



Simon Fraser
University



BC Healthy
Connections
Project

The BC Healthy Connections Project (BCHCP): A Scientific Evaluation of the Nurse-Family Partnership Program in British Columbia

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For the BCHCP Steering Committee & Scientific Team

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Goals of Presentation

1. Review research evidence re the Nurse-Family Partnership (NFP) program.
2. Provide high level overview of BCHCP study.
3. Share experiences re formal collaborations which support BCHCP.
4. Highlight important fit with public health nursing role.



What is Healthy Start and how is BCHCP embedded?

- *Healthy Start*, an initiative of the *Healthy Families BC* prevention strategy
- <http://www.healthyfamiliesbc.ca/>
- *Healthy Start* includes a continuum of infant and family perinatal public health services, with:
 - Universal services provided to all families
 - Enhanced (additional) services provided where vulnerabilities are identified based on level of need, risk, strengths & protective factors
- *Healthy Start's* continuum focuses on 3 key periods:
 - Pregnancy
 - Birth to 8 weeks
 - 8 weeks to 2 years

Healthy Families BC

Great Goal 2: “Lead the way in North America in healthy living and physical fitness”

HEALTHY EATING

Informed Dining

Nutrition Information Requirements in Restaurants

Sodium and Sweetened Beverage Reduction:

Public Awareness Campaigns

Education Programs

HEALTHY START

Enhanced perinatal and child public health services for all women and their families

BC Healthy Connections Project (Scientific Evaluation of the Nurse-Family Partnership Program)

Public health nurse-led home visiting program for vulnerable women and their families

COMMUNITIES FOR HEALTHY CITIZENS

Healthy Families BC Communities

Healthy Families BC Schools

Healthy Workplaces

HEALTHY LIFESTYLES

Prescription for Health Program:

Personal Health Risk Assessment

Lifestyle Coaching

BC Prevention Schedule for Life

Integrated Cancer Care and Prevention

Nurse-Family Partnership (NFP)

- Landmark primary prevention program first developed by David Olds in the US 35 years ago
- *Child maltreatment* chosen as primary prevention focus because of profound associated consequences
 - Poor mental and physical health outcomes for children
 - Ongoing socioeconomic disadvantage and social exclusion
 - High associated societal costs, e.g., youth crime
- Three US randomized controlled trial (RCT) evaluations:
 - Elmira, New York; Memphis, Tennessee; Denver, Colorado

Robust US NFP Outcomes

- Child health and development (2→19 years)
 - Reduced child maltreatment
 - Improved child behaviour → reduced youth crime
 - Improved cognitive development → improved academics
- Maternal health
 - Reduced prenatal tobacco use
 - Increased economic self-sufficiency
- Program “pays for itself” (over 10–15 years)
 - Net returns → \$US 2.88 – \$US 5.70 for every dollar invested





Key NFP Program Elements

- Serving young, low-income, first-time mothers
- Providing regular home visits by public health nurses
- Building in flexibility to meet individual and cultural needs
- Beginning early → first visit before 28th week of pregnancy
- Providing long-term supports → until the child's 2nd birthday
- Ensuring continuity in relationships with mothers and children
- Encouraging community engagement

Required Steps for Delivering NFP Outside the US

1. Adaptation

- Modify the program for the local context → **Hamilton, ON, 2007**

2. Feasibility and Acceptability

- Conduct a pilot study in a small sample → **Hamilton, 2008-2012**

3. Randomized-Controlled Trial (RCT)

- Evaluate effectiveness in a large sample at multiple sites → **BC**

4. Expansion

- Disseminate and maintain, with ongoing evaluation



Why Evaluate NFP in BC?

- NFP has never been tested in Canada
 - Greater socioeconomic inequalities and fewer baseline health and social services in the US compared with Canada
 - NFP may not be more effective than our existing services
- Many outcomes also not yet fully evaluated, e.g.,
 - Prenatal alcohol use
 - Child anxiety, depression and substance abuse
- BCHCP therefore involves an RCT and process evaluation over the next five years



BCHCP Eligibility Criteria

INCLUSION: Women are eligible to participate if they meet all inclusion criteria at referral

1. Aged 24 years or under
2. First birth¹
3. Less than 27 weeks gestation²
4. Competent to provide informed consent, including conversational competence in English³
5. Socioeconomically disadvantaged⁴

EXCLUSION: Women are ineligible to participate if they meet any exclusion criteria at referral

1. Planning to have the child adopted
2. Planning to leave BCHCP catchment area for three months or longer⁵

1. Eligible if a previous pregnancy ended in termination, miscarriage or stillbirth, or if a child from a previous pregnancy was adopted at birth; individual circumstances may also be considered on a case-by-case basis
2. Mothers must receive their first home visit by 28th week of gestation, according to NFP fidelity requirements
3. Must be able to participate without requiring an interpreter
4. Based on indicators associated with increased risk of child Injuries
5. Catchment area comprises designated Local Health Areas within BC

BCHCP Outcome Indicators

Domain	Primary Indicator	Secondary Indicators
Pregnancy		Prenatal tobacco + alcohol use (<i>Maternal Self Report</i>)
Child Health	Childhood injuries birth → 24 mos (<i>Ministry of Health data on outpatient, emergency + hospital healthcare encounters</i>)	Child cognitive development @ 24 mos (<i>Bayley Scales of Infant Development</i>) Child behaviour @ 24 mos. (<i>Child Behaviour Check List</i>)
Maternal Health		Subsequent pregnancies @ 24 mos (<i>Maternal Self Report</i>)

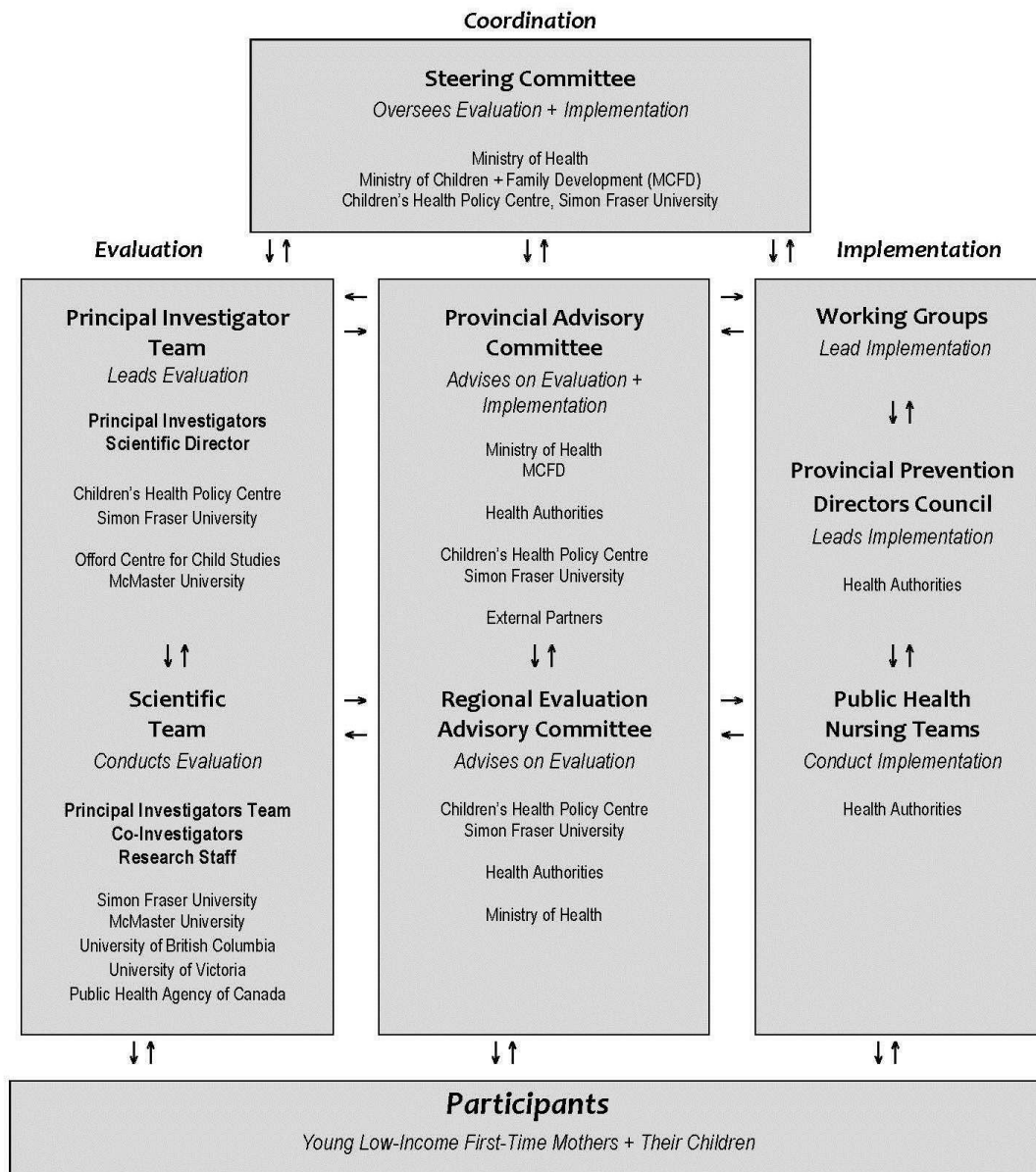
BCHCP Process Evaluation

- NFP's feasibility and acceptability in smaller rural and remote communities has never been tested
- Process evaluation will inform program adaptations to improve NFP's delivery in these communities
 - Same eligibility criteria and timelines as RCT
 - *Qualitative* interviews will be conducted with PHNs and Supervisors every 6 months on their experiences with NFP
 - *Quantitative* NFP program (e.g., fidelity) data will also be collected and analyzed

BC Healthy Connections Project

Scientific Evaluation of Nurse-Family Partnership in British Columbia

Final Version | October 26, 2012



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NFP Education for 52 Nurses and 10 Supervisors

- Formats: Self-study; in-person; team based; web-ex; on-line; teleconference
- Curriculum Examples:
 - NFP 18 Core Model Elements
 - Motivational Interviewing
 - Attachment, Ecological, Self-Efficacy Theory
 - Visit to Visit Guidelines
 - Intimate Partner Violence/Danger Assessment
 - ASQ-3 and ASQ-SE Developmental Screening
 - Edinburgh Postpartum Assessment
 - Dyadic Assessment of Naturalistic Caregiver–child Experiences
 - Reflective supervision and practice





Lessons Learned from Guiding Clients

- Client recruitment: 196 clients, 127 babies, 32 sites
- Client engagement: positive overall
- Client retention: 85 – 91%
- Nurses/Job satisfaction: “Hardest job I’ve ever loved”

Collaborative Partners

BCHCP Steering Committee:

- Nicole Catherine (SFU), Joan Geber (MoH), Donna Jepsen (MoH), Warren O'Briain, (MoH), Debbie Sheehan (SFU), Charlotte Waddell (SFU), Sandy Wiens (MCFD)

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Regional Health Authorities:

- Fraser Health, Interior Health, Northern Health, Vancouver Coastal Health, Vancouver Island Health



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**Thank you for your time.
Questions?**

