

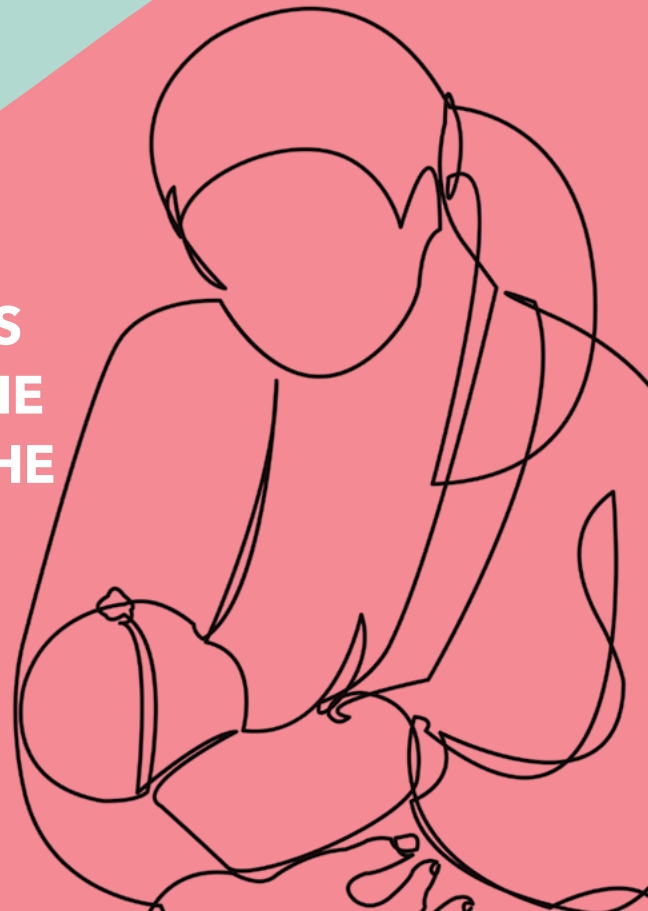
# PARKDALE INFANT NUTRITION SECURITY TARGETED EVALUATION PROJECT (PINSTEP)

2016-2021 Report

**PINSTEP** is a partnership between the University of Toronto and Parkdale Queen West Community Health Centre (PQWCHC).

The main purpose of PINSTEP is to investigate opportunities to increase access to postnatal lactation support through the **CANADA PRENATAL NUTRITION PROGRAM (CPNP)**.

**THIS REPORT PRESENTS  
THE HIGHLIGHTS OF THE  
FIRST FIVE YEARS OF THE  
PINSTEP PARTNERSHIP**



**PARKDALE  
QUEEN WEST**  
Community  
Health Centre



UNIVERSITY OF  
**TORONTO**

# PINSTEP REPORT 2016-2021

## Three community CPNP sites participated in the PINSTEP research:

### Parkdale Parents' Primary Prevention Project

(5Ps CPNP)

PQWCHC Satellite Site

Coordinator: Stacia Stewart

### Great Start Together (GST)

PQWCHC Queen West Site

Coordinator: Yi Man Ng



### Healthy Beginnings (HB)

The Stop Community Food Centre

Coordinator: Elle Richards (to 2018);

Christina Rousseau

The PINSTEP research started at the 5Ps CPNP, which had already established an Infant Feeding Program with support from The Sprott Foundation.

The Infant Feeding Program includes:

- Welcome package of infant care and breastfeeding supplies
- Free, in-home/virtual services from International Board Certified Lactation Consultants
- Double-electric breast pumps
- Food supports for families with infants under 6 months old

*PINSTEP was established in 2016 with the generous support of The Sprott Foundation and The Joanna and Brian Lawson Centre for Child Nutrition (University of Toronto). The PINSTEP funding supports graduate student researchers in the Department of Nutritional Sciences at the University of Toronto.*

## PINSTEP PERSONNEL

### LEADERSHIP



Dr. Deborah O'Connor,  
University of Toronto



Dr. Daniel Sellen,  
University of Toronto



Bronwyn Underhill,  
Parkdale Queen West CHC

### PhD STUDENT RESEARCHERS



Dr. Jane Francis

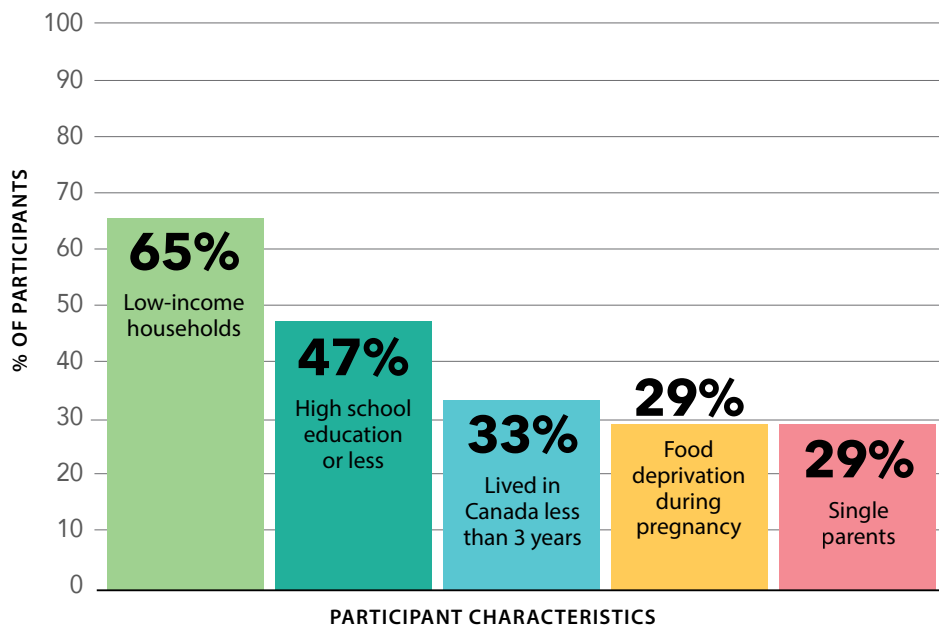


Dr. Alison Mildon

# PINSTEP RESEARCH STUDIES

## 5Ps CPNP Participant characteristics

FIGURE 1: Participant characteristics for 339 clients (2013-2016)



### KEY FINDINGS:

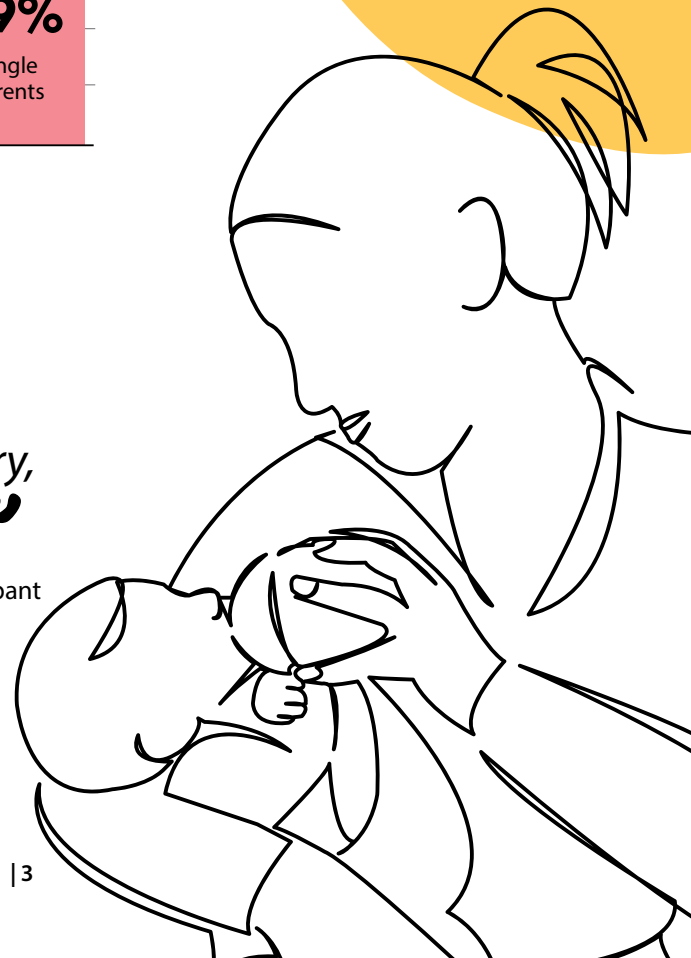
- 5Ps CPNP clients faced many life challenges (see figure 1)
- The average CPNP attendance during pregnancy was 9 weeks
- CPNP participation was higher among clients with lower incomes

### Data source:

Registration forms and attendance records for **339 clients**

*“You know, once it actually happened, I realized I know nothing about it [breastfeeding]...So one thing is the theory, another thing is actually practicing that.”*

—5Ps CPNP Participant



# INFANT FEEDING PROGRAM: Participant experiences

## KEY FINDINGS:

- Participants were motivated to breastfeed but felt unprepared for its challenges
- 5Ps Infant Feeding Program was valued and helpful

## What participants found most supportive:

- Skilled professionals
- In-home services
- Non-judgemental

## Data source:

- **46 total participants**  
(4 focus groups and  
21 individual interviews)

*“She [the lactation consultant] went twice to my place and she gave me a lot of work and tools to improve...I was really depressed... and so she came again. And very accessible over the phone, over e-mail, giving me all the information...”*

—5Ps CPNP Participant

*“That was so nice that it [lactation consultant] was coming to my house because I was too sore to move and she worked with my schedule and I felt really important to her, like she cares...”*

—5Ps CPNP Participant

# BREASTFEEDING CHALLENGES



## PHYSICAL

- Not enough milk
- Difficulty latching
- Engorgement
- Cracked nipples
- Mastitis



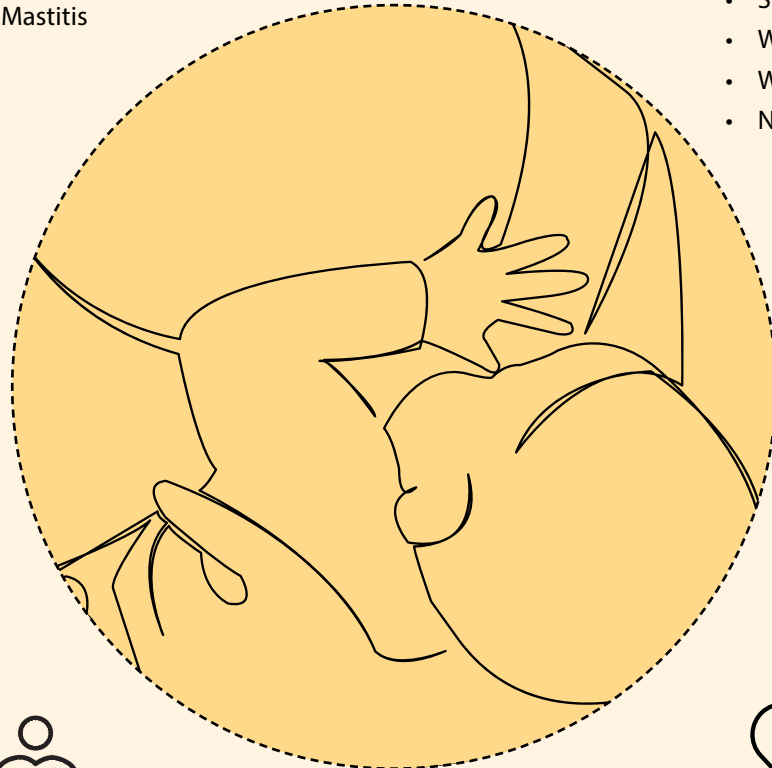
## PRACTICAL

- Back-to-work / back-to-school
- Time commitment
- Cost of professional lactation support
- Cost of quality breast pump



## EMOTIONAL

- Confusing information
- Stress and anxiety
- Worry about milk supply
- Worry about own nutrition
- No family or friends to help



## FREE ELECTRIC BREAST PUMPS

- Pumping milk allows others to help with feeding
- Increase amount of milk
- Relieve discomfort



## LACTATION SPECIALISTS

- Teach breastfeeding skills to help improve technique
- Answer questions
- Resolve pain



## IN-HOME SERVICES

- Convenient
- Flexible
- Free



## NON-JUDGEMENTAL SUPPORT

- Emotional support
- Encouragement
- Reassurance
- Praise

# INFANT FEEDING PROGRAM SUPPORT SOLUTIONS

CPNP participants face many breastfeeding challenges.

Providing community lactation support helps CPNP participants overcome breastfeeding challenges.

FIGURE 2: Providing community lactation support to help CPNP participants overcome breastfeeding challenges

# INFANT FEEDING PRACTICES: The first 6 months postpartum

## PARTICIPANTS WERE PRENATAL CLIENTS AT THREE CPNP SITES

**199**

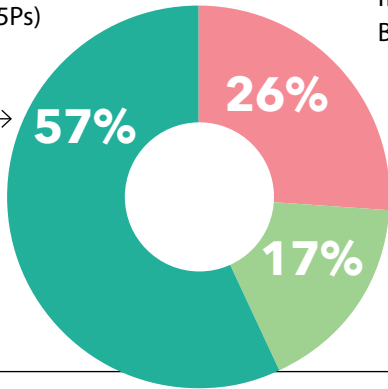
from Parkdale Parents' Primary Prevention Project (5Ps)

**91**

from Healthy Beginnings (HB)

**60**

from Great Start Together (GST)



<3 years in Canada **38%**

First baby **51%**

Household food insecurity **44%**

### Languages used for data collection:

- English
- Spanish
- Arabic
- American Sign Language
- Mandarin
- Portuguese
- French

## KEY FINDINGS:

### INFANT FEEDING RECOMMENDATIONS

#### Feed only breastmilk for the first 6 months

- planned to feed only breastmilk
- started breastfeeding
- continued for at least 6 months
- fed only breastmilk for 6 months

	5Ps	GST	HB
planned to feed only breastmilk	-	67%	83%
started breastfeeding	100%	100%	100%
continued for at least 6 months	84%	58%	78%
fed only breastmilk for 6 months	16%	11%	23%
Daily vitamin D drops for breastfed infants	76%	84%	75%
started solids by 6 months	84%	72%	77%
started solids early (before 5.5 months)	52%	44%	36%
most common first foods	INFANT CEREAL		FRUITS & VEGETABLES

**57%**



of infants received formula in hospital

**51%**

of participants used expressed (pumped) breastmilk, mainly in the first 2 weeks postpartum

# How the PINSTEP research is helping shape programming at the CPNP sites:

## FINDINGS

Lactation support was highly valued and helped clients with breastfeeding challenges

Participants needed more support with preparing for breastfeeding and getting lactation established

Many participants experienced household food insecurity

## PROGRAM CHANGES

The Infant Feeding Program is expanding to the GST and HB sites

Contact with a Lactation Consultant now starts in the prenatal period

Food supports are being increased at the three CPNP sites

## WHAT'S NEXT?

The COVID-19 pandemic affected the CPNP programs and the PINSTEP research. As the pandemic eases, new opportunities are emerging. We are planning the next phase of PINSTEP, which may include:

- Connections with CPNP sites outside Toronto
- Evaluation of the expanded Infant Feeding Program
- New community-based studies

There is much more to learn about how to increase access to postnatal lactation support through the CPNP!

*“That lady that told me about breastfeeding, it’s a person with a lot of experience...she knew everything that was happening to me at that point, without me saying anything...It was such a nice experience that I only breastfed my child...If I received that support with my first child it would’ve been like this, a really nice experience.”*

—5Ps CPNP Participant

# PINSTEP SCIENTIFIC PUBLICATIONS

These articles published in academic journals are free for anyone to access.

Francis J, Mildon A, Stewart S, Underhill B, Tarasuk V, Di Ruggiero E, Sellen D, O'Connor DL. [Vulnerable mothers' experiences breastfeeding with an enhanced community lactation support program](#). *Maternal and Child Nutrition* 2020;16:e12957.

Francis J, Mildon A, Stewart S, Underhill B, Tarasuk V, Di Ruggiero E, Sellen D, O'Connor DL. [Breastfeeding rates are high in a prenatal community support program targeting vulnerable women and offering enhanced postnatal lactation support: A prospective cohort study](#). *International Journal for Equity in Health* 2021;20:71.

Francis J, Ismail S, Mildon A, Stewart S, Underhill B, Tarasuk V, Di Ruggiero E, Kiss A, Sellen DW, O'Connor DL. [Characteristics of vulnerable women and their association with participation in a Canada Prenatal Nutrition Program site in Toronto](#). *Health Promotion and Chronic Disease Prevention in Canada*. 2021;41(12):413-422.

Mildon A, Francis J, Stewart S, Underhill B, Ng YM, Richards E, Rousseau C, Di Ruggiero E, Dennis C-L, Sellen D, O'Connor DL. [Effect on breastfeeding practices of providing in-home lactation support to vulnerable women through the Canada Prenatal Nutrition Program: protocol for a pre/post intervention study](#). *International Breastfeeding Journal* 2021;16:49.

Mildon A, Francis J, Stewart S, Underhill B, Ng YM, Rousseau C, Di Ruggiero E, Dennis C-L, O'Connor DL, Sellen, DW. [High levels of breastmilk feeding despite a low rate of exclusive breastfeeding for 6 months in a cohort of vulnerable women in Toronto, Canada](#). *Maternal and Child Nutrition* 2021; e13260.

Mildon A, Francis J, Stewart S, Underhill B, Ng YM, Rousseau C, Di Ruggiero E, Dennis C-L, Kiss A, O'Connor DL, Sellen, DW. [Associations between use of expressed human milk at two weeks postpartum and human milk feeding practices to six months: a prospective cohort study with vulnerable women in Toronto, Canada](#). *BMJ Open* 2022;12(6):e055830.

## ACKNOWLEDGEMENTS

We are very grateful to all the PINSTEP study participants who willingly shared their knowledge and experience with us. Thank you to the staff and partners of the 5Ps, GST and HB programs for welcoming the PINSTEP research.

We thank Yiqin Mao and Stephanie Zhang for their excellent work as research staff, and Samantha Ismail for providing valuable support to the study of 5Ps CPNP participant characteristics.

The PINSTEP research would not be possible without the generous support of our funders:



Doctoral Research Award  
(GSD-157928)  
to Alison Mildon

Ontario Graduate Scholarship  
to Jane Francis

Graduate student award  
to Jane Francis