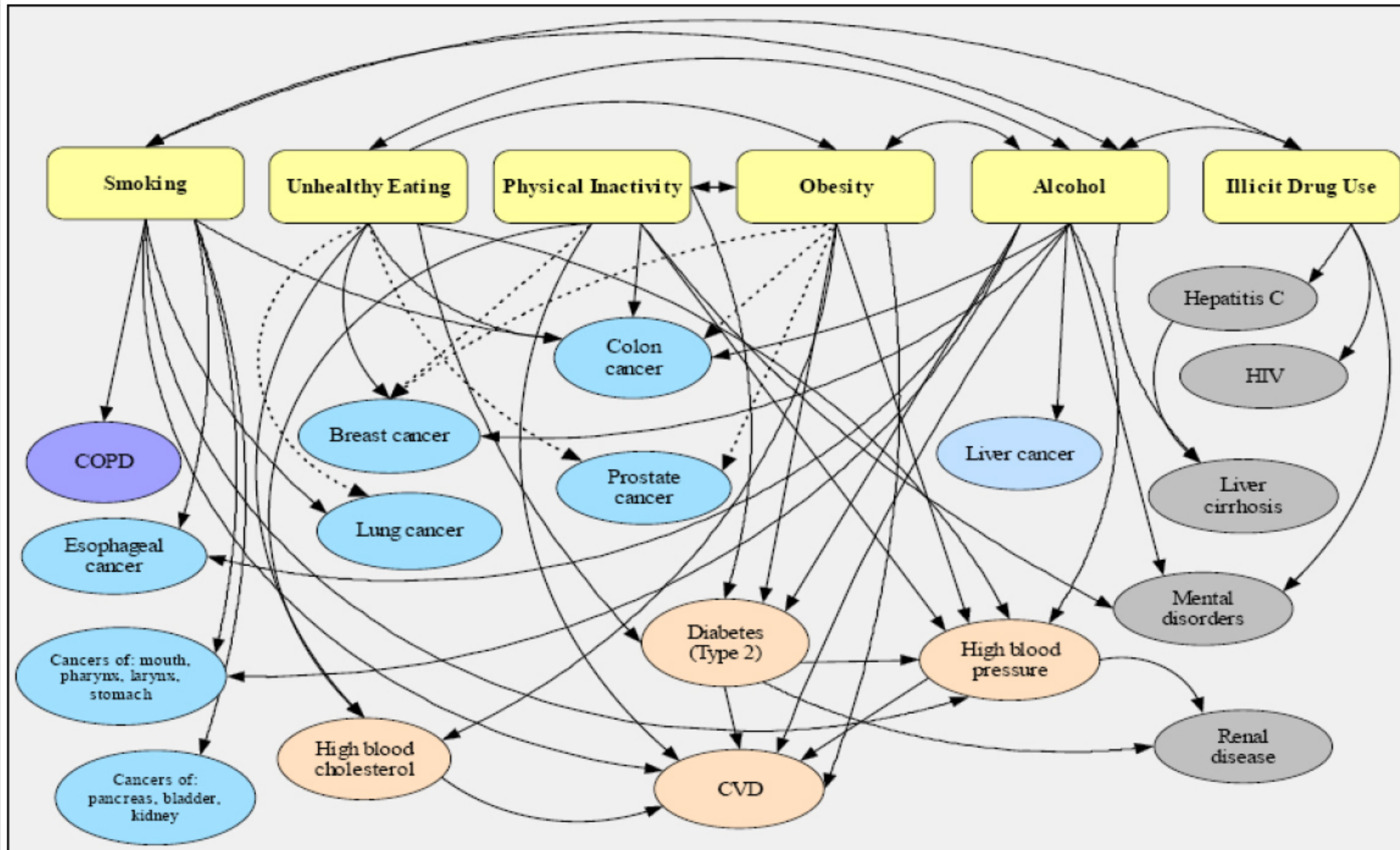
- If not individualized inappropriate tests may be ordered (e.g. colon cancer screen in low risk groups)

Clinical Working Group

- **BETTER trial**
  - Literature review – high quality clinical practice guidelines
  - Maneuvers with good or strong evidence for primary prevention in the 40-65 year old
  - Cardiovascular disease:
    - Lipid profile, blood pressure, Framingham Risk Chart, body mass index, and waist circumference
  - Diabetes:
    - Blood sugar
  - Cancer:
    - Breast, cervical, lung, and colorectal
  - Common lifestyle risk factors for chronic diseases (cardiovascular, diabetes and cancer):
    - Physical activity, alcohol, diet/nutrition, smoking cessation

Spaghetti Diagram

BETTER Developed Tools to Access & Address the Modifiable Risk Factors



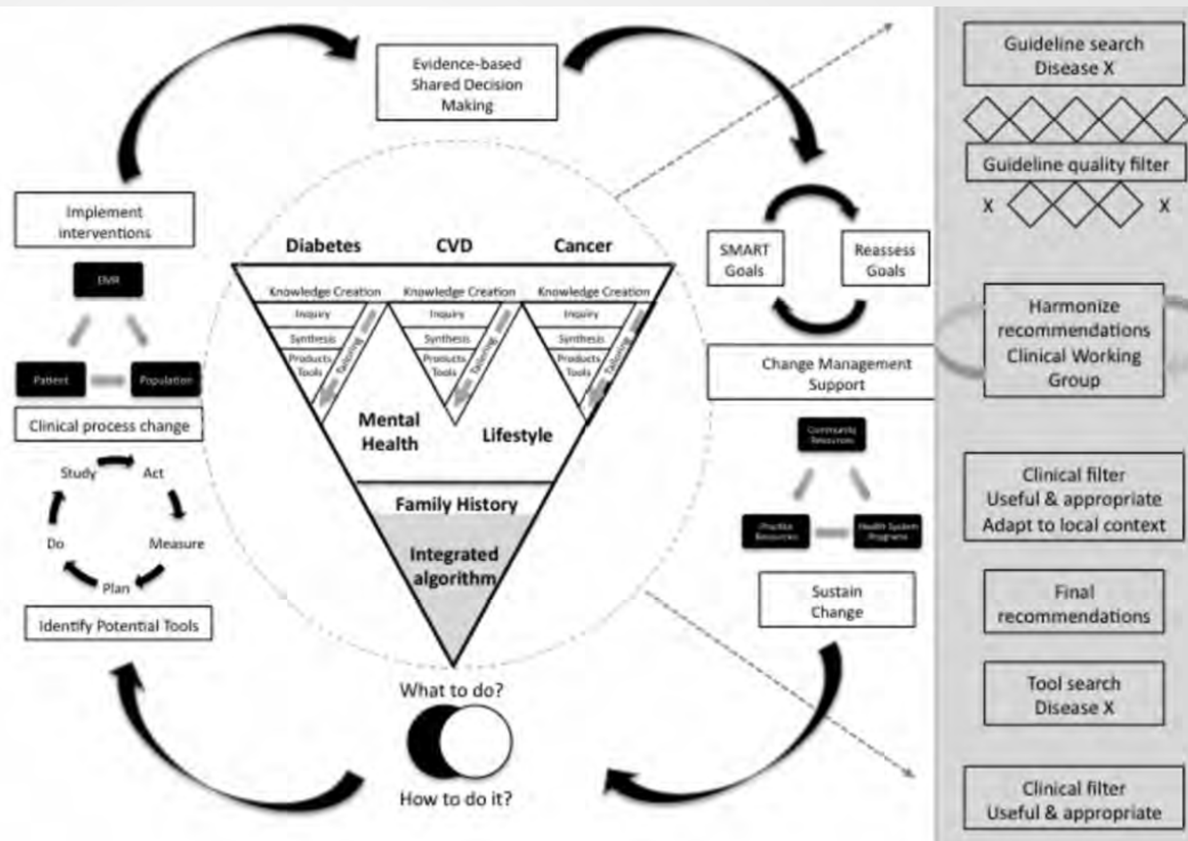
Haydon E, Roerecke M, Giesbrecht N, Rehm J, Kobus-Matthews M. (2006, March).
Determinants, risk factors and prevention priorities: Summary of full report.
Prepared for the Ontario Chronic Disease Prevention Alliance & the Ontario Public Health Association.
Available from: http://www.ocdpa.on.ca/docs/CDP-SummaryReport-Mar06.pdf

Clinical Working Group Guideline Review

- BETTER 2 Update
  - Targeted search of key resources was conducted to identify new or changed recommendations:
    - Date of publication after 2009, or
    - Those that addressed a gap or special population not considered in the original search, and
    - New strongly recommended guidelines

Guideline Harmonization through Integrated Knowledge Translation

Clinicians, Researchers & Policy Working Together



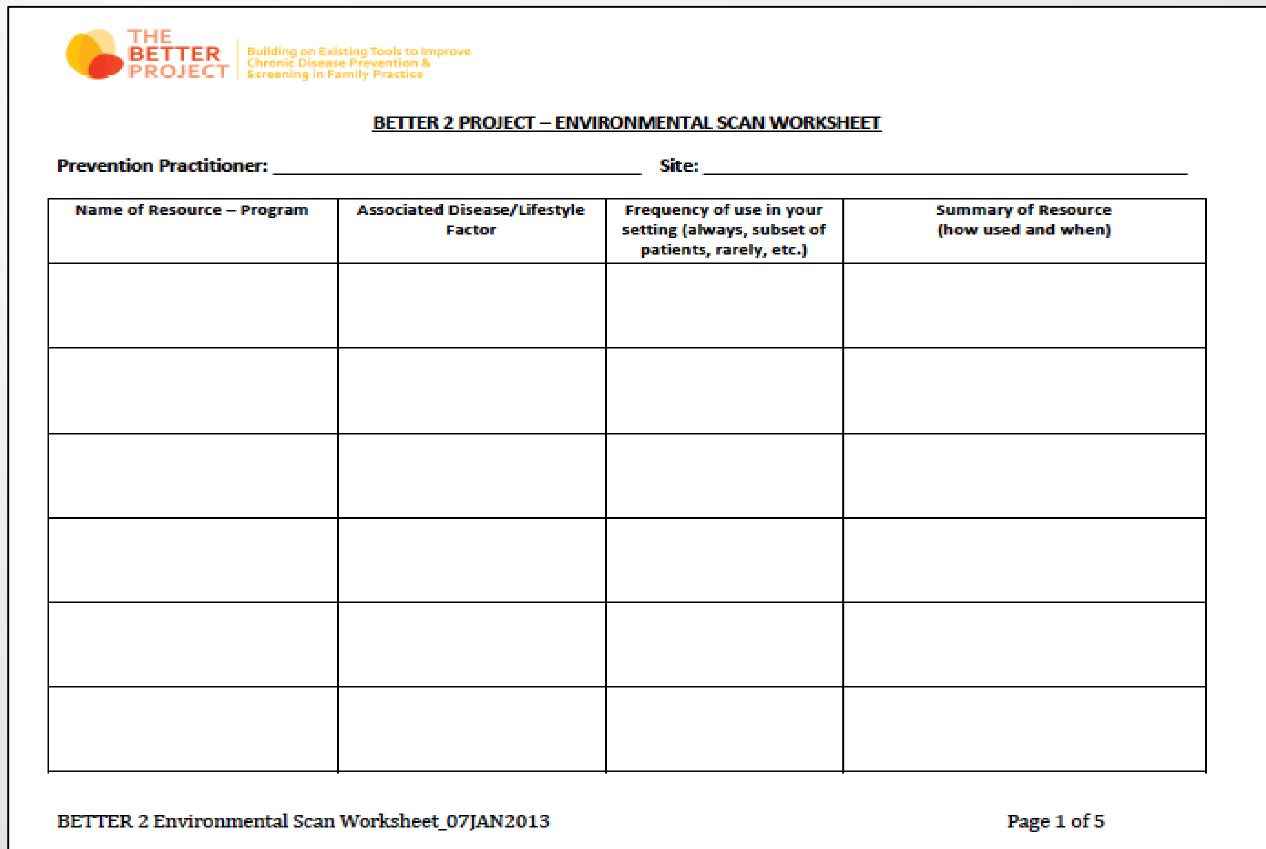
Campbell-Scherer D, Rogers J, Manca D, Lang-Robertson K, Bell S, Salvalaggio G, Greiver M, Korownyk C, Klein D, Carroll JC *et al*: **Guideline harmonization and implementation plan for the BETTER trial: Building on Existing Tools to Improve Chronic Disease Prevention and Screening in Family Practice**. *CMAJ Open* 2014, **2**(1):E1-E10.

BETTER Program
Summary of NEW CWG Recommendations

- Colorectal Cancer – FIT test
- Diabetes – add HbA1c
- Risk Calculators – UKPDS, FINDRISK
- Waist Circumference – ?useful with BMI < 24.9 in higher risk patients
- Alcohol – Audit in the patient survey; present safe guidelines are not in line with evidence of increased risk of breast cancer > 1 drink/day
- Physical Activity - ≥ 150 min/week (was 90 in BETTER trial) and includes the general practice physical activity questionnaire (GPPAQ) also assesses sedentary risks
- Nutrition – Patient Survey – Starting the Conversation Tool

CWG & Clinician Engagement

- Clinicians (PPs) provided input on recommendations & conducted environmental scans of local settings to identify resources and tools to use within the scope of BETTER 2


THE BETTER PROJECT | Building on Existing Tools to Improve Chronic Disease Prevention & Screening in Family Practice

BETTER 2 PROJECT – ENVIRONMENTAL SCAN WORKSHEET

Prevention Practitioner: ______________________ **Site:** ______________________

Name of Resource – Program	Associated Disease/Lifestyle Factor	Frequency of use in your setting (always, subset of patients, rarely, etc.)	Summary of Resource (how used and when)

BETTER 2 Environmental Scan Worksheet_07JAN2013 Page 1 of 5

The BETTER 2 Tools

- TOOLS Specific to BETTER 2
  - The BETTER 2 Algorithm
  - The BETTER 2 Health Survey
  - The BETTER 2 Prevention Visit Form
  - BUBBLE Diagram
  - Prevention Prescription

- TOOLS identified for use in BETTER 2
  - Special Topic Tools (Alcohol, Diet, Exercise)
  - Cardiac Risk Factor Tools
  - Family History Tools
  - Jurisdictional Tools

Alcohol Screening Tools

- College of Family Physicians of Canada – "Alcohol Screening, Brief Intervention and Referral: A Clinical Guide"
- A simple 3-step overview
  1. Screening and assessment
  2. Brief Intervention and Referral
  3. Follow-up and Support

- **CAVEAT** – drinking guidelines for at-risk drinkers focus on dependency/addiction risk.
- BETTER focus is on reduction of chronic disease risk:
  - **Men** - ≥ 14 drinks per week or > 2 drinks per day
  - **Women** - ≥ 7 drinks per week or > 1 drink per day

Tools identified for use in BETTER 2

DIET - starting the Conversation Questionnaire

Over the past few months:

	Question			
1.	How many times a week did you eat fast food meals or snacks?	Less than 1 time ☐ 0	1–3 times ☐ 1	4 or more times ☐ 2
2.	How many servings of fruit did you eat each day?	5 or more ☐ 0	3–4 ☐ 1	2 or less ☐ 2
3.	How many servings of vegetables did you eat each day?	5 or more ☐ 0	3–4 ☐ 1	2 or less ☐ 2
4.	How many regular sodas or glasses of sweet tea did you drink each day?	Less than 1 ☐ 0	1–2 ☐ 1	3 or more ☐ 2
5.	How many times a week did you eat beans (like pinto or black beans), chicken, or fish?	3 or more times ☐ 0	1–2 times ☐ 1	Less than 1 time ☐ 2
6.	How many times a week did you eat regular snack chips or crackers (not low-fat)?	1 time or less ☐ 0	2–3 times ☐ 1	4 or more times ☐ 2
7.	How many times a week did you eat desserts and other sweets (not the low-fat kind)?	1 time or less ☐ 0	2–3 times ☐ 1	4 or more times ☐ 2
8.	How much margarine, butter, or meat fat do you use to season vegetables or put on potatoes, bread, or corn?	Very little ☐ 0	Some ☐ 1	A lot ☐ 2

SUMMARY SCORE (sum of all items):

Tools identified for use in BETTER 2
Physical Activity (Question & GPPAQ)

- Assesses adult physical activity levels
  - All patients doing < 150 mins of physical activity per week (obtained on Health Survey) are eligible to be offered a brief intervention

- The general practice physical activity questionnaire (GPPAQ) on the Health survey categorizes patients into 4 levels of activity correlated with CVD risk
  - Active
  - Moderately Active
  - Moderately Inactive
  - Inactive

  - Calculation for score can be done manually OR an Excel calculator can be used (enter patient’s answers to receive score)
  - All patients who receive a score less than “active” are eligible to be offered a brief intervention

Updated BETTER Tools

Patient Initials: ___|___|___

Date completed: ______/______/______
(month) (day) (year)

BETTER

Health Survey

First Visit

Thank you for completing the BETTER Health Survey!

Your answers will help

During the visit, you an
and the screening tests
and create a plan that

Later, your healthcare
plan, if needed, and se

INSTRUCTIONS: Please

For each of the questio
as needed.

Your answers will help

You are free to refuse

If you wish to make a

Please complete y

THE BETTER PROJECT

PREVENTION VISIT FORM

Page 1 of 5

PATIENT ID: ___ ___ ___ ___ ___ ___ PATIENT INITIALS: ___ ___ ___

Record the most recent details in each section as recorded on the patient's chart/record or Health Survey that occurred:

- **Between the date of the previous Prevention Visit (date 1) and the date of the current Prevention Visit (date 2) OR**
- **If this is the patient's first Prevention Visit (date 2), record details that occurred up to 2 years prior to the Prevention Visit date (date 1), unless otherwise specified by a question.**
- **Complete Sections A1 and B-J prior to the visit and Sections A2, K and L during the visit.**

Today's DATE: __|__/__|__|__/__|__|__|__ (dd mmm yyyy) **Type of Visit:** ☐ In-person ☐ Telephone ☐ Video

DATE RANGE

DATE 1: __|__/__|__|__/__|__|__|__ (dd mmm yyyy) *TO* DATE 2: __|__/__|__|__/__|__|__|__ (dd mmm yyyy)

SECTION A1: General Patient Information (As per c

	Not Recorded	Details record
1. Gender:	___	___Male
2. Date of Birth:	___	__|__/__|__ dd mmm
3. Ethnicity	___	
4. Height:	___	___.__cm OR
5. Weight:	___	___.__lbs OR
6. BMI:	___	___.__kg/m²
7. Waist Circumference:	___	___.__cm OR
8. Blood Pressure:	___	a. ___/___ systolic / diastolic
	___	b. ___/___ systolic / diastolic
	___	c. ___/___ systolic / diastolic

SECTION A2: General Patient Information (As per P

	Not Measured	Measu
1. Height:	___	___.__cm OR
2. Weight:	___	___.__lbs OR
3. BMI:	___	___.__kg/m
4. Waist Circumference:	___	___.__cm OR
5. Blood Pressure:	___	___/___ systolic / diastolic

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Prevention Prescription

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Date: ____/____/____
(month) (day) (year)

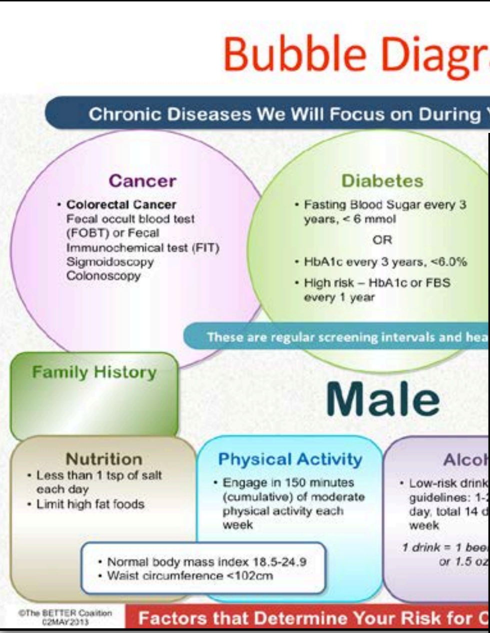
Your Initials: ____/____/____

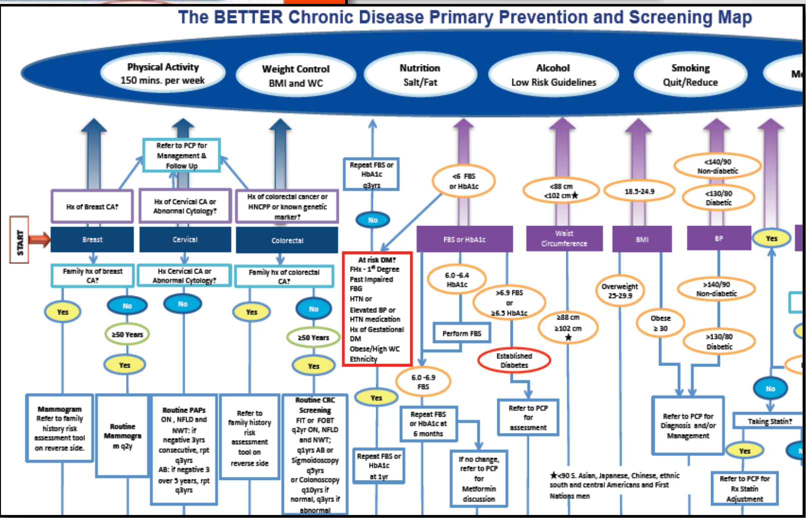
Patient Identifier: ☐☐☐☐☐☐☐

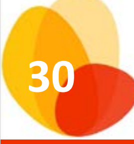
Your Health Care Team and You Working Together:
THE PREVENTION PRESCRIPTION

At your visit, we worked together to identify a number of important actions you can take to help prevent chronic disease. **This tool can be used to increase your understanding of the recommended guidelines for regular screening around some of the following potential lifestyle concerns and chronic diseases. Together, we can take steps to support and improve your health and well-being!**

Screening For:	Your Status/Results	When to Re-Check	Referral's/Actions
Cardiovascular Disease			
BMI			
WC			
Blood pressure			
Cholesterol			
Diabetes			
FBS/HbA1c			
Cancer Screening			
FOBT/FIT			
Sigmoidoscopy			
Colonoscopy			
Pap test			
Mammogram			
Lifestyle Concerns			







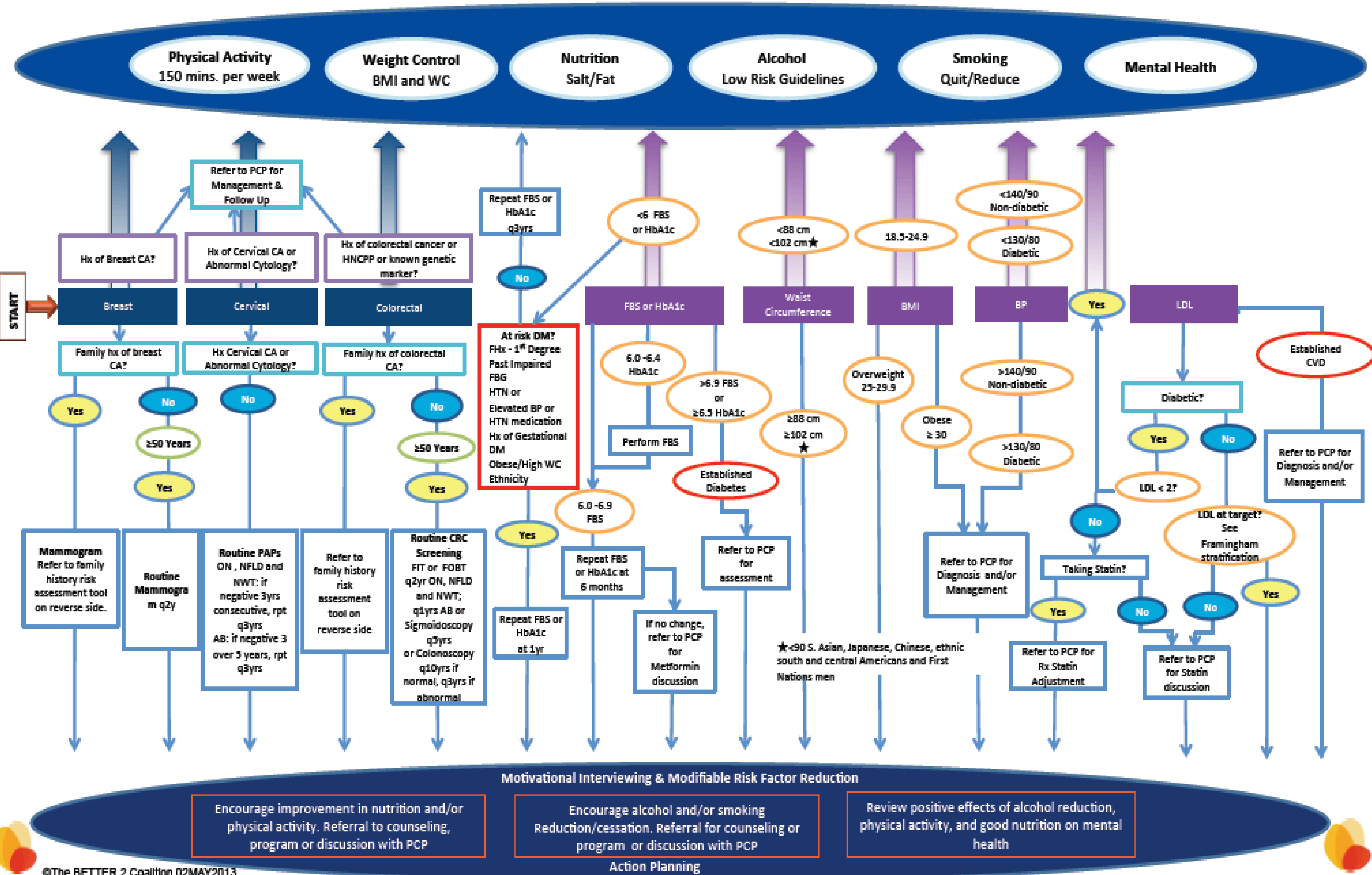
BETTER 2 Health Survey

- Obtained before the prevention visit
  - Helps determine what CDPS maneuvers the patient is eligible to receive
  - May be obtained orally to facilitate rapport with patients
- Specific information obtained on (*including readiness to change):
  - Colorectal screening
  - Cervical screening
  - Breast cancer screening
  - Medications
  - Smoking*
  - Exercise quantified & tool*
  - Diet habits – tool “Starting the Conversation”*
  - Alcohol – quantified & 3-itemAudit*
  - General health & two question (PHQ 2)
  - Family history
  - General questions – SES & food security

BETTER 2 Prevention Visit Form

- Before the visit
  - Pulls information from the survey and patients' chart to identify what CDPS maneuvers patients are eligible to receive
- At the time of the visit
  - Capture physical findings (BMI, waist circumference, BP)
  - In conjunction with Bubble diagram and prevention prescription –share information on CDPS with patient (what they are due to receive, lifestyle risks to address, etc)
  - Capture information on what patients found helpful
  - Capture information on time – preparation & visit time

Algorithm



Bubble Diagram

Chronic Diseases We Will Focus on During Your Prevention Visit

Cancer

- **Colorectal Cancer**
  Fecal occult blood test (FOBT) or Fecal Immunochemical test (FIT)
  Sigmoidoscopy
  Colonoscopy

Diabetes

- Fasting Blood Sugar every 3 years, < 6 mmol

OR

- HbA1c every 3 years, <6.0%
- High risk – HbA1c or FBS every 1 year

Heart Disease

- Blood pressure ≤140/90, Framingham risk score <10%
- Target blood pressure ≤130/80, UKPDS score
- LDL (Diabetic): < 2 mmol/L
- LDL (Non-Diabetic):
  - <3.5 mmol/L (moderate risk)
  - <5 mmol/L (low risk)

These are regular screening intervals and healthy targets

Family History

Male

Mental Health

Nutrition

- Less than 1 tsp of salt each day
- Limit high fat foods

Physical Activity

- Engage in 150 minutes (cumulative) of moderate physical activity each week

- Normal body mass index 18.5-24.9
- Waist circumference <102cm

Alcohol

- Low-risk drinking guidelines: 1-2 drinks a day, total 14 drinks each week

1 drink = 1 beer, 5 oz wine or 1.5 oz liquor

Smoking

- Set a quit date
- Plan to reduce

Factors that Determine Your Risk for Chronic Disease

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Prevention Prescription

Date: ____ / ____ / ____ Patient Identifier: [| | | | | |]
(month) (day) (year)

Your Health Care Team and You Working Together:
THE PREVENTION PRESCRIPTION

At your visit, we worked together to identify a number of important actions you can take to help prevent chronic disease. This tool can be used to increase your understanding of the recommended guidelines for regular screening around some of the following potential lifestyle concerns and chronic diseases. Together, we can take steps to support and improve your health and well-being!

Screening For:	Your Status/Results	When to Re-Check	Referrals/Actions
Cardiovascular Disease			
BMI			
Blood pressure			
Cholesterol			
Diabetes			
Fasting blood sugar			
Cancer Screening			
Fecal Occult Blood Test (FOBT)			
Sigmoidoscopy			
Colonoscopy			
Pap test			
Mammogram			
Lifestyle Concerns			
Physical activity			
Diet			
Alcohol			
Smoking			
Other lifestyle concerns:			

Resources available to help you (websites, handouts etc.):

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Date: ____/____/____ (month) (day) (year) Patient Identifier: [| | | | | |]

Your Name: ____________ (Last) ____________ (First)

	1	2	3	4	5	6	7
	WAYS I CAN IMPROVE MY HEALTH – WHAT? (Set Your Goal)	WHAT WILL STOP YOU?	HOW MUCH?	HOW OFTEN?	WHEN?	WHERE?	RATE YOUR CONFIDENCE (Choose One per Goal)
Goal #1							How Confident Am I That I Can Reach This Goal? ○ 0 – Not at all confident ○ 1 ○ 2 ○ 3 – A little confident ○ 4 ○ 5 – Somewhat confident ○ 6 ○ 7 ○ 8 – Very confident ○ 9 ○ 10 – Totally confident
Goal #2							How Confident Am I That I Can Reach This Goal? ○ 0 – Not at all confident ○ 1 ○ 2 ○ 3 – A little confident ○ 4 ○ 5 – Somewhat confident ○ 6 ○ 7 ○ 8 – Very confident ○ 9 ○ 10 – Totally confident
Goal #3							How Confident Am I That I Can Reach This Goal? ○ 0 – Not at all confident ○ 1 ○ 2 ○ 3 – A little confident ○ 4 ○ 5 – Somewhat confident ○ 6 ○ 7 ○ 8 – Very confident ○ 9 ○ 10 – Totally confident

What patients say about the BETTER Program

- **What did you like about your visit(s) with your Prevention Practitioner?**

“Very thorough reading my complicated medical history on my 1st visit. I didn’t have to re-hash a lots of stuff as she knew already. Made sure that all the little issues like blood work, occult blood test, colonoscopy was done. Doctor misses these things but not the LPN. Wish I saw her on a regular basis. Top notch. Hated to finish with the program.”

What patients say about the BETTER Program

- **What would you like to be different?**

  “Needs to be a permanent part of Health Care. Preventative care before health issues get out of hand. If I had been seeing a LPN I would not have the chronic illness now without question. She would have picked up issues long before they became a serious problem.”

- **Any other comments?**

  “It only makes sense to focus on wellness & prevention but for some reason the Province deals with health issues after they are well established.”

Economic Evaluation

Intervention	Costs per patient	Actions met per patient	ICER
Control	$43	2.06	--
PF	$106	2.73	Inefficient
PP	$122	4.94	$28 / action met
PF/PP	$155	5.26	$103 / action met

ICER = Incremental cost-effectiveness ratio for the extra cost for one additional action met

Cost to the family practice

Intervention	Average practice costs per patient	Average practice revenues per patient	Net practice costs per patient
Control	$6	$14	**-$9**
PF	$54	$21	**$33**
PP	$74	$26	**$49**
PF/PP	$115	$24	**$91**

- Practice costs: Time spent by PF, PP, allied health professionals (nursing, internal referrals) within the practice. Excluding costs incurred outside the practice (procedures, lab tests, physician costs and external referrals).
- Practice revenues: Income generated through billings and incentives.
- Net practice costs = Practice costs – practice revenues.

Questions?

Contact us:
Carolina Aguilar
Coordinator, The BETTER Program
E-mail: carolina.aguilar@ualberta.ca
Website: www.better.utoronto.ca