

# Adapting to a Changing World:

## Evolution and Effectiveness of Public Health Prenatal Education Programs in Ontario

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The views expressed in the presentation are the views of the LDCP Healthy Pregnancies Team and do not necessarily reflect those of Public Health Ontario



# Workshop Outline

- Background on LDCP Healthy Pregnancies research study
- Online prenatal education programs used in research project
- *Coffee Break (30 minutes)*
- Research study results
- Applying evidence to practice



# Locally Driven Collaborative Project (LDCP)

Brings together representatives from health units to collaboratively develop and implement applied research or program evaluation projects that explore a topic, intervention, or program related to an important public health issue



# 2012 Locally Driven Collaborative Projects

## Vision:

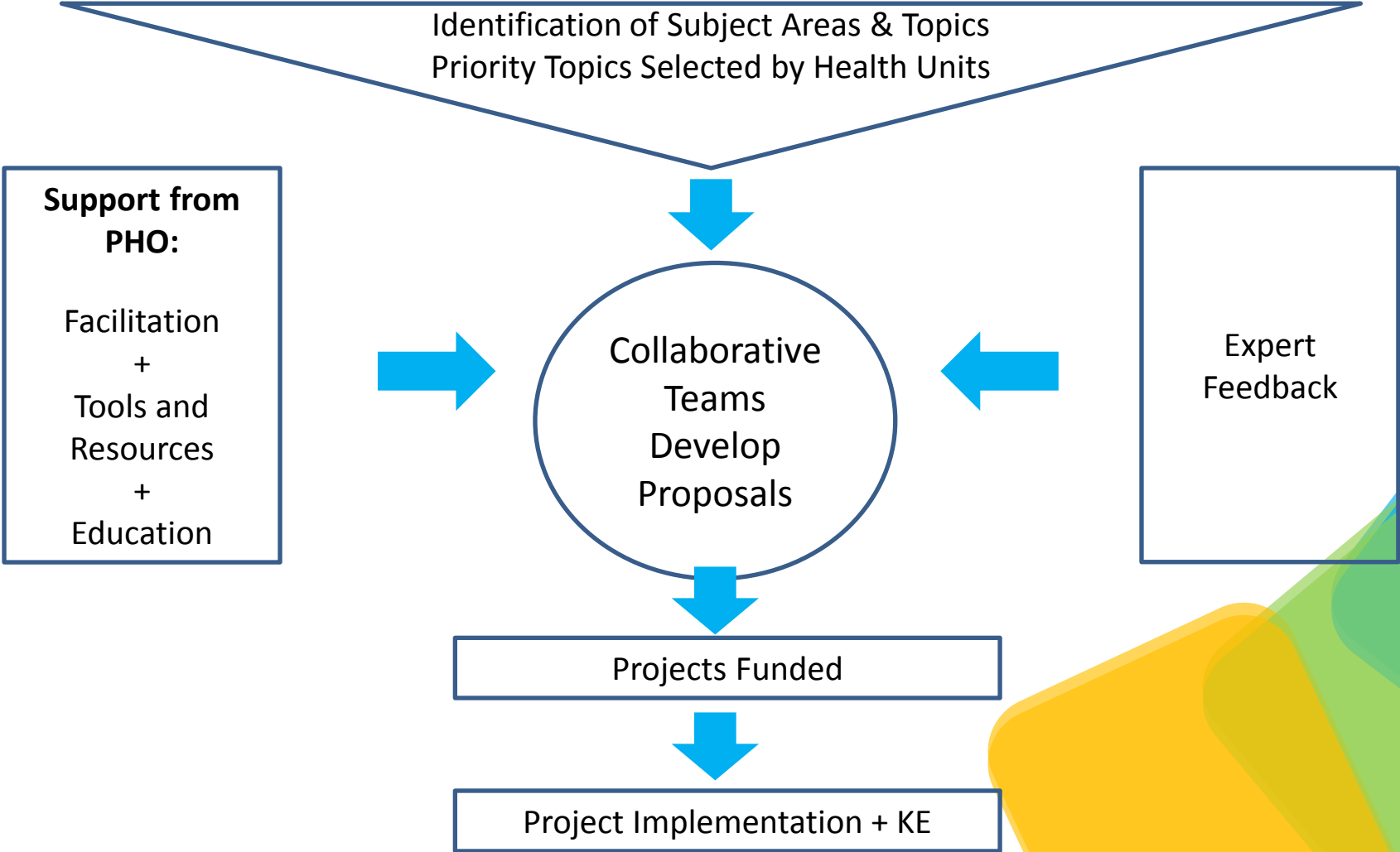
- Strengthening the public health system by enabling health units to collaboratively plan and conduct applied research and program evaluation

## Goals:

- Generate new knowledge
- Address a critical public health need
- Build partnerships
- Increase local and system capacity
- Enhance knowledge exchange



# LDCP: A Non-Competitive Process



# 2012 Locally Driven Collaborative Projects

Projects Submitted	Lead Health Unit
Developing an Evidence-Informed Guide to Support Public Action on Alcohol at the Local Level	Region of Waterloo
Pilot Study of a Standardized Breastfeeding Surveillance Data Collection Tool and Method for Ontario Public Health Units	Oxford County
Recommended Best Practices for Healthy Rural Built Environments	Chatham-Kent
Adapting Alberta's 'A Million Messages' for Implementation in Ontario's Health and Social Services System	Niagara Region
Association of knowledge among pregnant women participating in online vs. in-person public health prenatal education programs in Ontario	Oxford County
Ontario's Reality: Strategies to Increase Coverage Rates for School-Based Immunization	Kingston, Frontenac, Lennox & Addington
Analyzing the Effectiveness of Social Media Planning, Implementation, and Evaluation at Health Units in Ontario	Wellington-Dufferin-Guelph

# Who are we?

## Lead:

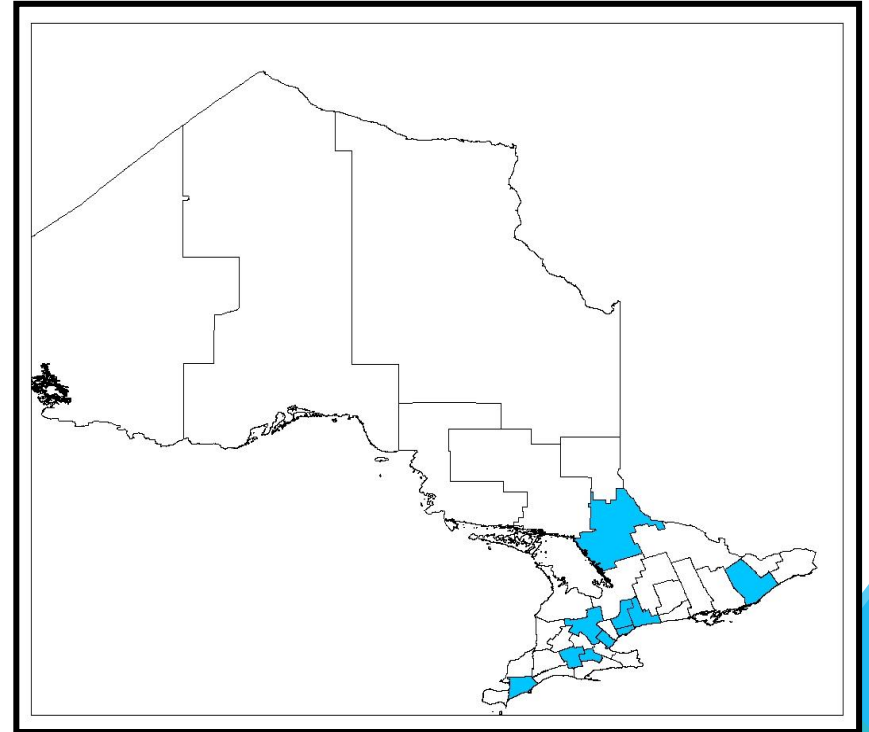
- Oxford County Public Health & Emergency Services

## Co-applicants:

- Toronto Public Health
- Wellington-Dufferin-Guelph Public Health
- Brant County Health Unit

## Collaborators:

- Best Start Resource Centre
- Chatham-Kent Public Health Unit
- Durham Region Health Department
- Halton Region Health Department
- North Bay Parry Sound District Health Unit
- Leeds, Grenville and Lanark District Health Unit
- York Region Community and Health Services





# Prenatal Education Programs in Ontario

## What we know:

- Attended by 1/3 of women and 2/3 of first-time mothers in Canada (PHAC, 2009)
- Widely recommended
- Often accessed through local public health units
- Highly variable, evolving
- Shift to online format



# Prenatal Education Programs in Ontario

Many research gaps...



# In-person Prenatal Education Programs

## Curriculum varies

- Best Start Modules
- Injoy Complete Childbirth
- Own public health unit curriculum



# Online Prenatal Education Programs

Variety of programs provided by public health units in Ontario:

- Gift of Motherhood
  - Available in French and English
- Une Nouvelle Vie/A New Prenatal Life
  - Available in French and English
- Welcome to Parenting
- Durham Region Health Department




# Environmental Scan

30 of 36 public health units responded (83%)

- All health units offered prenatal education programs
- 40% offered both online and in-person programs
- Estimated 17,612 clients served in 2011
  - Represented approximately 13% of the 139,867 live births in Ontario
- Best Start modules most often referenced and/or adapted



# Environmental Scan


- Some public health units offer additional face-to-face sessions (breastfeeding and car seats) for online participants
  - Majority of programs are free
    - Some health units charged on a cost-recovery basis of \$15-85
    - Fee waived if there are financial difficulties
- 

# Study Objectives

## Primary objective:

- To compare women's change in knowledge about healthy pregnancies, healthy lifestyles and breastfeeding before and after participating in in-person compared to online public health prenatal education programs offered in Ontario

## Secondary objectives:

- To examine the differences in learning preferences for delivery of prenatal education programs amongst pregnant adult women
  - To examine women's level of satisfaction and preferences with prenatal education
- 

# Recruitment Site Selection

Interested health units were screened

- Program content included specific topics
  - Healthy Pregnancies
  - Healthy Lifestyles
  - Breastfeeding
- Used adult learning strategies
- Average number of women participating in prenatal education programs





# Recruitment Site Selection

Other considerations included:

- Location- North, East, GTA, Southwest
- Rural/urban status
- Cultural diversity

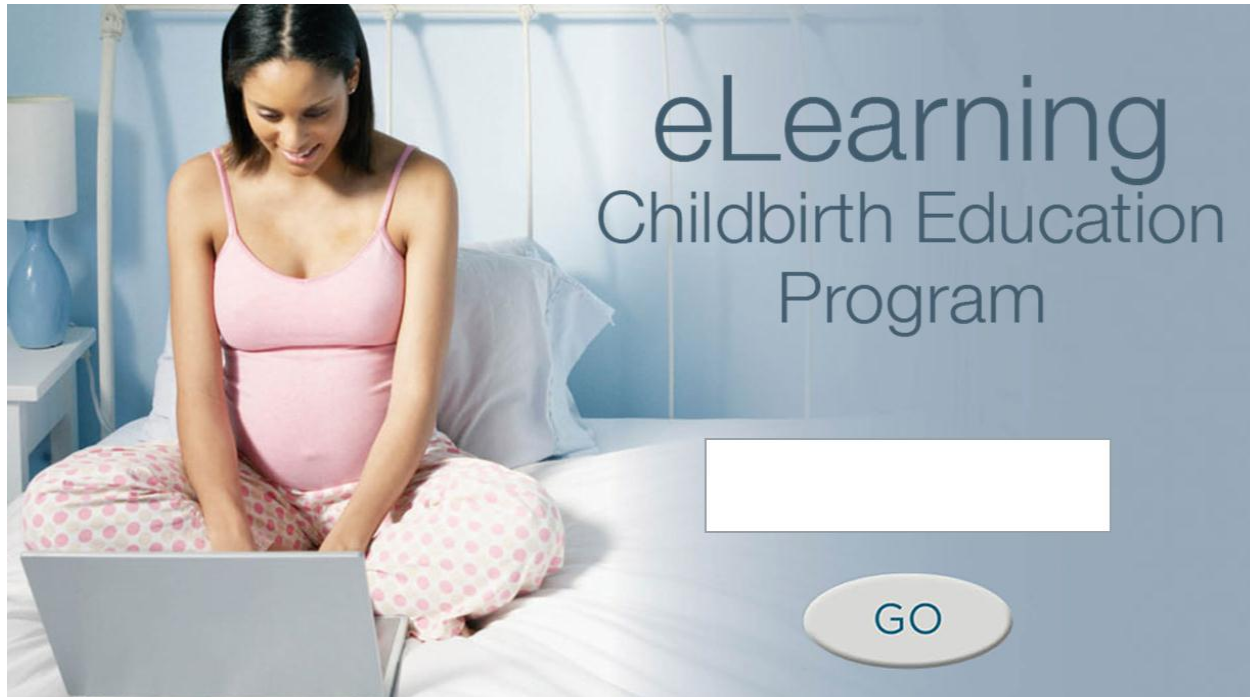
Had some form of registration for participants

- Telephone and/or online registration



# Recruitment Site Selection

Health Unit	Program Type		Size	Location
	In-person	Online		
Chatham-Kent Public Health	X	X	Small	Southwest
Halton Region Health Department	X	X	Large	GTA
Leeds, Grenville and Lanark District Health Unit	X		Small	East
North Bay Parry Sound District Health Unit	X		Small	North
Toronto Public Health		X	Large	GTA
Wellington-Dufferin-Guelph Public Health	X	X	Medium	Southwest
York Region Community and Health Services	X		Large	GTA

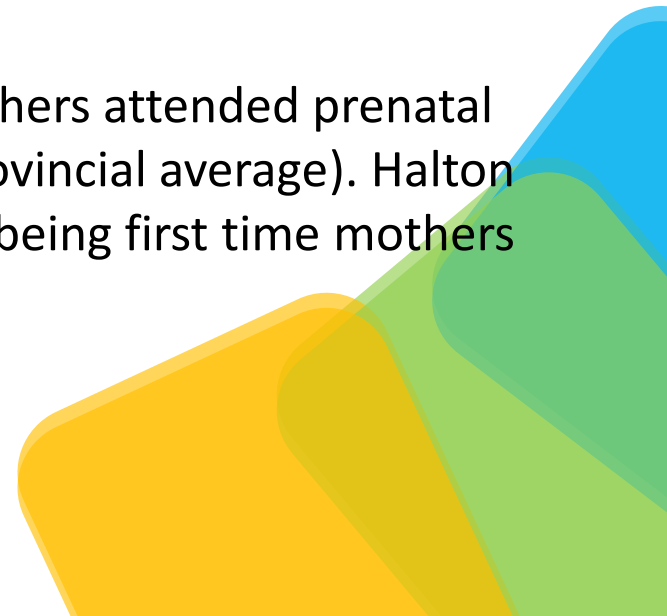


## Gift of Motherhood Online Prenatal Education Program

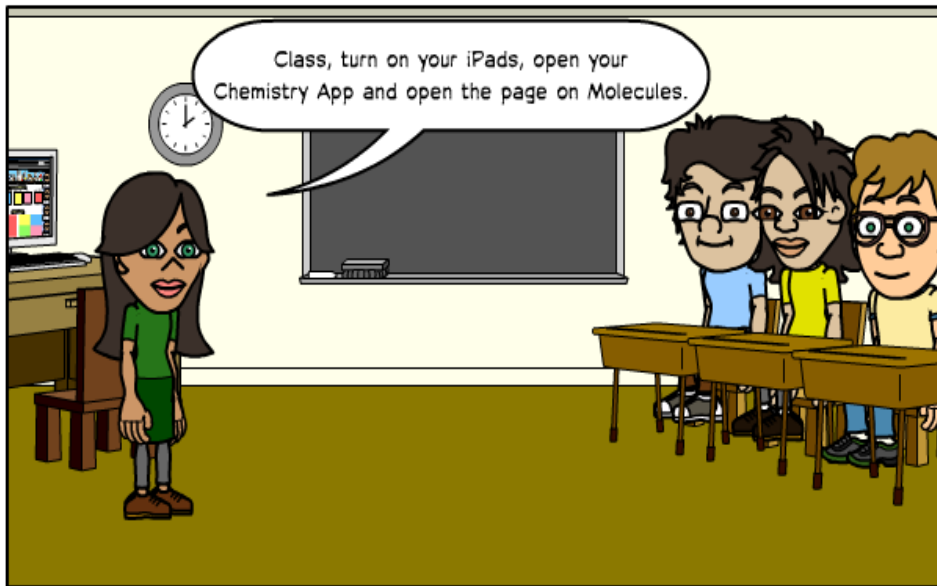
Jeanell Vanbesien, RN, BScN  
Public Health Nurse, Halton Region  
[Jeanell.vanbesien@halton.ca](mailto:Jeanell.vanbesien@halton.ca)

# Background...Why Public Health needs online prenatal education?

- Our community wants prenatal education
- Peel, who were first to use this online program, provided prenatal education in the midst of H1N1
- In 2011, 720 families attended the Public Health “Healthiest Babies Possible” Program in a 6 session series at 5 sites throughout Halton. Currently this program is the only free prenatal education program in Halton. The program due to facility limitations and staffing resources is at capacity
- According to the 2008 Niday report 30.4% of mothers attended prenatal education classes in Halton. (above the 24.9% provincial average). Halton had 5744 births in 2009 with approximately 48% being first time mothers (2800 families)



# Shift to Online Learning



Research



# Program Review and Customization of Customized Communications (CCI) Gift of Motherhood(GOM) Prenatal Education Program

www.haltonparents.ca  
...for your entire parenting journey

Welcome  
Parents-to-Be  
to the Halton Online  
Prenatal Program

Halton  
REGION

THE GIFT OF MOTHERHOOD  
*Your personal journey through prepared childbirth*

Intro  
Chapter 1  
Chapter 2  
Chapter 3  
Chapter 4  
Chapter 5  
Chapter 6  
Chapter 7  
Glossary

Welcome to the eLearning Prenatal Program  
NEXT ▶

Go to page:  
 →

# Program Review and Customization of Customized Communications (CCI) Gift of Motherhood Prenatal Education Program cont.

## How to use this program



Listen to audio as you read



Pause audio



View valuable information

**word**

Rollover for more information



View video



Enable video closed captions



Download PDF

## Features Include:

- Chapters
- Videos
- Audio
- Closed captioned
- Word roll overs

# GOM Prenatal Program Overview

- Incorporated Ontario Public Health Standards
- Met BFI standards
- Normalized Birth
- Over 8 hours of prenatal education
- Accessible when most convenient for participants
- Ability to customize tab information yearly





# GOM Prenatal Program Overview continued...

- Ability to customize tab information yearly



You need Adobe Acrobat Reader to view PDF documents. [Click HERE to download Adobe Acrobat Reader](#)



Growing a  
healthy baby



# Client Registration Process

Going to be  
a parent?



## Registration

- [Online](#)
- Call 311 or 905-825-6000 and ask to register for the Online Prenatal Program.

- Clients register online or over the phone
- Clients receive an email within 24 hours that registration in process
- Code to program is emailed within 1-2 business days
- Halton has an open access option that is a yearly fee of unlimited codes based on our birth rate
- 2013: 712 codes
- 2014: 760 codes

# Screen shot of website registration

## Prenatal Registration Form

Please fill in the information below to register for any of our programs and classes.

### 1. Personal Information

Full Name (required):

Phone Number (required):  [why collect this?](#)

Email (required):  [why collect this?](#)

Postal Code (required):  [why collect this?](#)

Due Date (required):  



All 2014 dates are now full for:



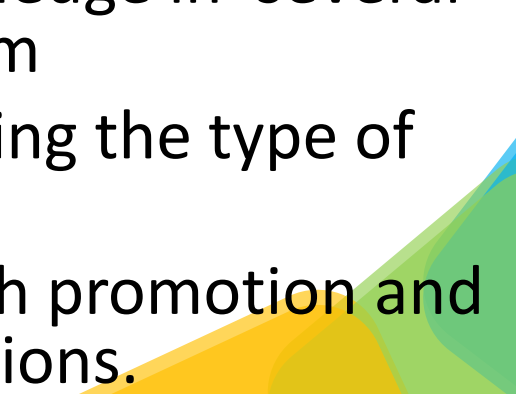
- [Prenatal Car Seat Class](#)
- [Prenatal Breastfeeding Class](#)
- [Healthiest Babies Possible](#)

**Register for 2015 classes by dialing 311 or 905-825-6000.**

# Addition of Car Seat and Breastfeeding Face to Face Classes



# Successes of Online Prenatal Education

- Born data 2013 shows 1, 517 of Halton's 5,579 births took prenatal education and 2369 were first time mom's. In 2013, 712 took on-line and 589 took face to face (total 1301). This means we serviced 87% of clients who took prenatal education through Halton Region.
  - Clients are reporting increased knowledge in several areas after completion of the program
  - Positive feedback that clients are taking the type of education right for them
  - Increase in staffing capacity for health promotion and programs targeted for at risk populations.
- 

# How does the program stay current?

- Yearly updates of tabs
- Collaborative GOM group in process
- Fast turnaround of edits by CCI



**QUESTIONS?**





welcome  
to **parenting** the journey from  
pregnancy to parenthood

**FREE Online Prenatal Program  
for families living in Toronto**



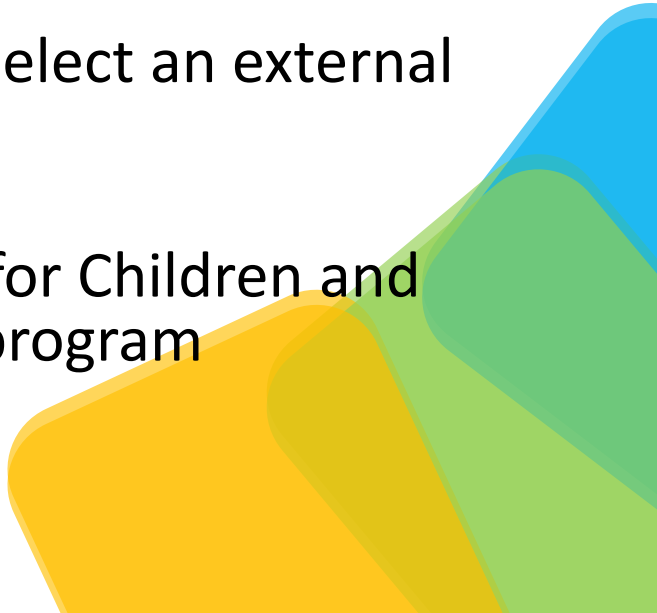
Evelyn Vaccari, MHSc, RD  
[evaccar@toronto.ca](mailto:evaccar@toronto.ca)

Consultant, Nutrition Promotion  
Toronto Public Health





# Background

- Toronto City Council approved the TPH operational budget recommending (fall 2011):
    - Discontinuing the evening prenatal program
    - Implementing an online prenatal program
  - TPH assessment regarding type of online prenatal program
  - Request for Proposals (RFP) process to select an external vendor (2012)
  - Successful vendor: The Phoenix Centre for Children and Families for the Welcome to Parenting program
- 

# Contract Components

- License
- Program customization
- Implementation
- Program access codes
- Hosting/ maintenance
- Reporting



# Program Review & Customization

- 29 Prenatal Classes reviewed
  - Content (text & visuals), PDFs, links
  - Reviewed from various perspectives
    - Prenatal health promotion, nutrition, breastfeeding, fathering
- Additional reviews of revised/updated components
- Functionality testing
  - IT staff and Reproductive Health & CPNP Workgroups provided support

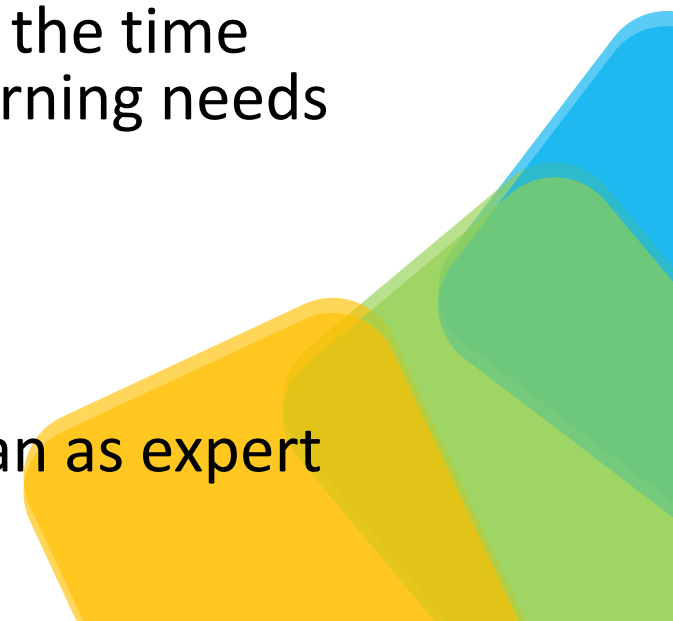


# Program Review & Customization

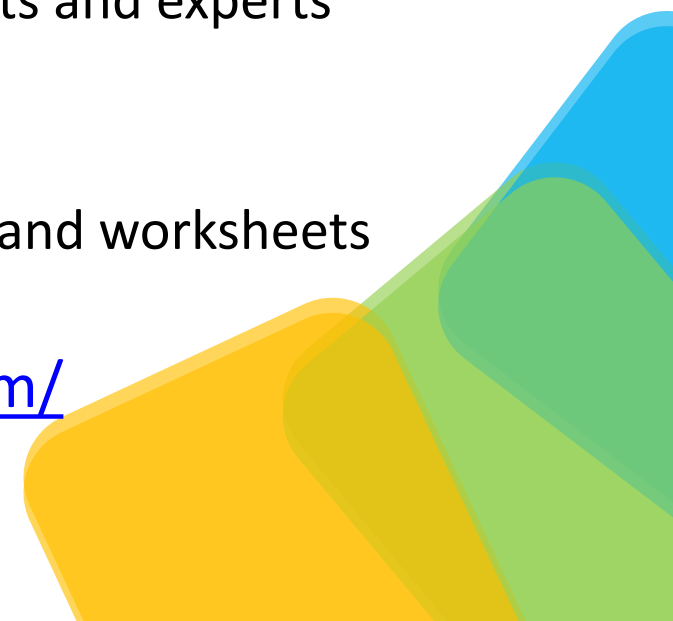
- Incorporated many TPH messages and resources
  - e.g., replaced all food recipes with TPH recipes based on TPH Recipe Guidelines
- Conducted a thorough BFI review and made many changes
  - e.g., disclaimers before videos, rephrasing text, replacing images



# Prenatal Program Overview

- Over 15 hours of prenatal material
    - 29 classes
  - Accessible when most convenient
  - Flexible, 25 minute classes
    - Participants can choose to shorten the time spent in order to best suit their learning needs
  - Panel of experts - prenatal, child development and parenting
    - Added TPH E-chat button & dietitian as expert
- 

# Prenatal Program Overview (cont)

- An online 'Parent Zone' community
    - Mum's Corner
    - Caregiver Corner
    - Dad's Corner
  - Parenting Q & A
    - Allows participants to talk to other parents and experts
  - Interactive features
    - Audio, videos, quizzes, games, checklists and worksheets
  - <http://toronto.welcometoparenting.com/>
- 



welcome to parenting the journey from pregnancy to parenthood

Search Classes

- my classes topics parenting q&a experts parent zone red flags

Welcome to class! Let's get started! This is undoubtedly one of the most exciting times of your life! We are delighted to share your journey with you. You have been automatically placed into a group of other parents with a similar delivery date. This way you can experience the support of others going through exactly the same things you are, day by day, week by week. Go to My Classes.



My Classes: Browse through your journey, and track the required and optional tasks you need to achieve each learning goal.

Topics: A comprehensive list of available courses and learning paths grouped by category.

Parenting Q&A: You may ask any question at any time. We have a panel of experts ready to deal with all your questions and concerns.

Experts: We have an impressive and diverse group of experts to support you along your journey. Experts in prenatal education, child development, and parenting are here...ready to answer your questions.

Parent Zone: Your experiences, concerns and celebrations are largely the same. In the Parent Zone there is a community of support just waiting for you. You have been placed in a group who have a delivery date similar to yours...click here to connect and begin to share your journey with others who truly understand what you are going through!

Red Flags: One of the most critical sections of the site, Red Flags provide a quick reference of symptoms that you should report to your doctor, midwife or therapist. These include symptoms that may indicate that Mom, Dad or Baby is not well and may require professional intervention.



brings you **welcome to parenting** the journey from pregnancy to parenthood

Search Classes

- my classes
- topics
- parenting q&a
- experts
- parent zone
- resources

## my classes

Becoming pregnant marks the start of a life-changing journey. You can be comforted by the fact that although everyone has their own unique experience, there is much that all expectant parents share and experience. So you need not feel alone. Each step of the way, we are here for you. And at every turn, there will be another expectant parent experiencing exactly what you are. The opportunities for support and sharing are infinite!

Click on your class below to begin your journey.



Active

● Title ● Code ● Start Date ● Last Accessed

### Class 01 Welcome to Prenatal Classes

Start

Publisher: City of Toronto  
Welcome to Prenatal Classes

Show Resources



### Class 02 Welcome to First Trimester

Start

Publisher: City of Toronto  
Welcome to First Trimester

Show Resources

### Class 03 Looking Out for You and Baby

Start

Publisher: City of Toronto  
Prenatal Class 03 Looking Out for You and Baby

Show Resources



### Class 04 How Your Baby Grows

Start

Publisher: City of Toronto  
How Your Baby Grows

Show Resources

### Class 05 Fasten Your Seatbelt

Start

Publisher: City of Toronto  
Fasten Your Seatbelt

Show Resources



### Class 06 A Healthy Start

Start

Publisher: City of Toronto





brings you **welcome to parenting** the journey from pregnancy to parenthood

- [home](#)
- [about us](#)
- [about the program](#)
- [testimonials](#)
- [contact us](#)

**Log In**

Email:

Password:

[Forgot password](#) [Log In](#)

**Tweets** [Follow](#)

welcome **Welcome to Parenting** 24 Nov  
@welcome2parents  
Traveling while pregnant, will your travel insurance protect you and baby?  
on.thestar.com/1xNSM3H

welcome **Welcome to** 10 Nov  
Tweet to @welcome2parents

### Contact Us

For more information on Toronto Public Health programs and services:  
 Phone: 416-338-7600  
 TTY customers: 416-392-0658  
 8:30 a.m. to 4:30 p.m. Monday to Friday  
[publichealth@toronto.ca](mailto:publichealth@toronto.ca)

### Technical Support

If you are experiencing difficulty accessing the website, please contact us at: [support@welcometoparenting.com](mailto:support@welcometoparenting.com).

The Welcome to Parenting program is best viewed in the following browsers or higher: Internet Explorer 9, Mozilla Firefox 24, Safari 7, and Chrome 30.

Note: If you are using smartphones or tablets to view the program, some functionality may be lost.

The Phoenix Centre for Children and Families  
 130 Pembroke St W.  
 Pembroke, Ontario K8A5M8  
 1-800-465-1870

Thank you!


**LIVE eCHAT** Chat with a Public Health Nurse or Dietitian

Online

[Terms and Conditions](#)



# Client Registration Process

- Registration is accessed through TPH Pregnancy webpage
  - Fluid Survey online registration (5 minutes)
  - Program criteria:
    - Pregnant women or partner
    - Toronto resident
    - Provide consent
  - Upon completion, notification is received that promo code to create 2 program accounts is provided within 2 business days
- 

Child & Family Health

Pregnancy

Before Pregnancy

Prenatal Programs

Prenatal Health Care

Your Pregnant Body

Staying Healthy

Emotional Health

Preterm Labour

Baby's Arrival

Breastfeeding

Postpartum Depression and Anxiety

Parenting

Dental Health

Day Nursery Hygiene

Prenatal Programs

Share

# Welcome to Parenting Online Program



## Who can register for the online program?

The program is for women and their partners who are:

- expecting a baby
- living in Toronto

## What does the program offer?

Welcome to Parenting is a free online prenatal program that provides expectant parents with the knowledge, skills and confidence to have a baby and prepare for parenthood.

## Topics include:

- having a healthy pregnancy
- healthy eating during pregnancy
- basic labour and birth
- breastfeeding
- becoming a parent

## The program also provides:

- Experts in prenatal education, child development and parenting to answer your questions
- Parent Zone to connect online with other families in Toronto
- Dad's Corner

## Register


[Register online](#)

If you are already registered, log in or enter your promo code at [Welcome to Parenting](#)

## Other Prenatal Programs

- [Canada Prenatal Nutrition Program \(CPNP\)](#)
- [Healthiest Babies Possible](#)
- [Teen Prenatal Program](#)
- [Healthy Babies Healthy Children](#)

# Registration procedure for prenatal support assistant (PSA)


- MIH Online Prenatal Registration Procedure (2013)
    - Outlines procedure for PSA when completing TPH Online Prenatal Program customer registrations
  - Exporting registrations into spreadsheet; assigning promo codes
  - Entering registration into electronic customer management system
  - Emailing program information and instructions ([onlineprenatal@toronto.ca](mailto:onlineprenatal@toronto.ca))
- 

# Program Promotion



welcome  
to **parenting** the journey from  
pregnancy to parenthood





Are you ready?

Nervous?

Excited?

welcome  
to **parenting** the journey from  
pregnancy to parenthood

## FREE Online Prenatal Program for families living in Toronto


Gain knowledge, skills and confidence as you get ready to become a parent.

Welcome to Parenting includes:

- Interactive and fun classes - on pregnancy, labour, birth, what to expect when baby arrives...and so much more
- Experts in prenatal, child development and parenting to answer your questions
- Parent Zone to connect online with other families in Toronto

To register: [toronto.ca/health/pregnancy](http://toronto.ca/health/pregnancy)

416.338.7600 [toronto.ca/health](http://toronto.ca/health) |  **TORONTO** Public Health



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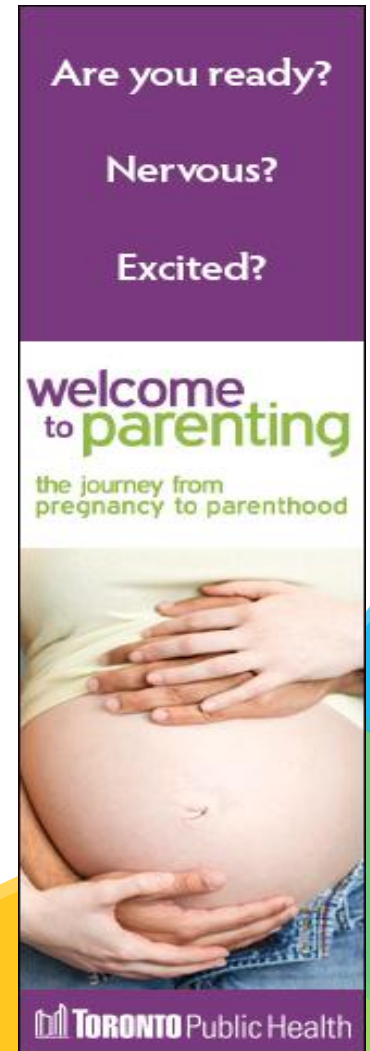
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- Experts in prenatal, child development and parenting to answer your questions
- Parent Zone to connect online with other families in Toronto

To register: [toronto.ca/health/pregnancy](http://toronto.ca/health/pregnancy)

# Program Promotion

- TTC ads in buses, streetcars and subways
- Grassroots Media in convenience stores across Toronto
- Posters in libraries & recreation centres
- Poster ads with postcards at two hospitals
- PHSN video clips in medical waiting rooms
- Online ads
- Social media (Facebook and Twitter)



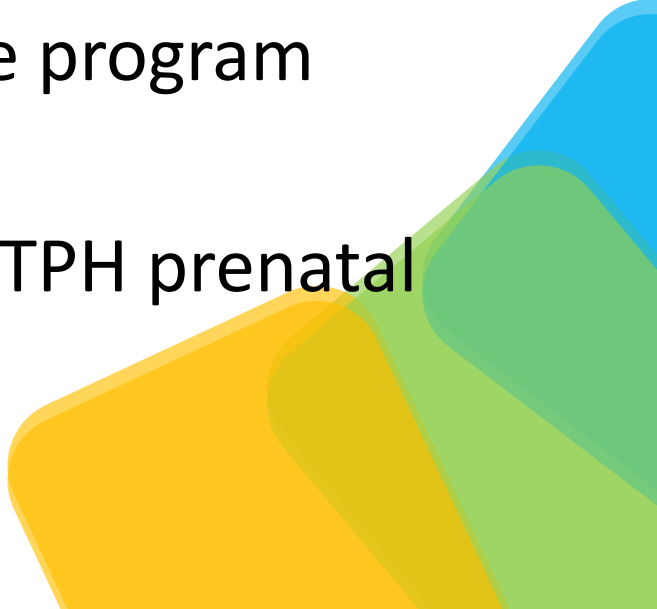


# Program Promotion – Healthcare Providers (HCPs)

- Internal promotion to TPH & city staff
  - Memos, broadcast emails, newsletters, intranet
  - Tear pads/ postcards
- External HPCs
  - Resources sent to community partners
  - Article in Communiqué newsletter & Health Professionals website
  - Promotion at physician conferences



# Successes

- Increased reach of prenatal clients
    - 2014: 1650 promo codes distributed
  - No waiting lists
  - Staff time required to support the program
  - Supplemental resource for other TPH prenatal programs
- 

**QUESTIONS?**



**COFFEE BREAK**

**10:30 – 11:00 AM**



# Study Design

- Quasi-experimental study
- Pre- and post-prenatal program surveys measured knowledge change related to:
  - Healthy pregnancies
  - Healthy lifestyles
  - Breastfeeding



# Literature Review

- September- November 2012
- Peer-reviewed & grey literature examined
- Examined each relevant article or website for content, question types, and basic design



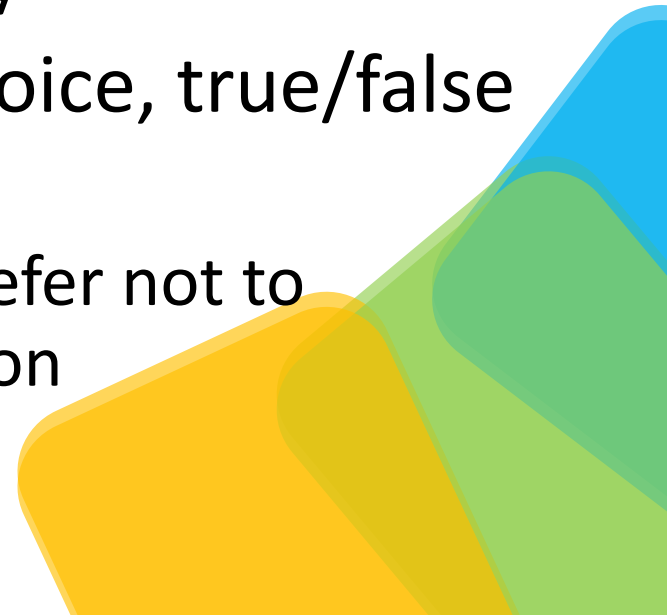
# Literature Review

- Numerous existing tools for assessing pregnancy and early parenthood-related knowledge and practices were identified
- Many of the tools used a multiple choice format
- Questions were simple, concise, and addressed one specific subject at a time
- Provided examples of overall design and questions



# Survey

- Based on Best Start modules
- Created by project team and content experts
  - Iterative process
  - Prioritization of key messages
  - Pilot tested for clarity, readability
- Contained a mix of multiple choice, true/false questions
  - Included “do not know” and “prefer not to answer” options for each question





# Question Development Process

- Three content areas with key messages for each were identified
- Ranking of the key messages
- Key messages developed into a question
- Consults with content experts

Key Message	Priority		
	Low	Med	High
Regular prenatal care that starts as early as possible in pregnancy is preferred. However, seeking out care at any point in pregnancy is beneficial for the health of pregnant women and their developing babies.	1	2	5
It is important that pregnant women have a health care provider they can both trust and feel comfortable asking questions and/or raising concerns with.	5	1	2
Preterm labour is labour occurring before 37 weeks.	2	4	2

# Survey



## Survey included:

- Knowledge questions (32)
  - Healthy Pregnancies (12)
    - Prenatal care, pre-term labour, pregnancies changes & comfort measures
  - Healthy Lifestyles (11)
    - Healthy eating, physical activity, emotional health, substance use, environmental exposures
  - Breastfeeding (9)
    - Techniques, benefits
- Program evaluation
- Perceived knowledge change
- Socio-demographics



# Survey

- Could be completed online or via telephone
- 25-30 minutes to complete survey

**How much weight should a pregnant women gain during her pregnancy?**

Select one answer only.

- 15-20 pounds
- 25-30 pounds
- 35-40 pounds
- It depends on her weight before pregnancy
- Do not know
- Prefer not to answer

**It is recommended that pregnant women take a multivitamin daily that contains folic acid because folic acid:**

Select one answer only.

- Prevents nausea
- Is important for the baby's skull, brain, and spine development
- Helps reduce muscle cramps
- Is important for the baby's lung development
- Do not know
- Prefer not to answer

**Select the foods that should be avoided during pregnancy:**

Check all that apply.

- Green peppers
- Raw cookie dough
- Apples
- Raw fish
- Raw alfalfa sprouts
- Cooked chicken breast

# Pilot Testing

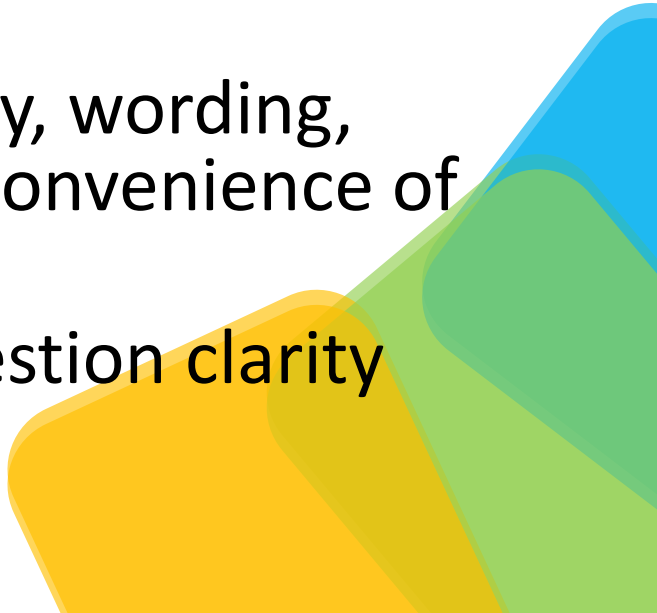
- Eligibility: English speaking women, enrolled in the health unit's prenatal program
- Recruitment for the pilot study took place during program registration by public health unit staff.
- Ethics approval granted



# Pilot Testing

- Nine participants
- 6 online, 3 via telephone

## Findings:

- Means to improve their knowledge about their pregnancy
  - Liked MC format, level of difficulty, wording, consistency with their program, convenience of online
  - Feedback on how to improve question clarity
- 

# Recruitment of Participants

## Eligibility Criteria:

- Ontario resident
- $\geq 20$  years old
- Comfortable communicating in English
- Registered for prenatal education program
- Planned to complete their program by May 31, 2014

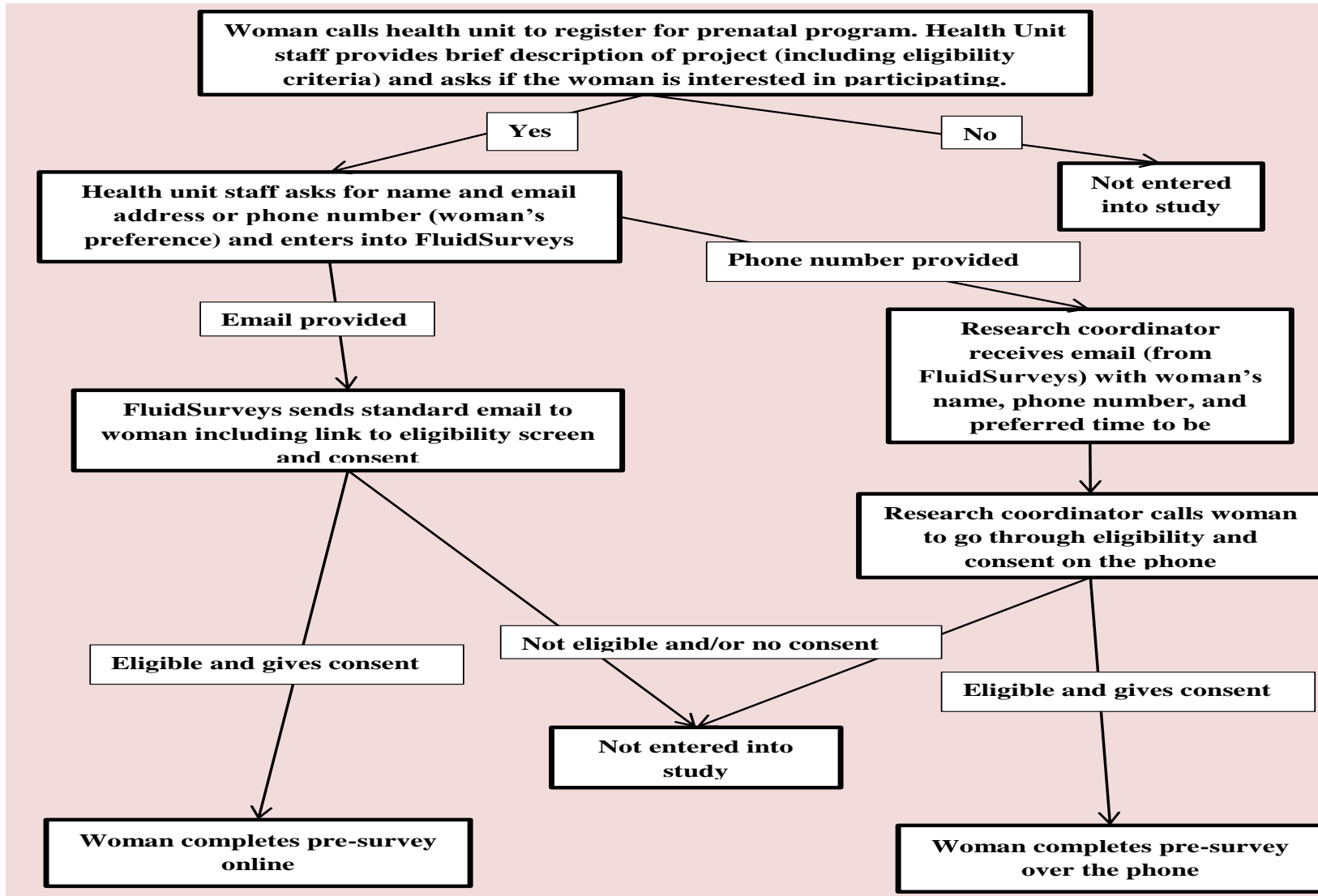


# Recruitment of Participants

Health units recruited proportional to their size

Health Unit	Target	
	In-person	Online
Chatham-Kent Public Health Unit	18-36	13-27
Halton Region Health Department	52-104	61-121
Leeds, Grenville and Lanark District Health Unit	18-36	
North Bay Parry Sounds District Health Unit	16-32	
Toronto Public Health		100-200
Wellington-Dufferin-Guelph Public Health	37-74	26-52
York Region Community and Health Services	59-118	
TOTAL	200-400	200-400

# Recruitment of Participants

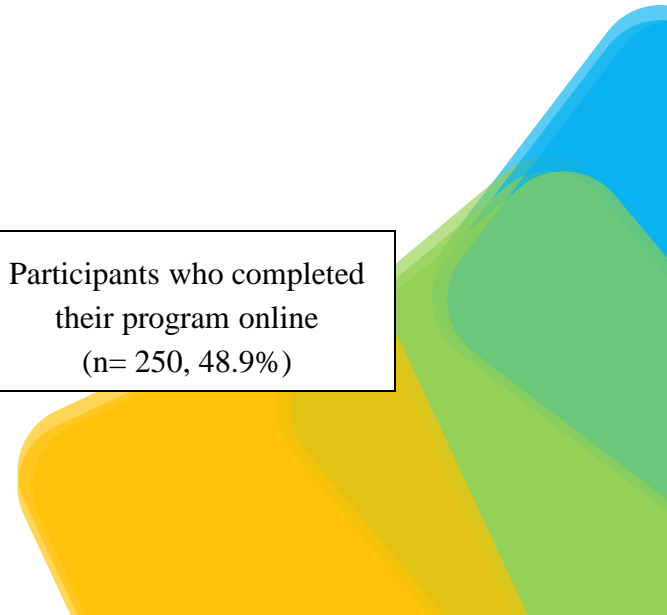
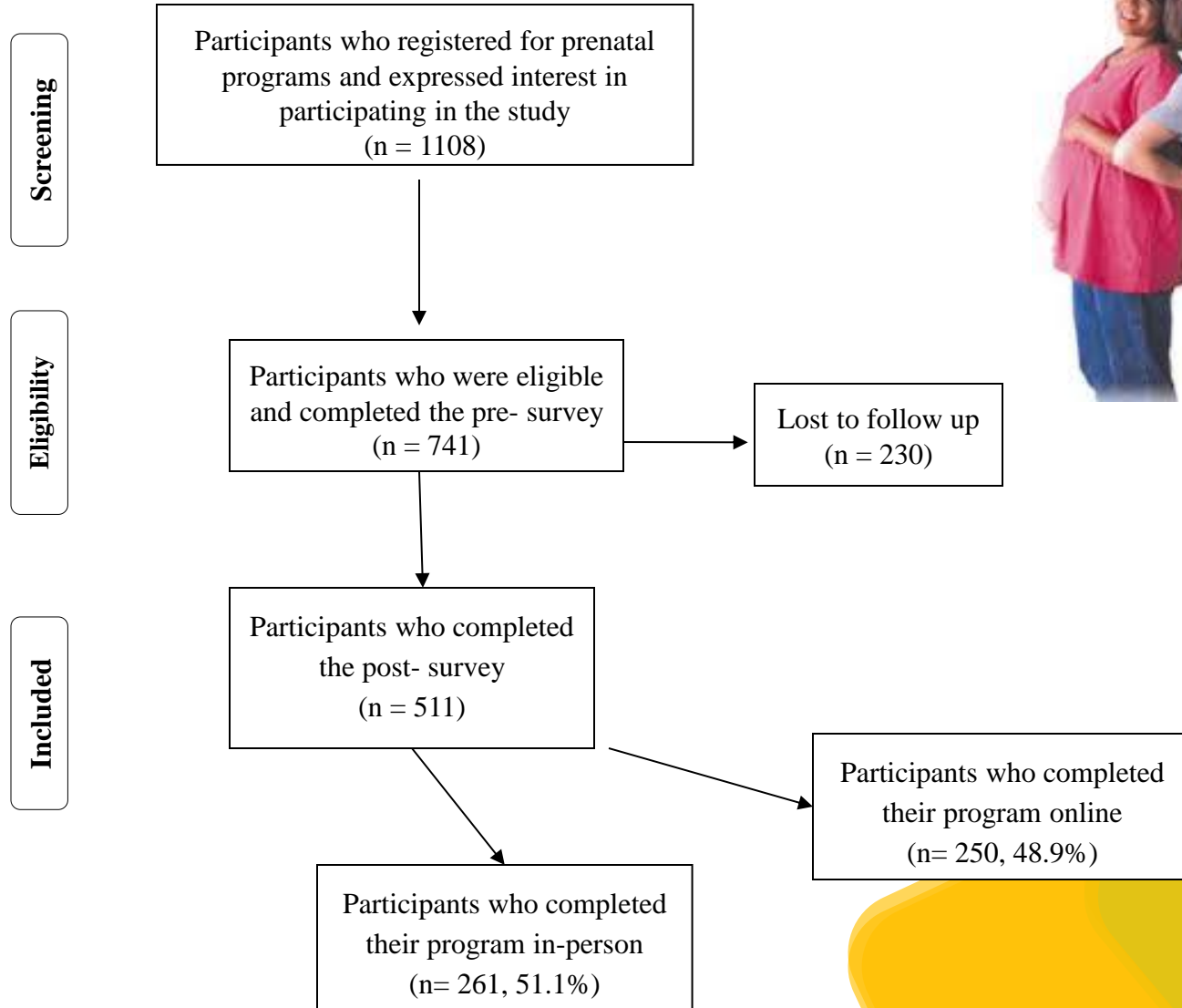




# RESULTS



# Study Sample



# Study Population Socio-demographics

## Age

- Range: 20 to 45 yrs old
- Mean: 30.2 yrs old

## Ethnicity

- 64% Caucasian
- 23% Asian
- 13% Other

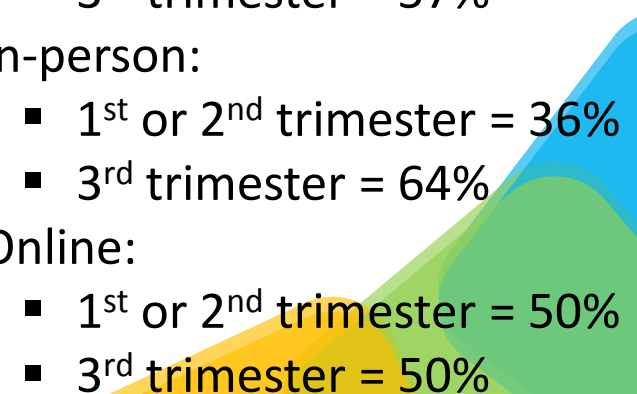
## Education

- 89% completed post-secondary school

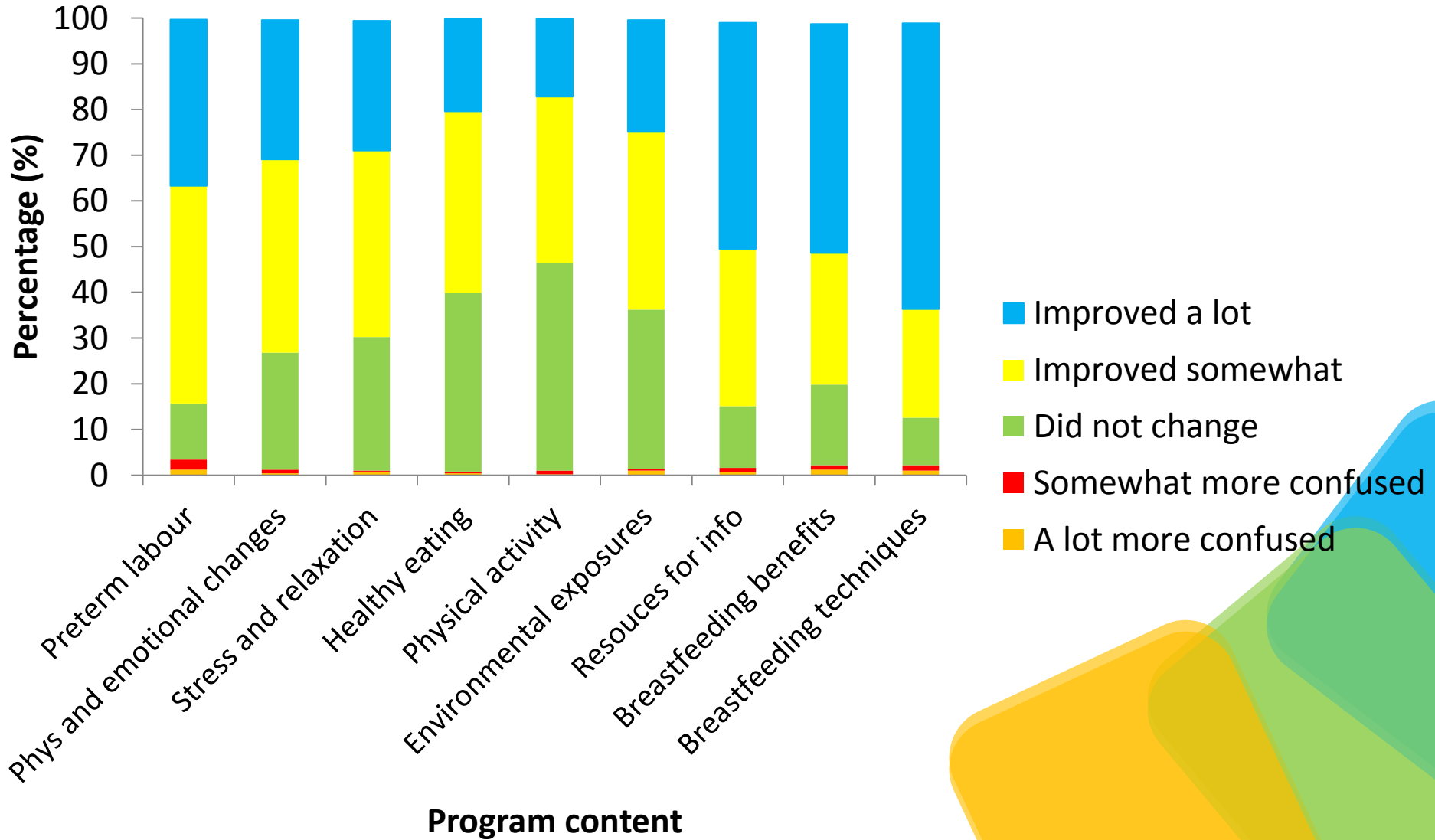
## First pregnancy

- 90% primiparous

## Trimester

- Overall:
    - 1<sup>st</sup> or 2<sup>nd</sup> trimester = 43%
    - 3<sup>rd</sup> trimester = 57%
  - In-person:
    - 1<sup>st</sup> or 2<sup>nd</sup> trimester = 36%
    - 3<sup>rd</sup> trimester = 64%
  - Online:
    - 1<sup>st</sup> or 2<sup>nd</sup> trimester = 50%
    - 3<sup>rd</sup> trimester = 50%
- 

# Self-reported knowledge change



# Measured Knowledge Change

Knowledge scores before and after program completion (n=511)

	Knowledge Score (%)		P-value
	Pre-program	Post-program	
Total Knowledge Score <sup>1</sup>	21 (65.6)	25 (78.1)	<0.001
Healthy Pregnancy <sup>2</sup>	9 (75.0)	10 (83.3)	<0.001
Healthy Living <sup>3</sup>	8 (72.7)	9 (81.8)	<0.001
Breastfeeding <sup>4</sup>	5 (50.5)	6 (66.7)	<0.001



<sup>1</sup>Maximum score = 32

<sup>2</sup>Maximum score = 12

<sup>3</sup>Maximum score = 11

<sup>4</sup>Maximum score = 9

# Measured Knowledge Change

	<u>Pre</u>	<u>Post</u>
	65.6%	78.1%
	68.8%	75.0%

Are the programs equally effective?



# Statistical Modeling

Program Type  Post-Knowledge Score \*

\* Adjusted for pre-knowledge score

## Variables assessed:

- ✓ Trimester
- ✓ First pregnancy
- ✓ Public health unit
- ✓ Education level
- ✓ Income
- ✓ Age
- ✓ Residency



# Online vs. In-person Results




There was no statistically significant difference in knowledge gains between in-person and online programs

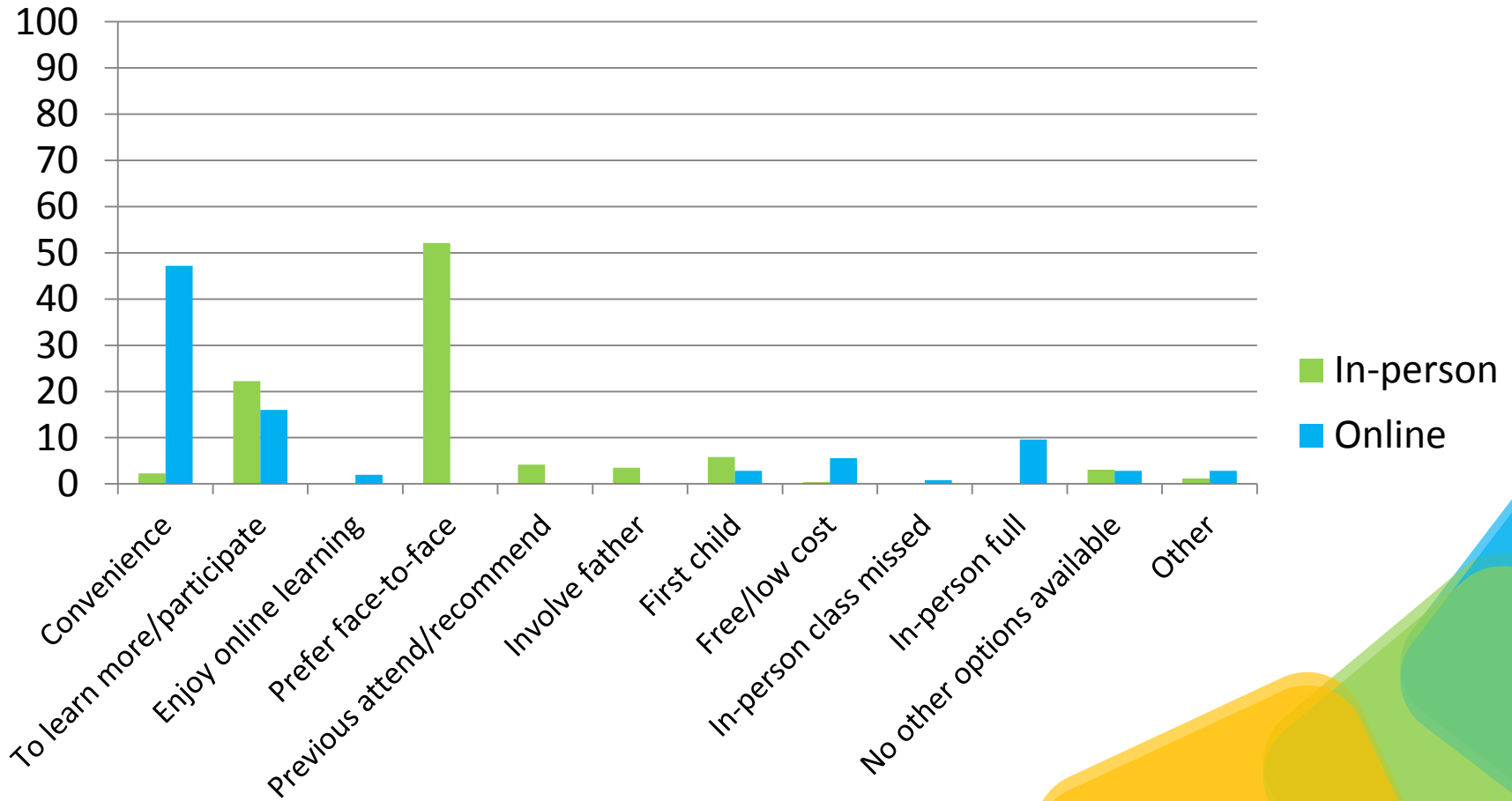




# Participant Preferences

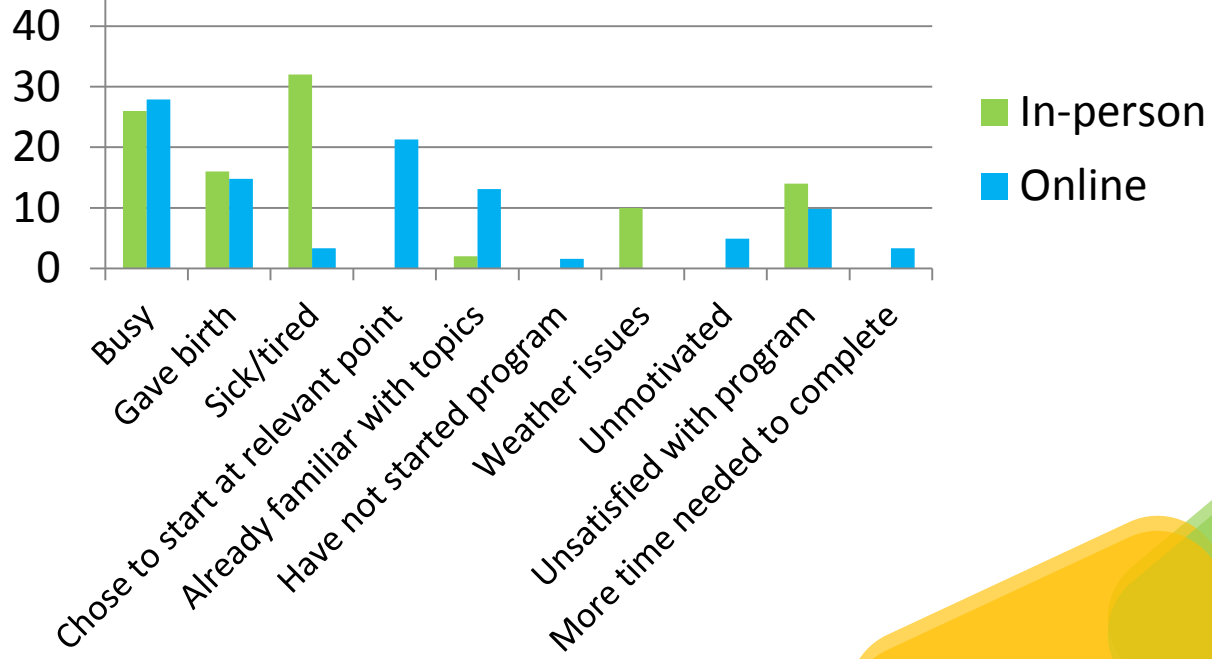
- When given the choice, the majority of women (60.1%) chose to take an in-person program over the online program.
  - Majority of primiparous women (62.4%) chose to take the in-person prenatal classes.
  - A higher proportion of women started their online prenatal program earlier in their pregnancy than women attending in-person classes.
- 

# Participant Preferences



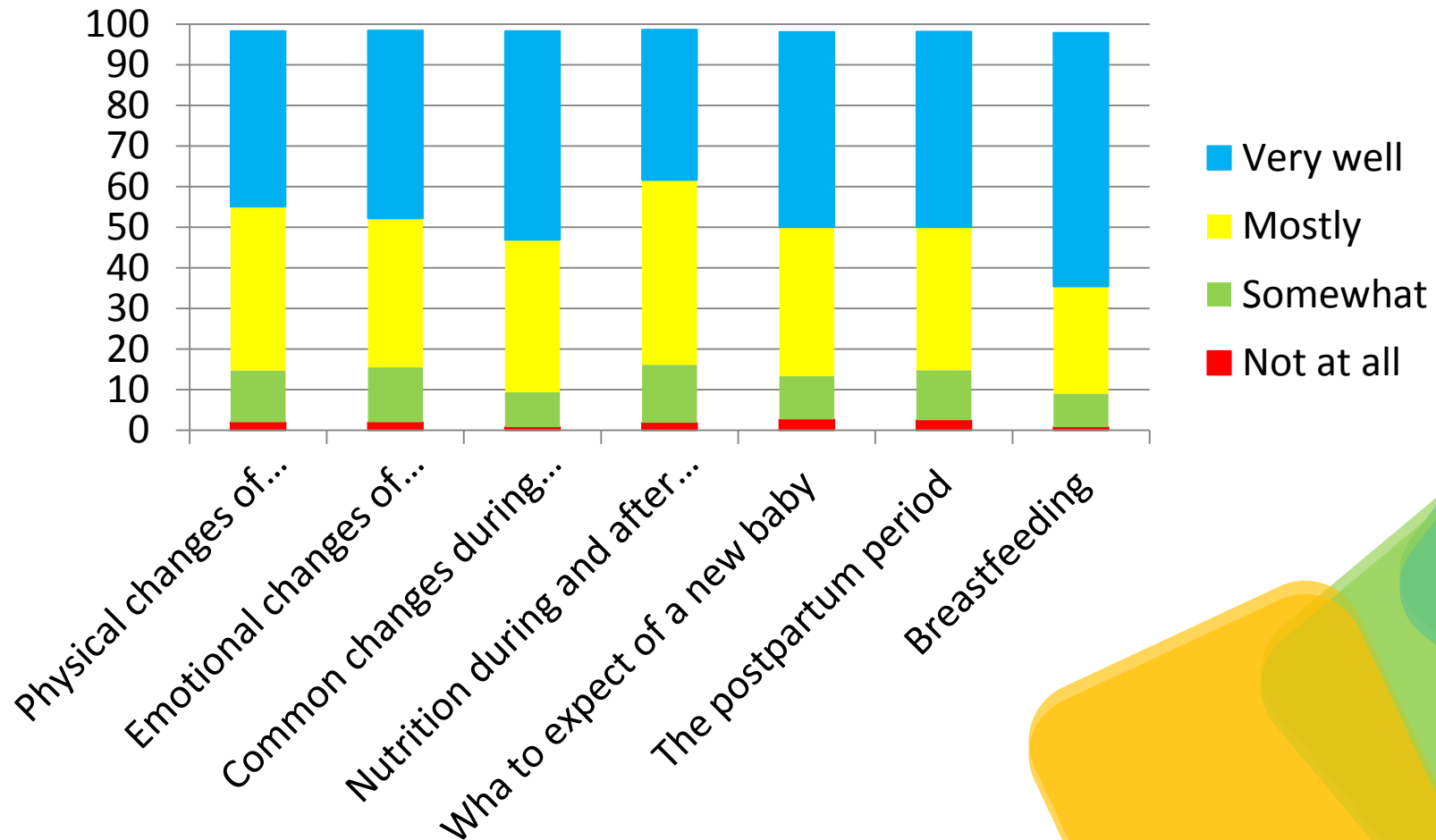
# Program Completion

	Frequency % (n)				
	None	Less than half	More than half, but not all	All of it	Prefer not to answer
<b>In-person</b>	0.4 (1)	3.1 (8)	15.7 (41)	80.5 (210)	0.4 (1)
<b>Online</b>	1.6 (4)	6.0 (15)	24.0 (60)	65.2 (163)	3.2 (8)



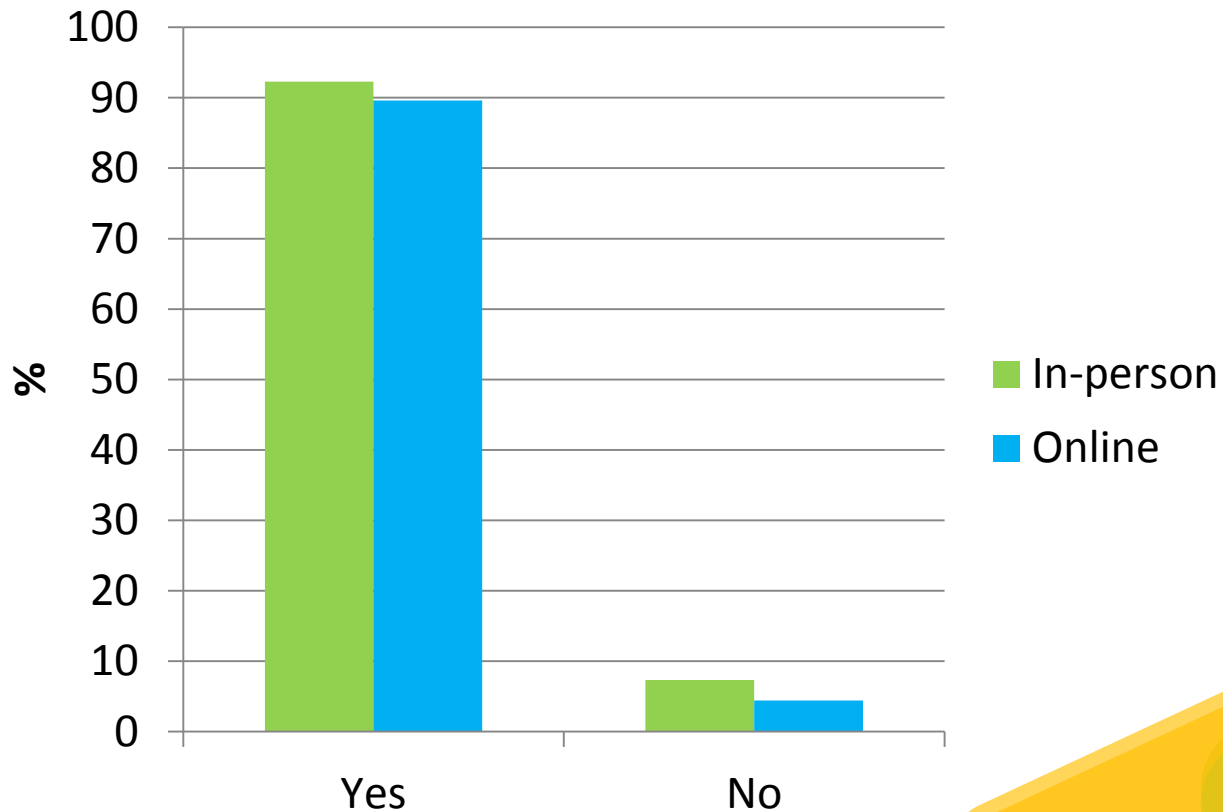
# Participants' satisfaction

Q. How well did your prenatal education program satisfy your questions on the following:



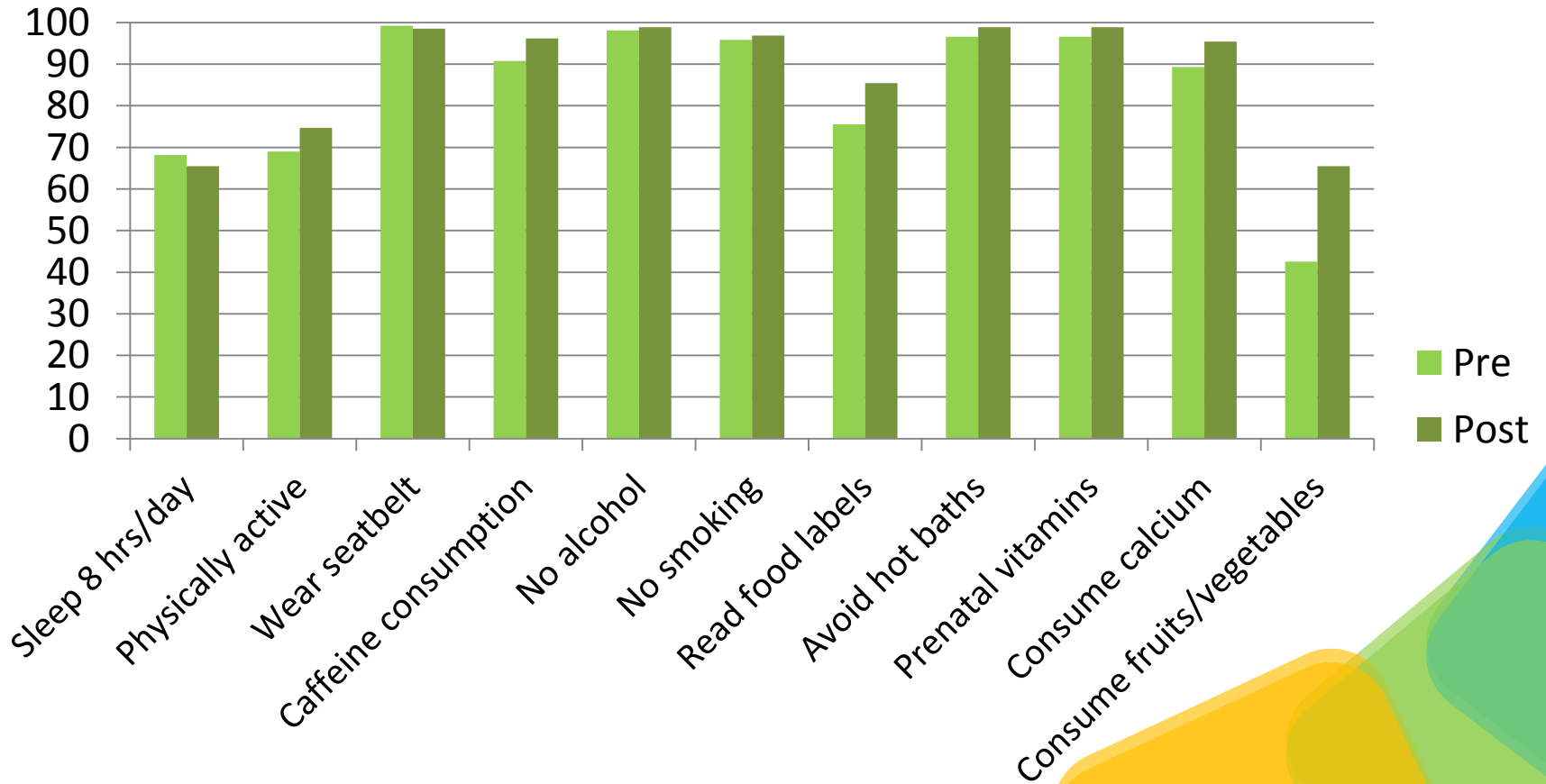
# Participant Satisfaction

Would you recommend this program to a friend?



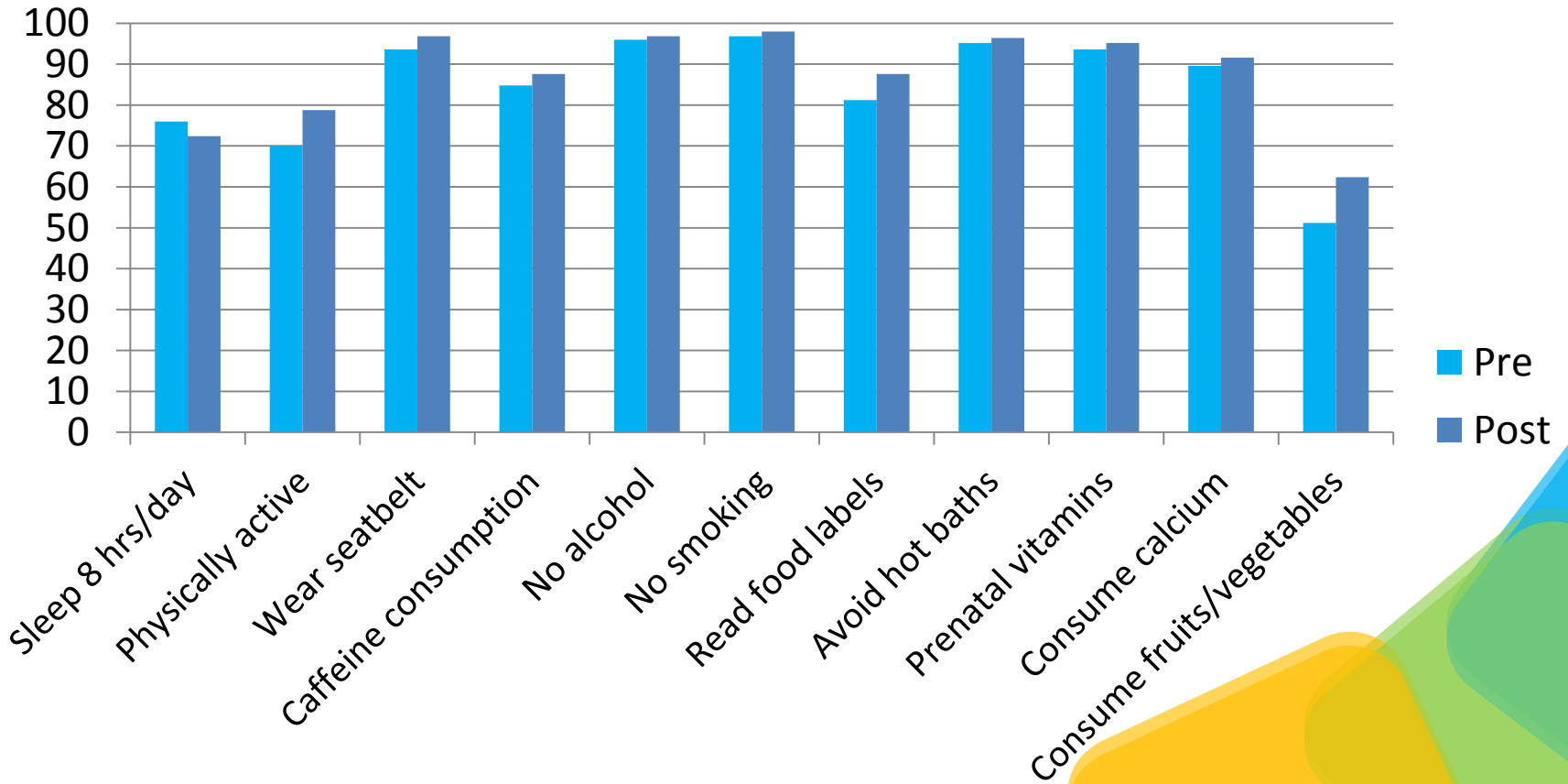
# Behaviour Change

## In-person

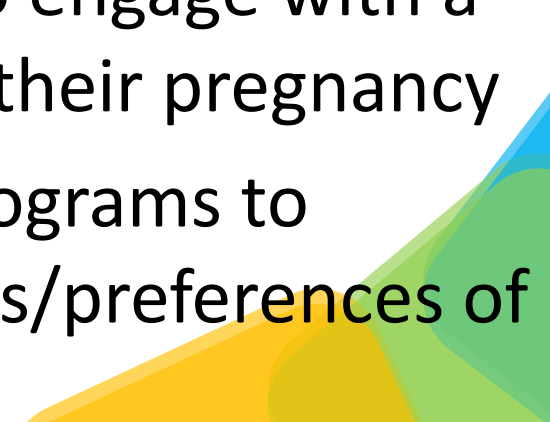


# Behaviour Change

Online



# Implications for Public Health Practice

- Enhance local capacity to evaluate knowledge gain in prenatal education programs
  - Online programs are an effective alternative for PHUs with limited resources
  - Online programs may be a way to engage with a diverse group of women early in their pregnancy
  - Prudent to offer both types of programs to account for varying learning styles/preferences of clients
- 



# Limitations

- First study of its kind
- Knowledge change entirely due to prenatal education program
- Varying populations, delivery styles and instructors
- Did not take into account partners/support persons



# Acknowledgements

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# Acknowledgements

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- Project team members
- Students – Katelyn Godin and Harshani Gangodawilage
- Dr. David Pearl – University of Guelph
- Participants



# Questions

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