Obesity Management Planning Framework for Inter-professional Primary Care

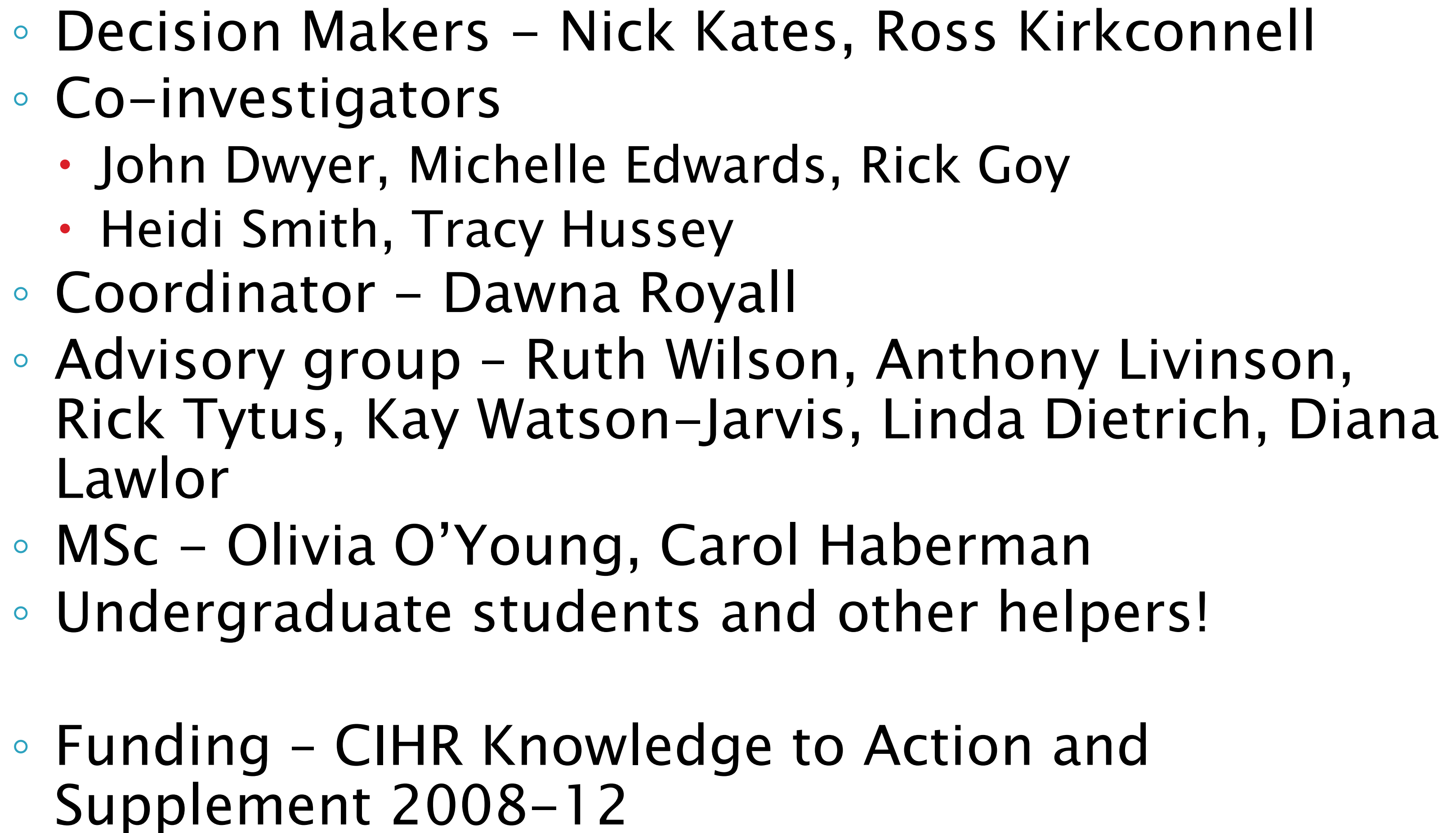
Paula Brauer, PhD, RD
Guelph, Ontario, Canada

UNIVERSITY of GUELPH

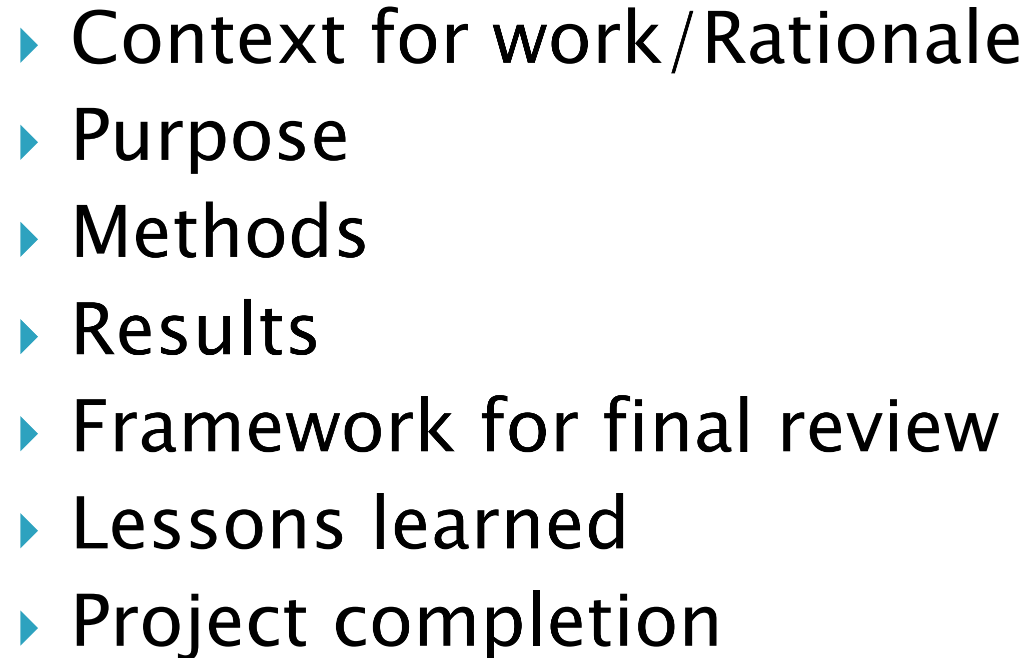
CHANGING LIVES IMPROVING LIFE

Oct 16, 2012
Association of Family Health Teams of Ontario

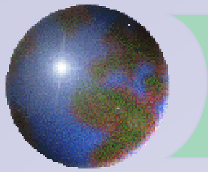
Team



Outline

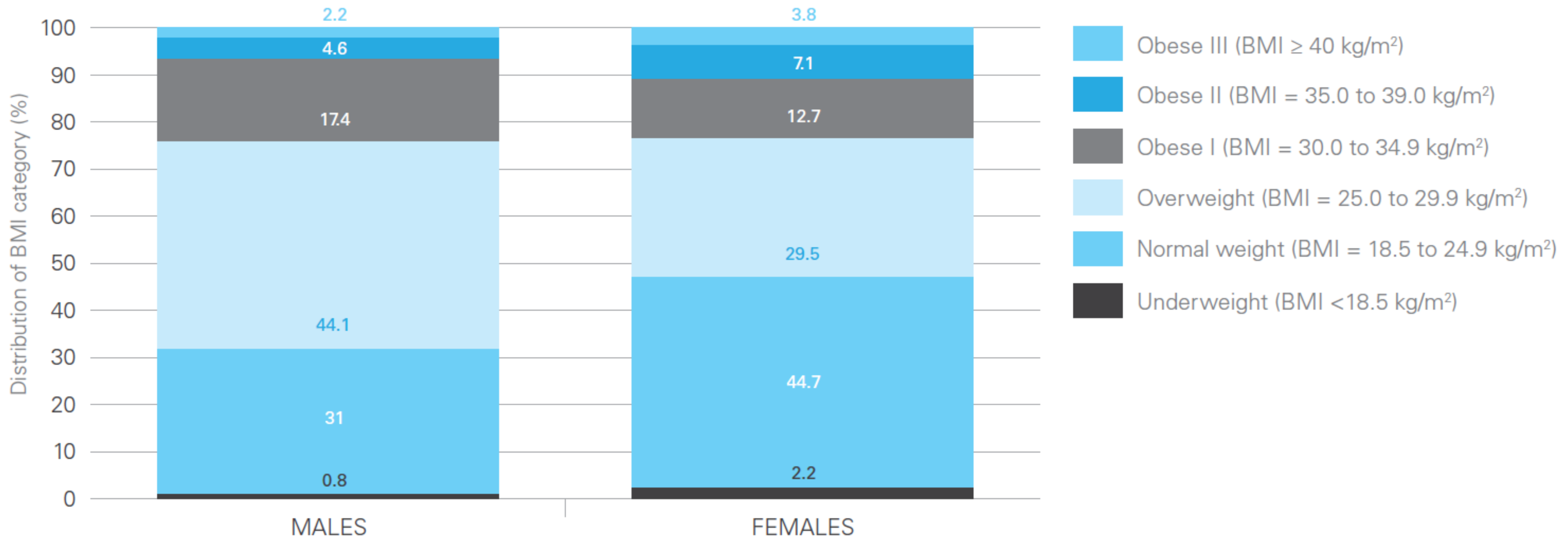


- Context for work/Rationale
- Purpose
- Methods
- Results
- Framework for final review
- Lessons learned
- Project completion



Issues for Planning Obesity Services

- Most prevalent nutrition-related condition
  - 24% adults have BMI>30 (18-79)
  - 9% children (6-17 y) Cole system
- Health risk varies – fit obese, metabolic syndrome
- All interventions – modest efficacy
- Primary care - logical location for services
  - Different provinces – different systems
  - Current practice highly variable



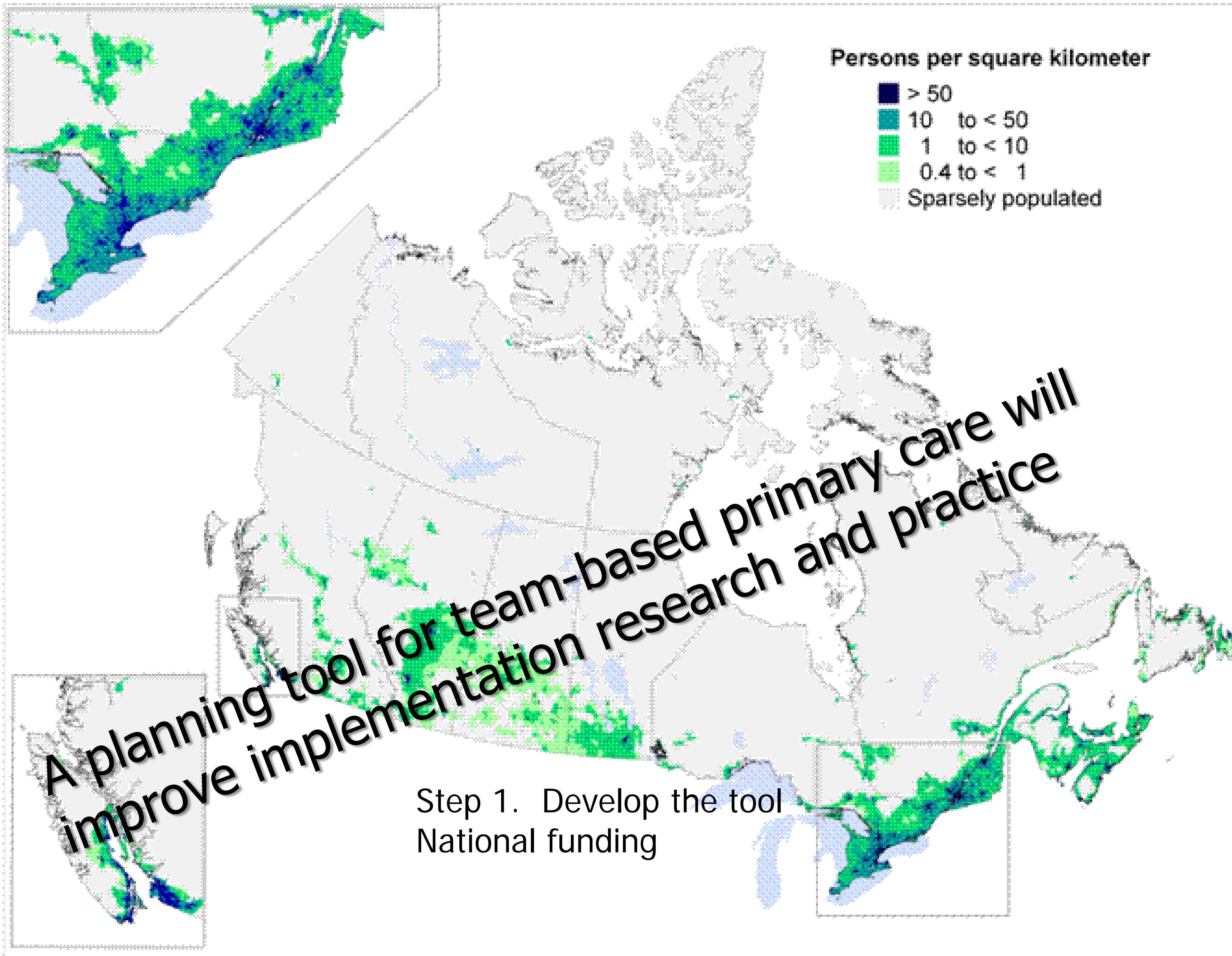
Canadian Health Measures Survey: Cycle 1 Data Tables

Progress to Date – within PC

- Increased resources
  - Programmatic – diabetes, chronic disease
  - Skills – people, expertise
  - Capital – EMRs, buildings, equipment
  - **Increased strategic planning capacity**
- Development of team "community of practice"
  - Canadian Obesity Network
  - AFHTO, Quebec, Alberta PCNs
- More attention by guidelines' groups
  - USPSTF, Australian guidelines coming out Nov

What services to offer?

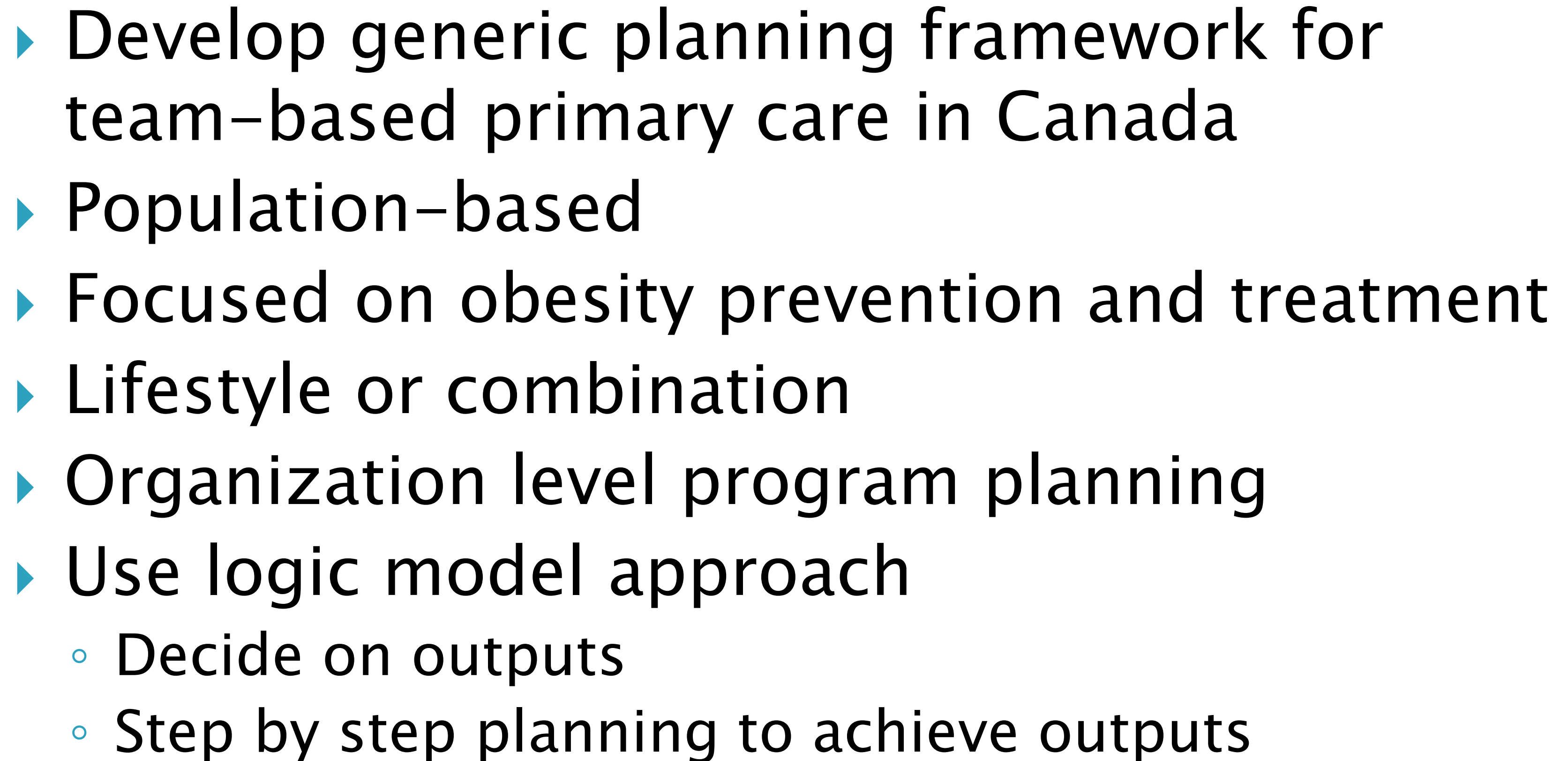
- Practice guidelines help define what to do
- Sparse evidence on how to implement in routine practice – review
- What systems may be necessary to ensure widespread adoption? – planning tools, training, incentives, etc.
  - The Centre for Obesity Management and Prevention Research Excellence in Primary Health Care, Australia


Persons per square kilometer
> 50
10 to < 50
1 to < 10
0.4 to < 1
Sparsely populated
A planning tool for team-based primary care will improve implementation research and practice
Step 1. Develop the tool
National funding

Helpful Program Planning Tools

- Chronic Disease Prevention and Management Models
  - Core administrative elements/QI skills on care processes
- WHO planning framework for prevention of chronic disease (2005)
  - Speaks to resources
- MRC (UK) guide to developing and evaluating complex interventions
  - Emphasizes provider input
- Logic models
  - Step-by-step planning tool defining inputs, steps and outcomes

Purpose

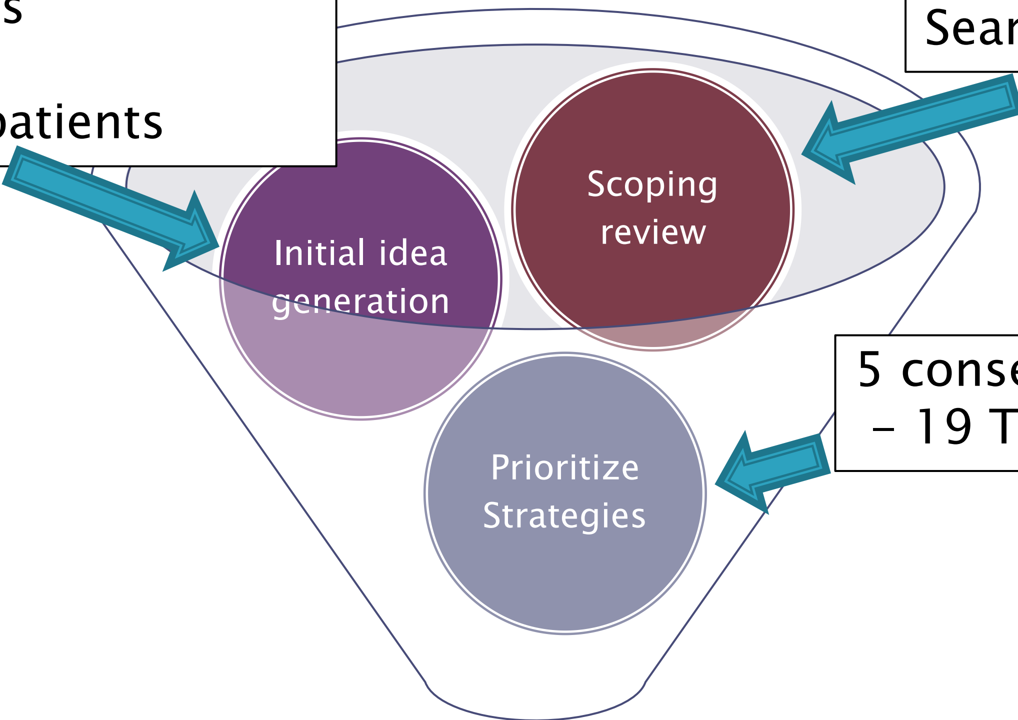


- Develop generic planning framework for team-based primary care in Canada
- Population-based
- Focused on obesity prevention and treatment
- Lifestyle or combination
- Organization level program planning
- Use logic model approach
  - Decide on outputs
  - Step by step planning to achieve outputs

Approach

11 focus groups
Hamilton FHT
Providers and patients

2003-2012
Search for PHC Studies



5 consensus workshops
– 19 Teams

Draft Planning Framework
½ day in-person, revise, review

Similar activities grouped
Reflect providers views first, evidence to support

Considered feasible
Cost not considered

Scoping review

- Literature summarized:
  - Conducted in primary care – relevance first
  - Grouped by broad disease/age focus
  - Selected for relevant change in clinical indicators
  - Study methodological quality

Quality Assessment
(Public Health Research, Education & Development)

A) Selection Bias

B) Study Design

C) Confounders

D) Blinding

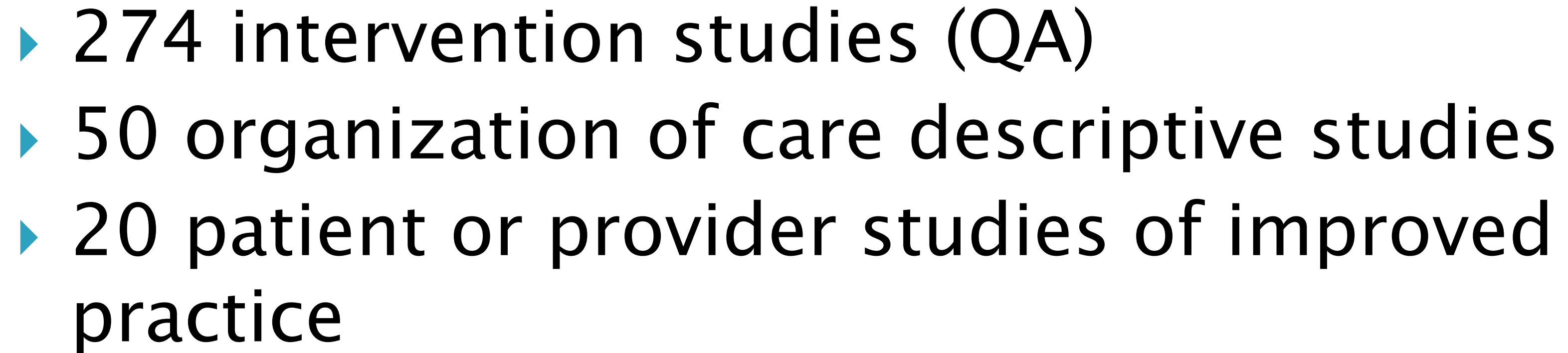
E) Data Collection Methods

F) Withdrawals & Drop-outs

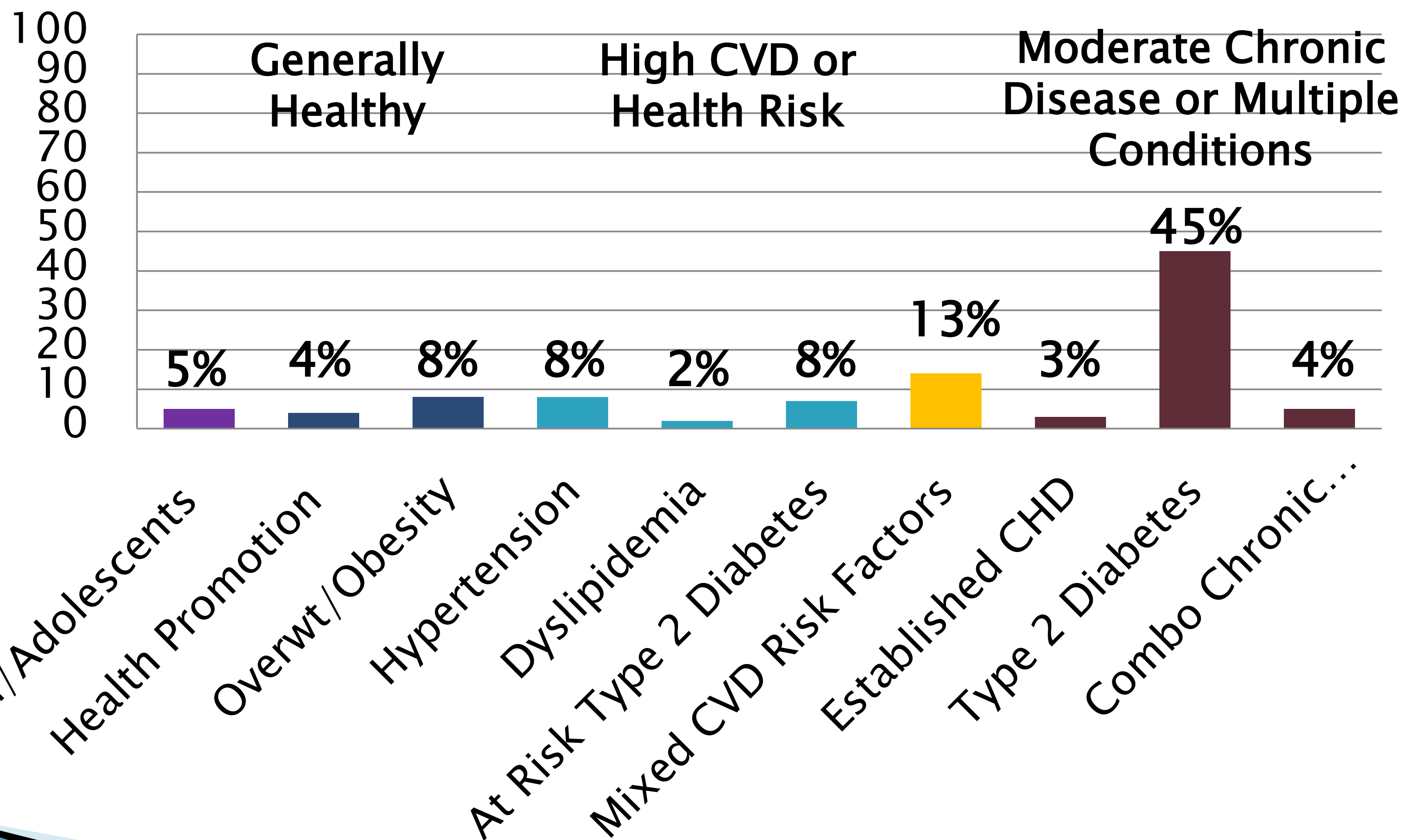
Strong
Moderate
Weak

Quality assessment too[illegible] quantitative studies (Effective Public Health Practice Project); 2007. From: http://www.myhamilton.ca/myhamilton/CityandGovernment/HealthandSocialServices/Research/EPHPP/.

Search Results



% Intervention Studies by Unique Target Groups



N=274, 2003-12

Clinically Relevant Change Criteria

	Mean Change	% Change	Source
Weight (kg)	3 kg	3	USPSTF (Leblanc et al., 2011)
BMI	1 Unit		
A1C (%)	1.0		CDA, 2008 (too severe?)
LDL-C (mmol/L)	At 3.5 =0.4 At 3.0=0.3	11	Cardiometabolic Risk Working Group, 2011
Systolic BP (mm)	5	4	Cardiometabolic Risk Working Group, 2011
Diastolic BP (mm)	4	4	Cardiometabolic Risk Working Group, 2011

Example Summary Table

Table 7: CVD Risk Studies Reporting Clinically Relevant Changes[1,2]

Author/Date[2]	Overall QA	Focus	Wt / BMI[1]	Lipids LDL-C	SBP / DBP	Baseline LDL-C	Baseline SBP	Representative[3]
Higher Lipids or SBP								
Randomized Controlled Trials								
Benner et al., (2008)	Moderate	At CVD risk, med mgt[4]		xx	xx	3.9	157	vl
Bo et al., (2007)	Strong	MS, lifestyle	xx	x (TC)[4]	x		143	vl
Eriksson et al., (2006)	Weak	At CVD risk, Lifestyle	x	x	xx	3.2	146	sw
Grover et al., (2007)	Moderate	At CVD risk; med mgt		xx	xx	3.9	137	vl
Roumie et al., (2006)	Weak	Uncontrolled treated HT; med mgt			xx		156	sw

Davies et al. 2008 (DESMOND)

Target Group
- Newly diagnosed Type 2 diabetes
- United Kingdom

Methods
- 12 mo Cluster randomized trial
- 207 GP practices, 13 sites
- 6h group lifestyle/self-mgt
- Formal training of providers
- Quality assurance – consistency
- Controls got extra funds for ++contact time
- Methods STRONG

Results (Intervention vs. Control)
- A1c

	Intervention	Control
A1c	8.3 → 6.8 %	7.9 → 6.7 %
Body weight	–3.0 kg	–1.9 kg

- Body weight
- Additional qualitative studies confirm need for range of services

Davies, M. J., Heller, S., Skinner, T. C., et al. (2008). BMJ, 336, 491–495.

Counterweight Group 2008

Target Group

- Mixed with co-morbidities
- 25% no disease
- Weight loss focus
- United Kingdom

Methods

- Pre-post study
- 56 GP practices
- 6 individual or group sessions over 3 months
- 6 mo formal training of nurses + mentoring
- Quality assurance – feedback on pt outcomes
- Methods WEAK

Results (55% provided 12 month data)

Body weight

−3.0 kg

- 14% of all enrollees maintained ≥ 5% weight loss

Counterweight Project Team. (2008). J Health Serv Res Policy 13, 158-166.

Janssen et al. 2009 (ADDITION)

Target Group
- Screen detected Type 2 diabetes
- Netherlands
- Sub-study of ADDITION

Methods
- 12 mo Cluster randomized trial
- 79 practices
- Nurse -led intensive for CVD risk factors
- Lifestyle and medication adjustment
- Five visits in 12 wk, then quarterly with both GP and nurse
- Methods MODERATE

Results (Intervention vs. Control)
- A1c

  Intervention 7.3 → 6.2 % Control 7.4 → 6.5%

- BMI

  Intervention 31.2 → 29.8 (-1.4) Control 30.4 → 30.6 (+0.2)

Jansen PG, et al. (2009). British J General Practice , 59, 43-48.

Appel et al. 2011

Target Group
- Obese and ≥1 HT DM or dyslipidemia
- Email and web
- United States

Methods
- 24 mo randomized trial
- 45 GP practices, 6 sites
- Remote coaching/web/email – 12 calls in 3 mo
- 12 In-person group/individual lifestyle
- Control group – usual care
- Limited provider involvement-company run
- Methods STRONG

Results (Intervention vs. Control) 24 months -94% had data
- Body weight – mean change

  Remote -4.6 kg In-person -5.1 kg Control -0.8 kg
- % achieving 5% weight loss

  Remote 38% In-person 41% Control 19%

Appel LJ, et al. N Engl J Med 2011;365:1959-68. .

Consensus meetings

http://business.queensu.ca/centres/qedc/index.php

Viewing the Framework

Target Group (Detailed Description)	Pregnancy to 2 years	3 -12 years	13-18 years	18+ Generally Healthy	18+ Medically Complex
Total # of Activities	16	12	13	23	22
High Priority Conditions					
Category - *Strategies*	Activities				
Raising Awareness					
Providing information on health					
Providing info on community services					
Principles of Clinical Care					
Individual Care Features					
Service Delivery					
Wellness care/health check					
Episodic Care					
Drop-in clinics					
Home visits					
Group Program Specific					
Ongoing support by practice					
Social and peer support					
Expanded Services					
Availability of Team Services in Practice					
Access to External Specialist Services					
Practice Initiatives					
Creating awareness among health professionals/ education					
Patient Outcomes Review/use EMR					
Coordination/collaboration /partnerships / advocacy					

Target Group	Pregnancy to 2 years	3 -12 years	13-18 years	18+ Generally Healthy	18+ Medically Complex
Total # of Activities	16	12	13	23	22
High Priority Conditions	Gestational diabetes	Endocrine	Eating Disorders	Diabetes, High CVD Risk	
Category - *Strategies*	Activities				
Raising Awareness					

- Obesity spans all ages
- Asked to group for program planning context
- Aimed for least number of different groups
- People tend to create 5–8 groups
- Many ways to categorize "populations"
- Professions differ – public health/dietitians would consider prevention separately
- Used population ages and general health; added higher priority medical conditions

Summary of Desired Outcomes According to Target Group

Target Group	Desired Outcomes	
Pregnancy to 2 yrs	• preconception health • appropriate weight gain • maintaining / increasing physical activity • knowledge of community resources • healthy postnatal weight loss	• knowledge of self-care during postpartum period • knowledge of breastfeeding/formula • knowledge of solid food introduction • knowledge of healthy eating / portion sizes • active play • family healthy eating
3 to 12 years	• develop healthy habits • develop parental awareness of healthy lifestyles; good role modeling	• physically active • family focused approach • healthy body image
13 to 18 years	• healthy body image • healthy growth • physically active • balance of academics and healthy lifestyle • skill development appropriate to age	• knowledge of food budgeting and meal preparation • recognition and early intervention of disordered eating patterns • better community environment through collaboration between educations and providers
18+ years Generally Healthy	• weight gain prevention • increase physical activity • self-management skills for disease	• awareness of healthy weights / body acceptance • improved lifestyle balance • chronic disease prevention / health promotion • increased feelings of empowerment / confidence
18+ years Medically Complex	• achieving desired targets for chronic condition • self-management skills • patients personal goal attainment • weight maintenance/prevention of gain • improved mental health	• increased feelings of empowerment / confidence • quality of life • functional capacity • prevent or reduce risk of further complications • improve mobility, physical endurance / stamina; increase physical activity if able

Categories

Classification (Detailed Description)	Pregnancy to 2 years	3 -12 years	13-18 years	18+ Generally Healthy	18+ Medically Complex
Total # of Approaches	16	12	13	23	22
Raising Awareness					
Principles of Clinical Care					
Service Delivery					
Expanded Services					
Practice Initiatives					

Obesity Management Planning Framework

Overview of Possible Program Activities grouped according to Categories and Strategies for Each Category.

Each number indicates the overall priority for the target group. The top 5 priority approaches in each age group are highlighted in yellow. Each major approach is listed only once in the table.

Use Ctrl + Click to link to a description of each activity in the pages following.

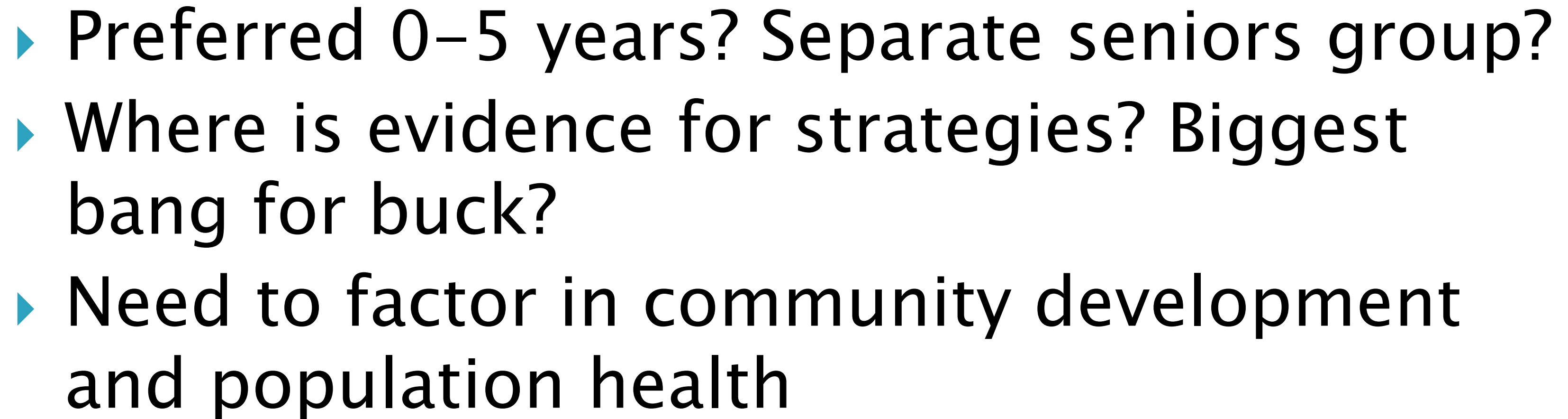
Target Group (Detailed Description of Activity)	**Pregnancy to 2 years** (pg. 7- 10)	**3 -12 years** (pg. 10 - 13)	**13-18 years** (pg. 13 - 17)	**18+ Generally Healthy** (pg. 17 - 20)	**18+ Medically Complex** (pg. 21 - 24)
Total # of Activities	**16**	**12**	**13**	**23**	**22**
Overall Category and *Strategies*	**Activities**				
Raising Awareness					
Providing information on health	4. Website/ recorded messages/apps 7. New parent / family information package	1. Parental education 4. Child targeted education; develop / incorporate healthy lifestyle literature, media, web for children 5. Family education 11. Website	3. Health promotion through social media; online support for adolescents	7. Develop survival package for living alone 11. Waiting room pamphlets, videos, website, messages, social media	
Providing info on community services		9. List of community resources / activities	5. Community resource information	4. Links to community education programs / resources	2. Community resource package
Principles of Clinical Care					
Individual Care Features	8. Good relationship with PCP 12. Screening for feeding issues (opportunistic and during wellness care)		8. Child and parent education together	3. Medical diagnosis of 'obesity' 5. Assess readiness to learn & goal setting 6. Focus on behaviour and feelings not numbers 9. Self-management support (individual or group) 14. Scheduling flexibility	3. Emphasize impact of obesity on Q of L and ADL 6. Disease specific education 7. Individual / family / support person education 18. Obesity as a medical diagnosis

Strategies Grouped within Categories

Target Group (Detailed Description)	Pregnancy to 2 years (pg. 7-9)	(
Total # of Activities	16	
Category - *Strategies*		
Raising Awareness / Providing Community Information		
Providing information on health		
Providing info on community services		
General Features of Clinical Care		
Individual Care Features		
Service Delivery		
Wellness care/health check		
Episodic Care		
Drop-in clinics		
Home visits		
Group Program Specific		
Ongoing support by practice		
Social and peer support		
Additional Services		
Availability of Team Services in Practice		
Access to External Specialist Services		
Practice Initiatives		
Creating awareness among health professionals/ education		
Patient Outcomes Review/use EMR		
Coordination/collaboration/partnerships/ advocacy		

- **Service Delivery**
  - Wellness care/health check
  - Episodic care
  - Drop-in Clinics
  - Home Visits
  - Group Program Specific
  - Ongoing support by Practice
  - Social and Peer Support

Comments from expert review



weight management		prevention		affecting weight	
Category - Strategies	Activities				
Raising Awareness					
Providing information on health *The channel varied by age but basically was health info for individuals and families*	4. Website/ recorded messages/apps 7. New parent / family information package	1. Parental education 4. Child targeted education; develop / incorporate healthy lifestyle literature, media, web for children 5. Family education 11. Website	3. Health promotion through social media; online support for adolescents	7. Develop survival package for living alone 11. Waiting room pamphlets, videos, website, messages, social media	Information needs to be tailored to individual
Providing info on community services	Community resource info	9. List of community resources / activities	5. Community resource information	4. Links to community education programs / resources	2. Community resource package
Principles of Clinical Care					
Individual Care Features	~~8. Good relationship with PCP~~		8. Child and parent education together	3. Medical diagnosis of 'obesity' – clinical	~~3. Emphasize impact of obesity on Q of L and ADL~~

75 English (Canada) 148%

Key messages

- Raising awareness – not specifically studied as intervention
- Community resources listing was high-priority in 4 of 5 groups

Target Group (Detailed Description)	Pregnancy to 2 years (pg. 7- 9)	3 -12 years (pg. 10 - 12)	13-18 years (pg. 13 - 16)	18+ Generally Healthy (pg. 16 - 19)	18+ Medically Complex (pg. 20 - 23)
Principles of Clinical Care					
Individual Care Features *Some ideas were attitudes or general focus, but not program activities – these were deleted*	~~8. Good relationship with PCP~~ 12. Screening for feeding issues (opportunistic and during wellness care))		8. Child and parent education together	3. Medical diagnosis of 'obesity' – clinical assessment and individual goal setting (all) 5. Assess readiness to learn & goal setting (all) ~~6. Focus on behaviour and feelings not numbers~~ 9. Self-management support (individual or group (all) 14. Scheduling flexibility 16. Individual Exercise and diet prescriptions (all) Treatment algorithms and patient resources (all)	3. Emphasize impact of obesity on Q of L and ADL 6. Disease specific education 7. Individual / family / support person education 18. Obesity as a medical diagnosis
Service Delivery					

Key messages

- Additional ideas from evidence in red

Service Delivery					
Traditional Wellness care/health check	2. Prenatal visit: 1:1 counselling with nurse/3rd trimester 3. Well baby visit	2. Routine check-ups / screening	1. Routine check-ups / screening; well adolescent visit	1. Annual health exam review & assessment; screening (J)	Already being seen frequently
Episodic Care	9. Identification of high risk group			13. Episodic visits for screening (C)	14. Screening for mood / depression
Drop-in clinics	10. Drop-in clinics (baby weigh-ins, parental support)		13. Drop-in clinics		
Home visits					15. Home visits

Key messages

- Use of wellness care – implied in research studies
- High-priority in 4 of 5 groups

Target Group (Detailed Description)	Pregnancy to 2 years (pg. 7- 9)	3 -12 years (pg. 10 - 12)	13-18 years (pg. 13 - 16)	18+ Generally Healthy (pg. 16 - 19)	18+ Medically Complex (pg. 20 - 23)
Group Program Specific	1. Group education: pre & post natal classes parent and baby groups	Family support; parenting groups	4. Teen group education 9. Family support system ; parent groups	2. Group education (D, C) 18. Mental health support 21. Disease prevention focus programs within current disease programs	1. Self-management group support programs; SMART goals 11. Integration of practice group programs 16. Group exercise programs 17. Disease prevention focus programs within current disease programs
Ongoing support by practice	15. System navigation guide for patients 16. Ongoing support			12. Provide navigation for SES marginalized to support networks 15. Improved access to activity supported by practice Ongoing support for treatment (all)	4. Routine visits for chronic disease check-ups 5. Case-management to navigate system 19. Develop "health passport"
Social and peer support	14. Peer support group	12. Peer support groups	10. Teenage peer support groups with peer leaders; volunteer opportunities	Peer support groups	9. Peer led self-management support groups

Key messages

- Groups supported by providers and evidence
- Ongoing support?

Expanded Services						
Availability of Team Services in Practice	5. Referral to dietitian, physical activity specialist 13. Access to lactation consultant	Access to specialized team services	11. Access to specialized team services	23. Adding expertise in PA and diet to team (D,A)	8. Access to mental health / social work 10. Internal referrals 12. Assessment by PT / kinesiologist to encourage mobility
Access to External Specialist Services	Access to specialized team services	Access to specialized team services	Access to specialized team services	22. Integration with specialist programs e.g. bariatric clinics	Access to specialized team services

Key messages

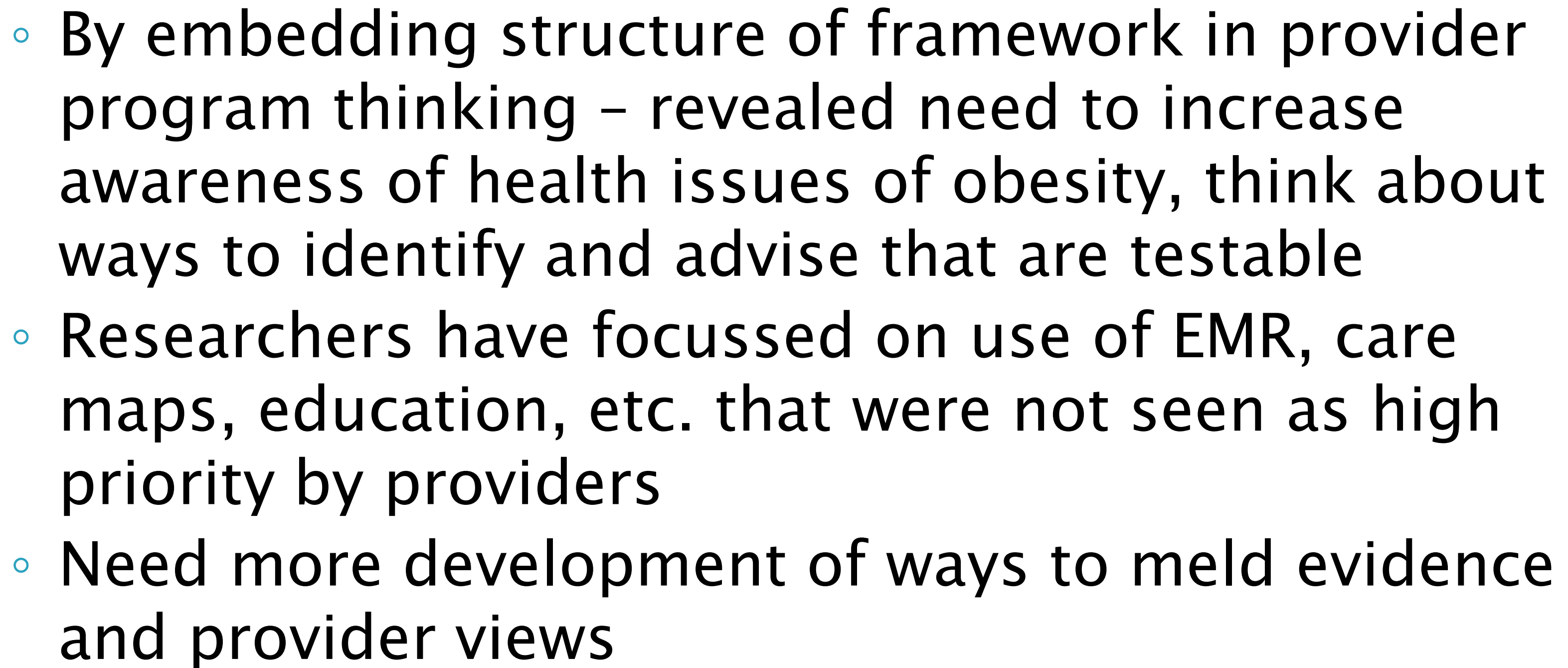
- Access to specialist team services implied in doing research and some studies included additional expertise and people
- Added this to framework – speaks to system coordination, which we know is an issue

Target Group (Detailed Description)	Pregnancy to 2 years (pg. 7- 9)	3 -12 years (pg. 10 - 12)	13-18 years (pg. 13 - 16)	18+ Generally Healthy (pg. 16 - 19)	18+ Medically Complex (pg. 20 - 23)
Practice Initiatives					
Creating awareness among health professionals/ education	11. Provider education	7. Provider education	12. Provider education – specific to age	10. Provider education with algorithms and formal programs (all) Practice facilitation (D,C,J) Nurse expanded scope to adjust medication (J)	13. Improved interdisciplinary collaboration 21. Provider education
Patient Outcomes Review/use EMR	EMR tracking	10. Develop EMR for plotting child growth	EMR tracking	19. EMR long term tracking of changes (all) 20. EMR screening of specialty groups External audit (D,C,J)	22. Electronic follow-up – communication
Coordination/collaboration/partnerships / advocacy	6. Establish partnerships	3. Establish partnerships: schools / community groups 6. School programming; integrate into school system 8. Advocacy to government for community programs	2. Work with schools Youth Advisory Committee 7. Partner with Parks & Rec; community engagement (community groups, sports teams, clubs, youth drop-in centres)	8. Outreach for workplace wellness 17. Partnering with community programs	20. Partner with community services, agencies

Key messages

- Provider education, practice facilitation, external audit and use of EMR all emerged from research
- Providers supported school partnerships as way to address child/teen obesity

Lessons learned



- By embedding structure of framework in provider program thinking – revealed need to increase awareness of health issues of obesity, think about ways to identify and advise that are testable
- Researchers have focussed on use of EMR, care maps, education, etc. that were not seen as high priority by providers
- Need more development of ways to meld evidence and provider views

Next steps

- Finish documents – final review; looking for interested expert reviewers
- Explore additional dissemination/uptake approaches – guided conversations?

- To discuss further
  - pbrauer@uoguelph.ca
  - Skype – paula.brauer