Canadian Nurse-Family Partnership Education (CaNE):

Project Overview & Report of Key Findings

The CaNE pilot project was led by Middlesex-London Health Unit with McMaster University as the 3rd Party Evaluator

April 2019

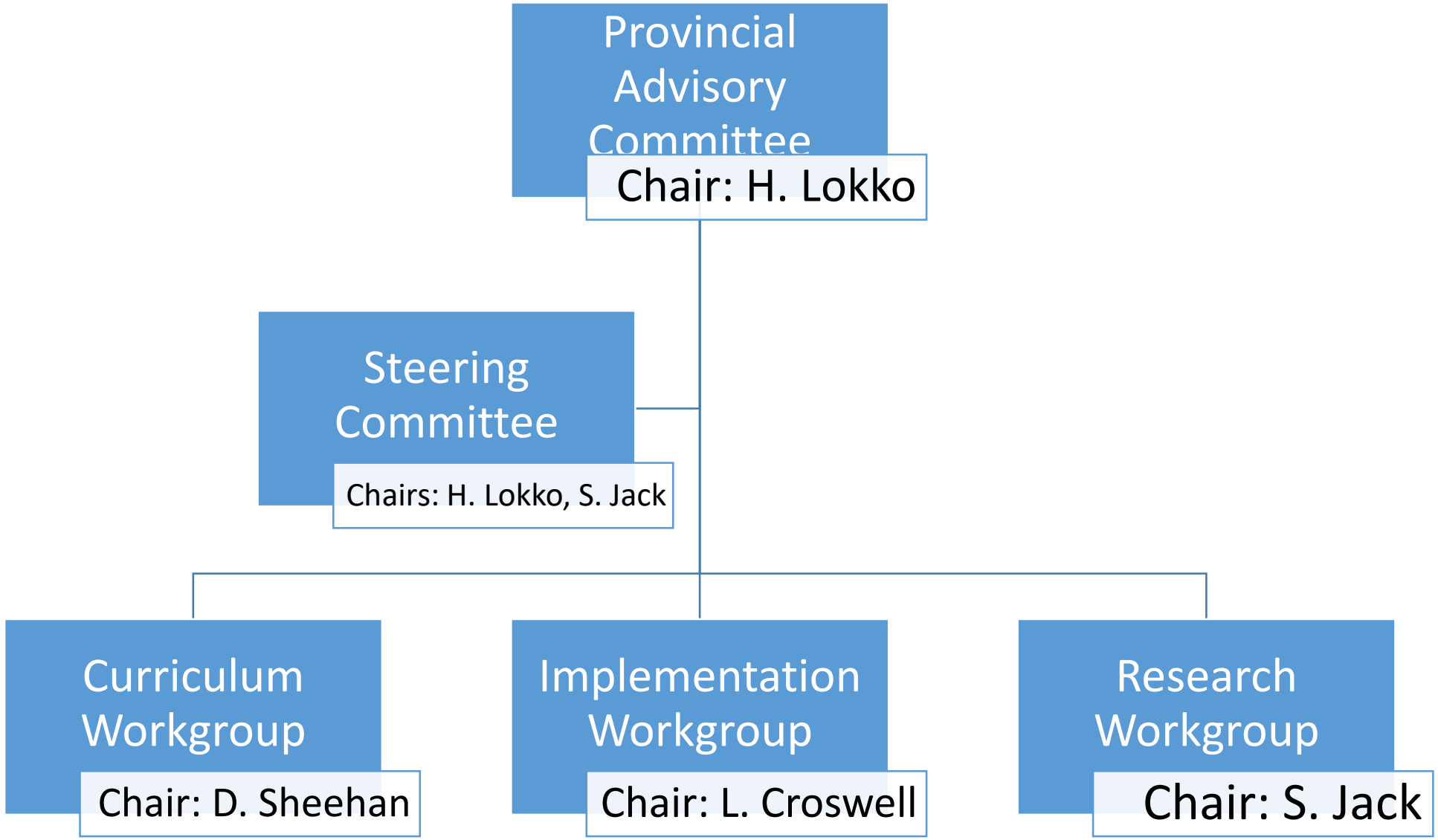
Canadian Nurse-Family Partnership Education (CaNE) Pilot Project Goals

1) ***Develop*** a Canadian model of Nurse-Family Partnership (NFP) education for public health nurses (PHNs) and supervisors;
2) ***Deliver*** this novel model of education to PHNs and supervisors hired to deliver the NFP program in participating Ontario public health units
3) ***Evaluate*** the acceptability of this model of education and to ***explore*** how this training prepared teams to implement NFP with fidelity to the program's core model elements.

NFP Adaptation & Evaluation in Canada

2008-2012	2012-present	2008-ongoing
• Pilot study to determine program acceptability & feasibility to deliver NFP through public health programming • Hamilton Public Health Services	• British Columbia Healthy Connections Project (BCHCP): Randomized controlled trial to determine NFP effectiveness • BCHCP Process evaluation to document NFP delivery & implementation in 5 BC Health Authorities • Healthy Foundations Study	• Adaptation and development of Canadian program materials • Visit-to-visit guidelines, assessment forms, facilitators, nurse instructions, implementation manuals, website • ***Nurse & supervisor core NFP education***

CaNE Project Governance



Curriculum Development

Curriculum Development

Existing NFP core education curricula

Family Nurse Partnership UK model

US Core Education

Consultations & Collaborations

US National Service Office – Education Manager/Instructional Designer

Prevention Research Centre- International NFP consultants, DANCE

British Columbia Provincial Coordinator

Canadian nurse theorists & nurse educators/researchers

E-learning/IT consults

Canadian NFP Public Health Nurses & Supervisors

Hamilton feasibility & acceptability study

BC Healthy Connections Process Evaluation

Canadian Core Nurse-Family Partnership Education

NFP Canada Program Model

Revised to reflect addition of recent NFP innovations & nursing theory

NFP Curriculum

NFP Foundations

- Online e-learning modules
- Independent or team-based study
- Supervisors –additional 3 modules

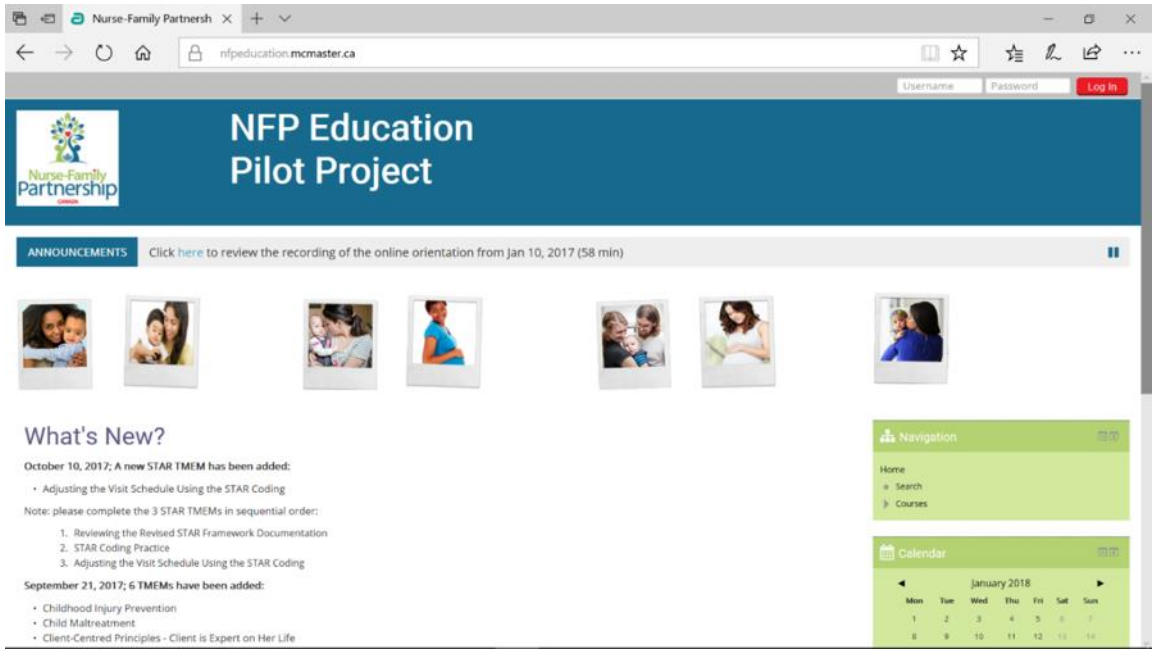
NFP Fundamentals

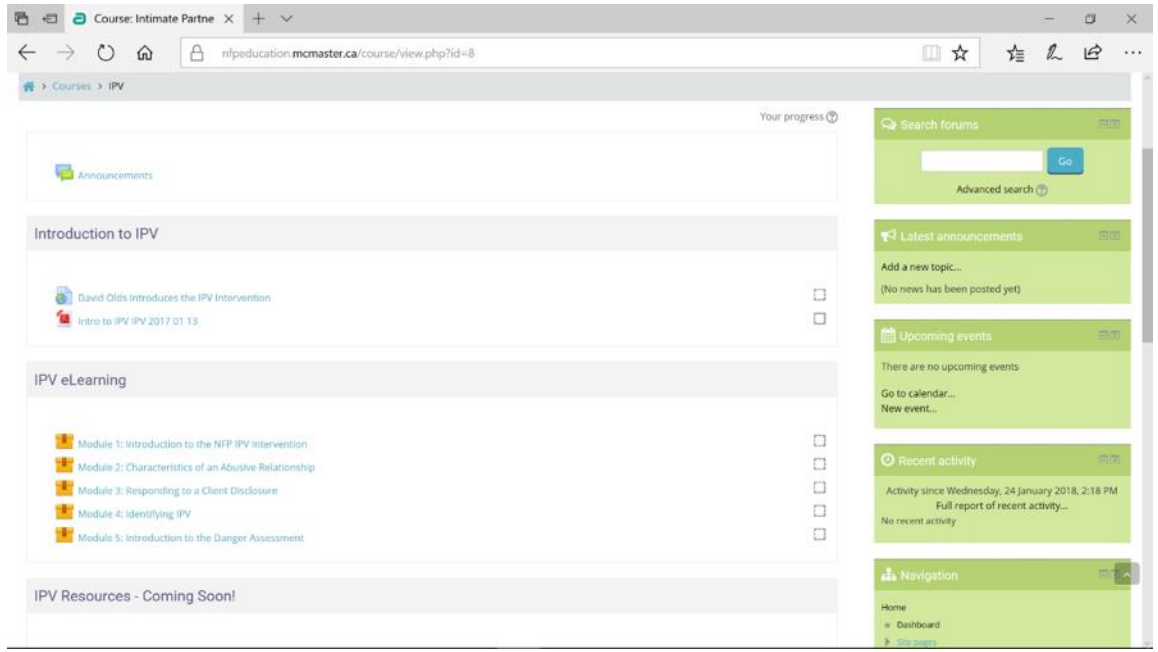
- 5 days in-person education (nurses & supervisors)
- 4 days in-person education (supervisors)

NFP Consolidation and Integration

- Team meeting education modules
- Job shadowing
- IPV system navigation & in-person workshop
- ASQ/Keys to Caregiving/NCAST

E-Learning Platform (Moodle)





Implementation

NFP Delivery through Public Health

Participating Health Units	Toronto Public Health
	Middlesex London Health Unit
	York Region Public Health
	Niagara Region
Client Eligibility	Young, first-time mother
	Experiencing social and economic disadvantage
	Referred early in pregnancy, before 28 weeks gestation

NFP Core Model Elements (CME)

Element 1: Client participants voluntarily in the Nurse-Family Partnership (NFP) program

Element 2: Client is a first-time mother

Element 3: Client meets socioeconomic disadvantage criteria at intake

Element 4: Client is enrolled in the program early in her pregnancy and receives her first home visit no later than the 28th week of pregnancy

Element 5: Each client is assigned an identified NFP nurse who establishes a therapeutic relationship through individual NFP home visits

Element 6: Client is visited face-to-face in the home, or occasionally in another setting (mutually determined by the NFP nurse and client), when this is not possible

Element 7: Client is visited throughout her pregnancy and the first two years of her child's life in accordance with the current standard NFP visit schedule or an alternative visit schedule agreed upon between the client and nurse

Element 8: NFP nurses and supervisors are registered nurses or registered nurse-midwives with a minimum of a baccalaureate /bachelor's degree.

Element 9: NFP nurses and supervisors develop the core NFP competencies by completing the required NFP educational curricula and participating in on-going learning activities.

Element 10: NFP nurses, using professional knowledge, judgment and skill, utilize the Visit-to-Visit Guidelines; individualizing them to the strengths & risks of each family, and apportioning time appropriately across the six program domains.

Element 11: NFP nurses and supervisors apply the theoretical framework that underpins the program (self-efficacy, human ecology, and attachment theories) to guide their clinical work and achievement of the three NFP goals.

Element 12: Each NFP team has an assigned NFP Supervisor who leads and manages the team and provides nurses with regular reflective supervision

Element 13: NFP teams, implementing agencies, and national units collect/and utilize data to: guide program implementation, inform continuous quality improvement, demonstrate program fidelity, assess indicative client outcomes, and guide clinical practice/reflective supervision.

Element 14: High quality NFP implementation is developed and sustained through national and local organized support

Evaluation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Primary Research Question

Following completion of the Canadian Nurse-Family Partnership education program, are Ontario public health nurses and supervisors able to implement and deliver the NFP program with fidelity to the core model elements, with a specific focus on the following fidelity indicators:

1) public health nurse and supervisor caseloads;
2) duration of the program;
3) service dosage to the program;
4) content of home visits; and
5) client eligibility?

Secondary Research Questions

What are NFP public health nurses', supervisors' and NFP educators' perceptions and experiences of the content and delivery methods of the NFP Canada model of education?

What is the overall level of acceptability of the NFP model of education to NFP public health nurses and supervisors?

How can public health nurse and supervisor knowledge and competencies be measured to demonstrate effectiveness of the education models in improving knowledge, skills and attitudes?

What tools can be used to effectively assess professional performance to determine if NFP public health nurses integrate new knowledge and skills into practice?

Methods

Design:

Mixed methods case study evaluation

Sites:

York, Middlesex-London, Toronto, Niagara (n=4)

Participants:

Total n=22

- Educators (n=2)
- Supervisors (n=4)
- Public Health Nurses (n=16)

Methods

Data Sources:

- Interviews
  - Focus Groups with PHNs (2 x 3 sites) n=6
  - 1:1 Interviews with PHNs (n=16), Supervisors (n=9), NFP Canada Educators (n=4)
- Evaluation forms from online & in-person training (n=21)
- Implementation data (being tracked by participating sites) n=311 NFP clients (3 sites Jan 1 2017-Sept 30, 2018; 1 site April 25 2018-Sept 30 2018)
- Supervisor narrative summaries
- Demographics questionnaire

Key Findings: Implementation and Delivery of NFP with Fidelity to Core Model Elements

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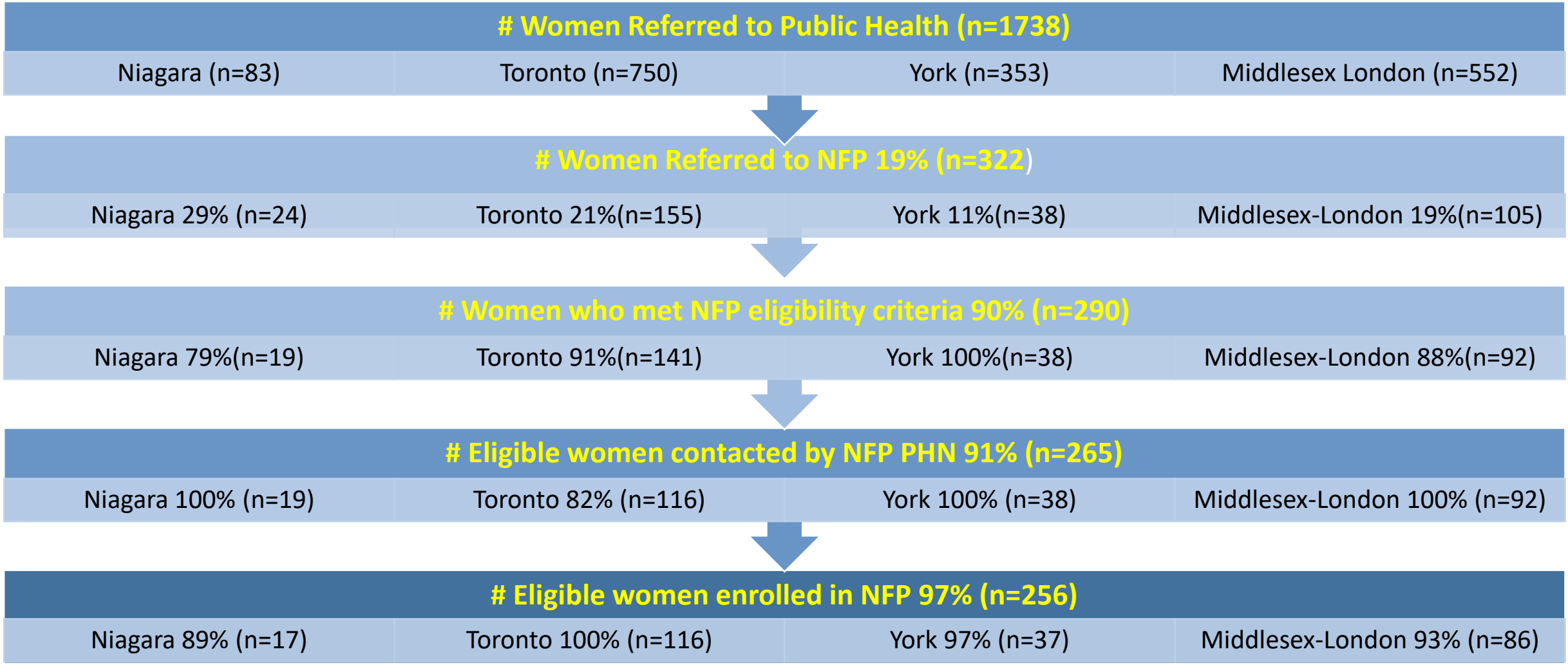
Sample Description

	NFP PHNs (n=16)	NFP Supervisors (n=4)	NFP Canada Educators (n=2)
Age (mean years; range)	43.4 (25-64)	47.25 (38-59)	49.0 (34-64)
Nursing experience (mean years employed; range)	19.1(1.5-33)	23.5(16-32)	26.0(10-42)
Public health experience (mean years in public health; range)	15.4(2.5-28)	17.8(14-30)	17.5(10-25)
Home visiting experience (mean years home visiting experience; range)	13.4(3-28)	13.5(3-20)	14.5(10-19)



NFP Referral and Enrollment Patterns

NFP Client Retention

Over a 21-month period (January 4, 2017-September 30, 2018)

- Of the 245 clients who had one or more home visits
  - 71% remained active in the program at time of data submission
  - 28% were discharged at a later date
  - 0.8% were “re-activated” into the program

CME 1: Client participates voluntarily in the NFP program

- During the first home visit encounter, all NFP PHNs are required to discuss the voluntary nature of the program and seek the woman's permission to enroll her in the program.

- Based on program summary reports from supervisors, the majority of women (97%) contacted by an NFP PHN agreed to be enrolled in the program.

CME 2: Client is a first-time mother

- Overall, 99.67% (305/306 records) of pregnant women enrolled were identified as first-time mothers (first live birth).

- Only one participant was listed as not a first-time time mother; data were missing on five participants.

CME 3: Client meets socioeconomic disadvantage criteria at intake

Client Age at Time of NFP Enrollment

Public Health Unit	Mean age in years (range)
Provincial	**18 years**
Toronto	18 (14-22)
York	20 (18-24)
Middlesex-London	16 (14-26)
Niagara	18 (14-25)

CME 4: Client is enrolled in the program early in her pregnancy and receives her first home visit no later than 28 weeks gestation

91.8% of eligible women were enrolled no later than the 28th week of pregnancy

Enrollment Period	% women enrolled (n)
Enrolled ≤ 16 weeks gestation	35.1% (n=94)
Enrolled between 17-25 weeks	36.2% (n=97)
Enrolled between 26-28 weeks	20.5% (n=55)
Enrolled ≥ 28 weeks	8.2% (n=22)

Sources of Client Referrals

Referral Source	% women referred from source (n)
Public health services (e.g. Intake phone line)	21.2% (n=66)
Community partners	18.3% (n=57)
Self-referrals	12.5% (n=39)
Doctor's offices	10.6% (n=33)
Children's Aid Society	7.1% (n=22)
No referral data available	30.2% (n=94)

CME 5: Each client is assigned an NFP nurse who establishes a therapeutic relationship through individual home visits

- Consensus that frequency of home visits and length of program provide PHNs with time & flexibility to establish and nurture a therapeutic relationship with the client, particularly with those who have histories of trauma.

If we weren't seeing them weekly or biweekly and we were just doing the monthly like HBHC did, or sometimes in 6 weeks, you don't have that chance to really support them and provide the best follow up and support that you need to give them. But you have that chance here in the NFP program. So I think definitely the frequency of seeing the client helps build the relationship to make this program more effective. **[NFP PHN]**

CME 6: Client is visited face-to-face in the home or occasionally in another setting

Encounter Type	% (no. visits)
Completed home visits	84.5% (n=2,280)
Completed alternate visits	8.9% (n=297)
Attempted home visits	1.9% (n=65)
Scheduled home visit, cancelled by client	4.1% (n=138)
Scheduled home visit, cancelled by PHN	0.5% (n=18)

CME 6: Client is visited face-to-face in the home or occasionally in another setting

Location of Home Visit	% (no. visits)
Client's home	70.7%% (n=1,996)
Family/friend's home	4.9% (n=137)
Public health unit	3.3% (n=95)
Doctor's office/clinic	1.6% (n=49)
Other	18.4% (n=523)

CME 6: Client is visited face-to-face in the home or occasionally in another setting

Alternate Visit Type	% (no. contacts)
Telephone visit with client	48.5% (n=144)
Texting with client	19.7% (n=59)
Case conference	11% (n=33)
Attending appointment with client	7.4%% (n=22)
Other	9.7% (n=29)
Unknown	3.4% (n=10)

CME 7: Client is visited throughout her pregnancy and the first two years of her child's life in accordance with current NFP visit schedule

Using data available, we were able to estimate that 60% of clients continued with the program into the infancy phase

Program Phase	Mean # Home Visits (range)
Pregnancy	7.40 (1-35)
Infancy	11.6 (1-41)
Toddlerhood	N/A

CME 7: Client is visited throughout her pregnancy and the first two years of her child's life in accordance with current NFP visit schedule

Reasons for Discharge	% (no. clients)
Client-initiated discharge	37.7% (n=26)
Lost to follow-up	17.4% (n=12)
Client moved	29.0% (n=20)
Pregnancy loss/infant death	5.8% (n=4)
PHN unable to provide NFP	1.4% (n=1)
Client lost custody of the child	2.9% (n=2)
No reason provided or data missing	5.8% (n=4)

CME 8: NFP nurses/supervisors are registered nurses with a minimum of a bachelor's degree

100% of NFP PHNs and supervisor held, as a minimum, a bachelor's degree in nursing

CME 9: NFP nurses/supervisors develop core NFP competencies through completion of core NFP education

Cohort/Timeline	NFP Foundations	NFP Fundamentals
Cohort 1	January-February 2017 (n=3 supervisors; n=11 PHNs) December 2017-February 2018 (n=1 PHN)	February 2017 (n=3 supervisors; n=12 PHNs)
Cohort 2	March-April 2018 (n=1 supervisor; n=5 PHNs)	April 2018 (n=1 supervisor; n=5 PHNs)

CME 10: NFP nurses…apportion time appropriately across the six program domains

	Distinct visits (n)	Personal Health (%)	Environmental Health (%)	Life Course Development (%)	Maternal Role (%)	Family & Friends (%)
PREGNANCY						
Benchmark		35-40%	5-7%	10-15%	23-25%	10-15%
Total/Mean	1,433	41%	13%	12%	21%	13%
INFANCY						
Benchmark		14-20%	7-10%	10-15%	45-50%	10-15%
Total/Mean	1,375	23%	9%	13%	43%	12%
TODDLERHOOD						
Benchmark		10-15%	7-10%	18-20%	45-50%	10-15%
Total/Mean	10	16%	12%	19%	42%	11%

- ***Deeper understanding*** of theoretical principles.
- PHNs ***better positioned to apply theoretical principles*** in home visits, to describe practice decisions, and explain to clients rationale for practice activities
- ***Self-efficacy theory***- transformed how PHNs approached, supported and worked with women
- ***Uptake of critical caring theory***- complemented SDOH work & provided language to describe PHNs' form of caring & approach to social justice

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CME 11: NFP nurses & supervisors apply the theoretical framework that underpins the program to guide their clinical work….

Core Model Elements 12, 13, 14

Each Team has assigned NFP supervisor	NFP Teams collect & utilize data to guide implementation, CQI etc	High quality NFP implementation is developed and sustained nationally & locally
• All 4 NFP teams had a designated NFP supervisor • No data about supervision collected	• Each team collected program data • Some data irregularities (different interpretations of codes) • Database development required to collect data so it can be used to meet all program functions.	• High quality local implementation support provided through newly created Ontario NFP Practice Lead position • Nationally – Canadian NFP Collaboration examining governance issues

Acceptability of Canadian model of NFP Education: Key Findings

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Online platform

- User-friendly
- Easy to navigate
- Provided flexibility
- Meaningful organization
- Supportive & engaging learning features
- *“I liked the fact that a lot of it built on each ...* ***every chapter built on another piece”***

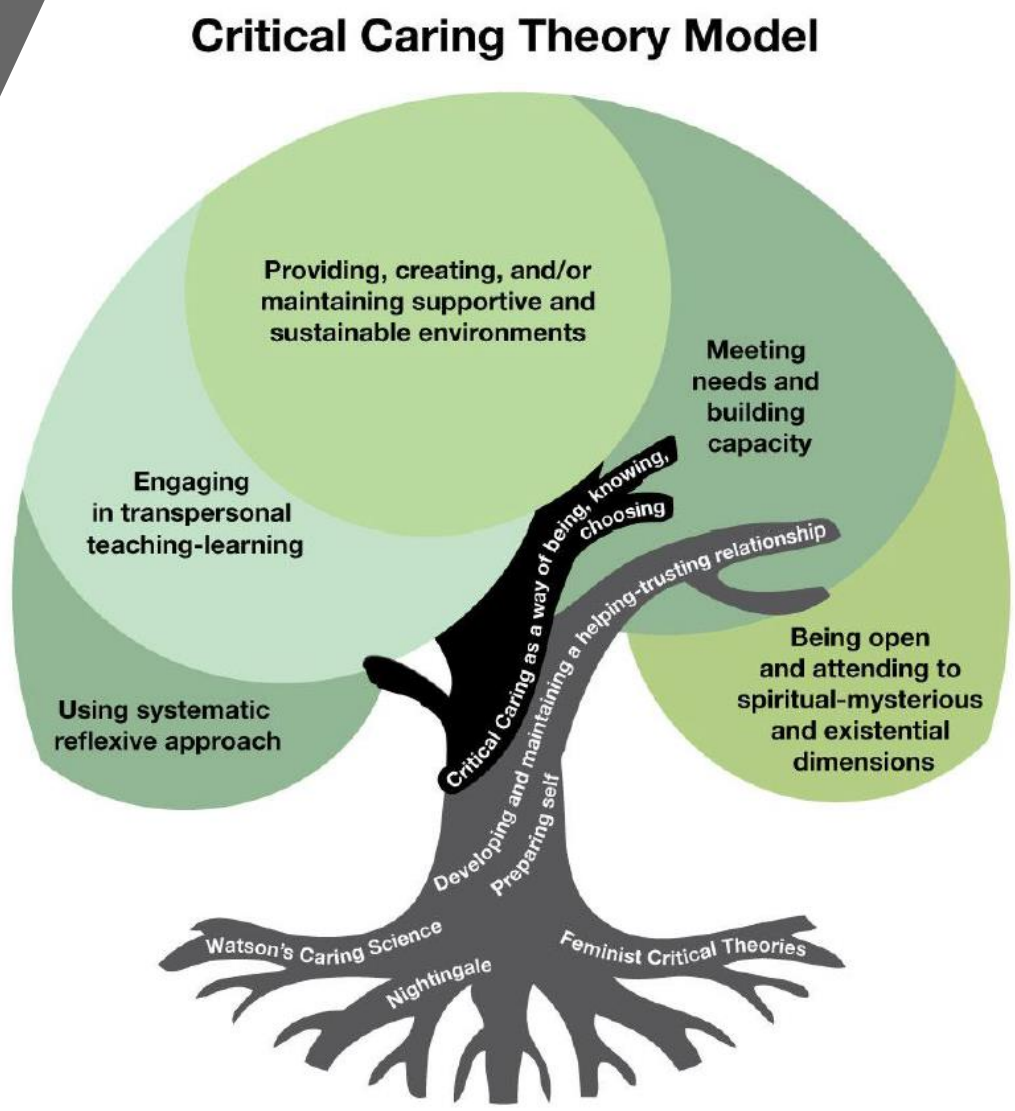
Area for improvement

- not fully *“truly online”*

NFP Foundations – Delivery method & Content Organization

NFP Foundations - Content

- *"Set the stage"*
- Provided learners with language to:
  - describe the professional practice of nurse home visitors
  - articulate the components of home visiting they intrinsically valued
- Theory explicitly linked to elements of the NFP program model
- Challenge for learners: Awareness of a form/tool, yet lack of understanding on "how to" use…



Falk Raphael & Betker (2015)

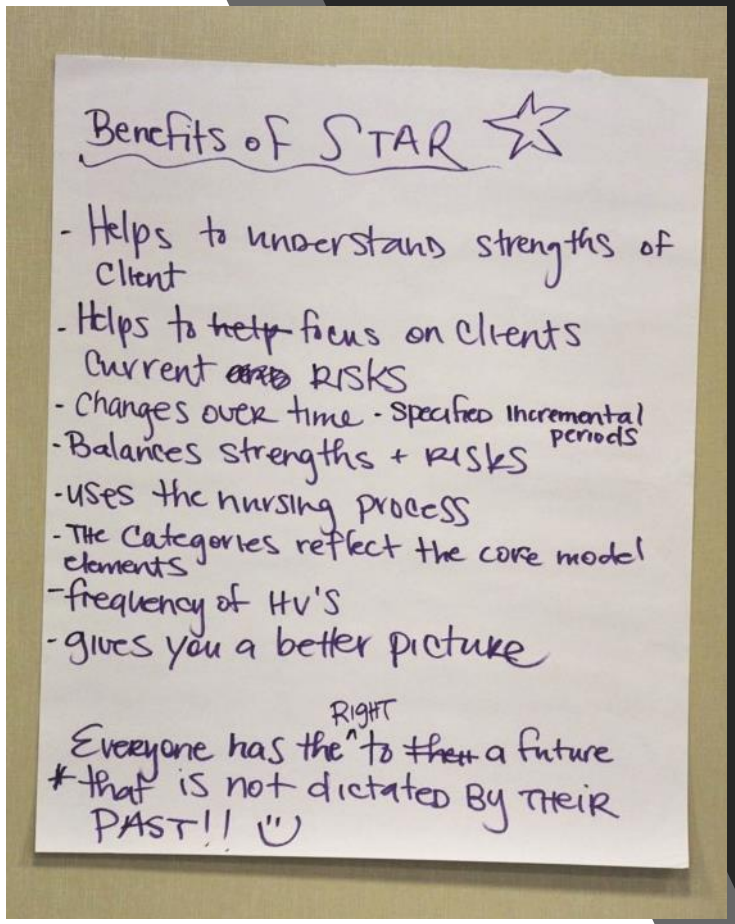
NFP Fundamentals: Delivery

“I know good teaching and it was really well done. Like very adult centered, beautifully facilitated. Like a nice combination of technology use and, and discussion and things like that, so. It was really good. It was really good education.”

NFP Fundamentals: Delivery

It was such a benefit to be able to meet with the other public health units going through this training to be able to draw on everyone's experience in home visiting. Because these nurses bring with them a wealth of experience, right? And knowledge that fits very nicely with implementation of NFP. So the training enhances our knowledge and skills but we can really leverage them too, to learn from each other even before we're implementing NFP.

NFP Fundamentals - Content

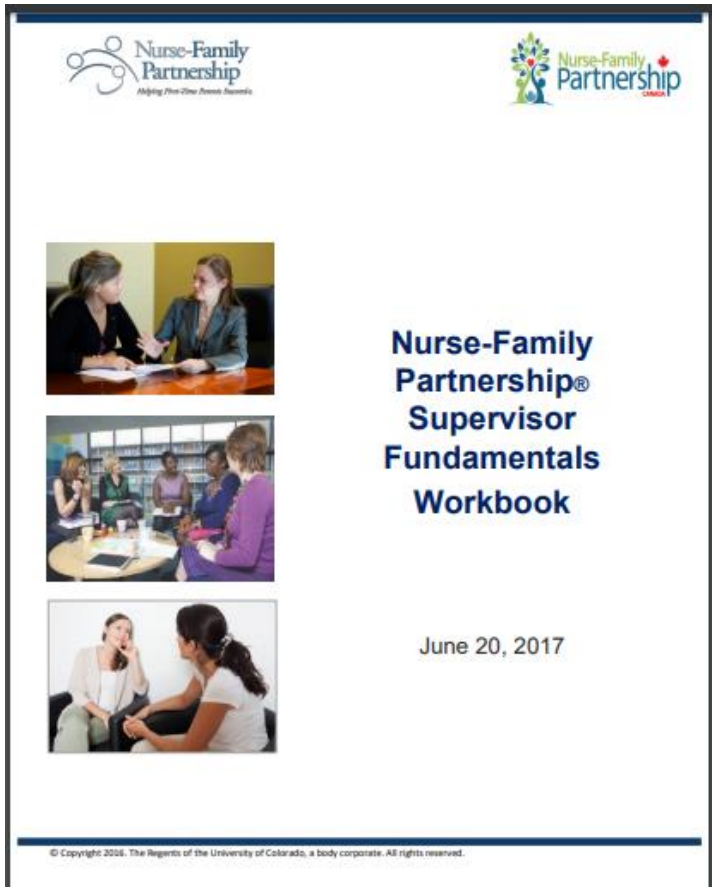


- Highly value new knowledge/skills: TVIC, IPV
- Most engaged with interactive learning strategies
- Process evaluation format allowed for using emerging findings from Cohort 1 to enhance Cohort 2 sessions

IPV Education – Delivery and content

“It's an incredible piece of work for them because they really do see the true value in talking about the relationships in such an intense way...there's something about the content of the wheels that actually is very logical and I think it's the calmness that the nurse presents it in that allows the client the time to think and reflect on what's going on.”

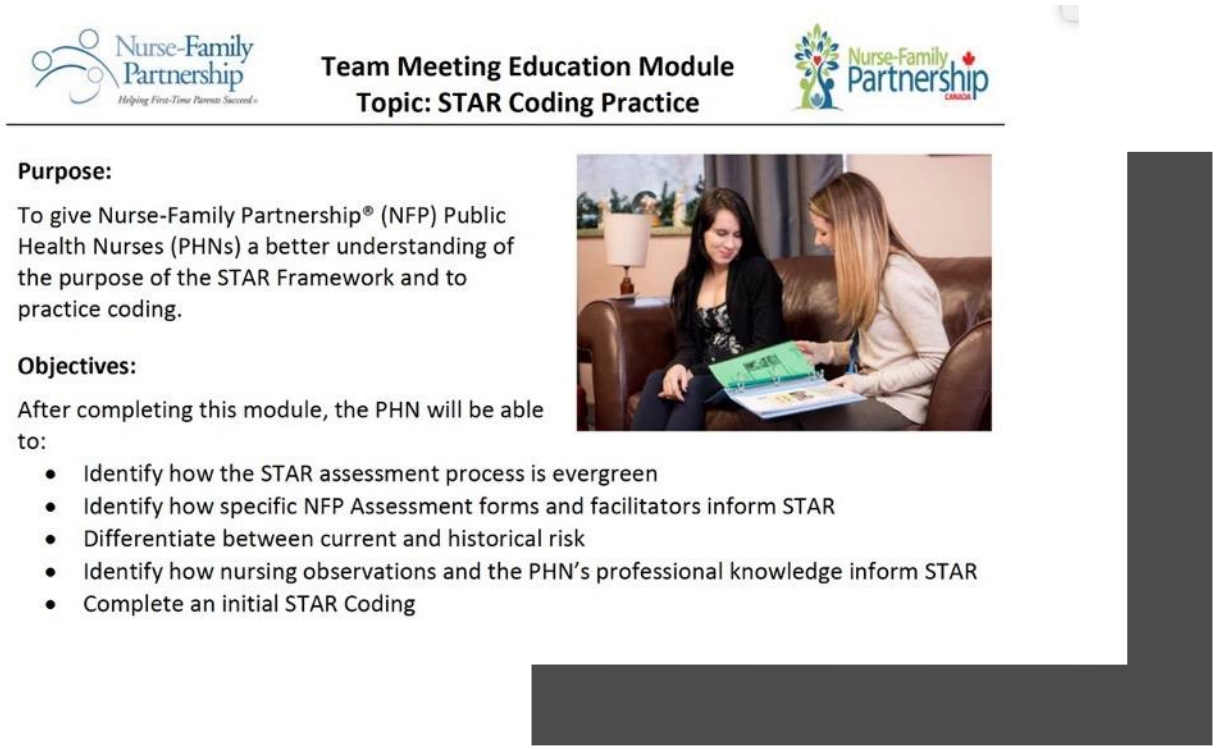
NFP Fundamentals – Supervisor education



NFP Consolidation & Integration – Job shadowing

- Clear expectations about nature and purpose (for both PHN and nurse mentor)
- Interest in observing how PHNs:
  - Use and complete assessment tools and facilitators
  - Introduce to the client NFP specific assessments or interventions
  - Complete required activities following a home visit
- Local job shadowing as more sustainable approach moving forward

NFP Consolidation & Integration – Team Meeting Education Modules (TMEMs)



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Team Meeting Education Module
Topic: STAR Coding Practice

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Purpose:

To give Nurse-Family Partnership® (NFP) Public Health Nurses (PHNs) a better understanding of the purpose of the STAR Framework and to practice coding.

Objectives:

After completing this module, the PHN will be able to:

- Identify how the STAR assessment process is evergreen
- Identify how specific NFP Assessment forms and facilitators inform STAR
- Differentiate between current and historical risk
- Identify how nursing observations and the PHN's professional knowledge inform STAR
- Complete an initial STAR Coding

- Good *"grab-and-go kits"*
- Barriers to completing the recommended 10 TMEMs/year
  - Time
  - Competing required training at local public health units
- Provided a list of suggestions for future TMEM topics

Overall Acceptability to PHNs and Supervisors

"Everything has a purpose. And you know when you look back in hindsight you can just see how, how nicely it flowed to do some self-study and then to get together and have that face-to-face and then have a little bit of time to implement and then have your shadowing opportunity and then the integration phase…I see the growth in myself and in the nurses."

Summary of Key Lessons Learned

Overall, NFP is acceptable to PHNs and supervisors as a public health intervention to address maternal and child health outcomes among a priority population of vulnerable women and their children.

Following completion of the Canadian NFP model of education, PHNs and supervisors demonstrated the capacity to implement the program with a high degree of fidelity to 13 of the 14 core model elements.

To have the knowledge & skills to deliver NFP with fidelity, a 3-phase approach to education that included a range of teaching & learning strategies was necessary. Face-to-face education highly valued for skill development & of NFP specific forms, processes, and activities.

Summary of Key Lessons Learned

Completion of the CaNE education, practice support from the NFP Practice Lead, and fidelity to core model elements may have contributed to PHNs' abilities to retain a majority of clients in the program.

Approximately 1/5 pregnant women referred to public health were eligible for NFP; NFP PHNs were exceptionally successful in converting referrals to enrolments.

Public health units highly successful in reaching and enrolling women eligible for program. Community engagement is required to identify strategies to increase the number of women enrolled < 16 weeks gestation

Summary of Key Lessons Learned

Public health nurses and supervisors provided key recommendations for ongoing improvement, and development of new elements, to the Canadian NFP model of education (e.g. increase number of interactive elements in NFP Foundations online modules).

The Canadian model of NFP education was perceived to be sustainable to provide education to a growing NFP workforce in Canada, and with the use of online learning, would also meet needs of future NFP sites outside of Ontario.

Learning outcomes identified to inform development of tools for ongoing evaluation of e-learning and in-person learning.

NFP in Ontario: Current Status

- Continue to offer NFP program in 5 health units
- Communication & Dissemination Planning:
  - Three reports of key findings
  - PowerPoint Presentation
  - Infographics
  - Peer-reviewed publication
  - Ongoing development & enhancement of curriculum components

Project Contacts

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