Public Health-Primary Care Partnerships

Evaluation of the Implementation of Ontario's Enhanced 18-Month Well-Baby Visit

What to expect: An overview

- Background
  - ❖ The enhanced well-baby visit
  - ❖ The project
- Methodology
- Results
- Conclusions
- Recommendations
- Future Directions
- Questions

Background: Enhanced 18-Month Well-Baby Visit

- **2005:** Expert Panel on the 18-Month Well-Baby Visit recommended a strategy to implement an enhanced well-baby visit in their report *"Getting it Right at 18 Months… Making it Right for a Lifetime"*
- **2006:** 18-Month Steering Committee of experts writes *"Final Report to the OCFP for the Evidence to Support the 18 Month Well Baby Visit,"* a report and summary of the evidence-based clinical practice recommendations underpinning the enhanced 18-month well-baby visit

Background:
Enhanced 18-Month Well-Baby Visit

- **Visit components:**
  - A consistent, focused developmental review and evaluation completed by a primary care practitioner in collaboration with parents,
  - The use of standardized assessment tools (recommended: Rourke Baby Record (RBR) and Nipissing District Developmental Screen® (NDDS®)),
  - Discussion (facilitated by tools) between primary care practitioner and parents on child development, parenting, and literacy,
  - Discussion about local community services and programs that promote healthy child development and early learning,
  - Identification of those children who will require referral to specialized services

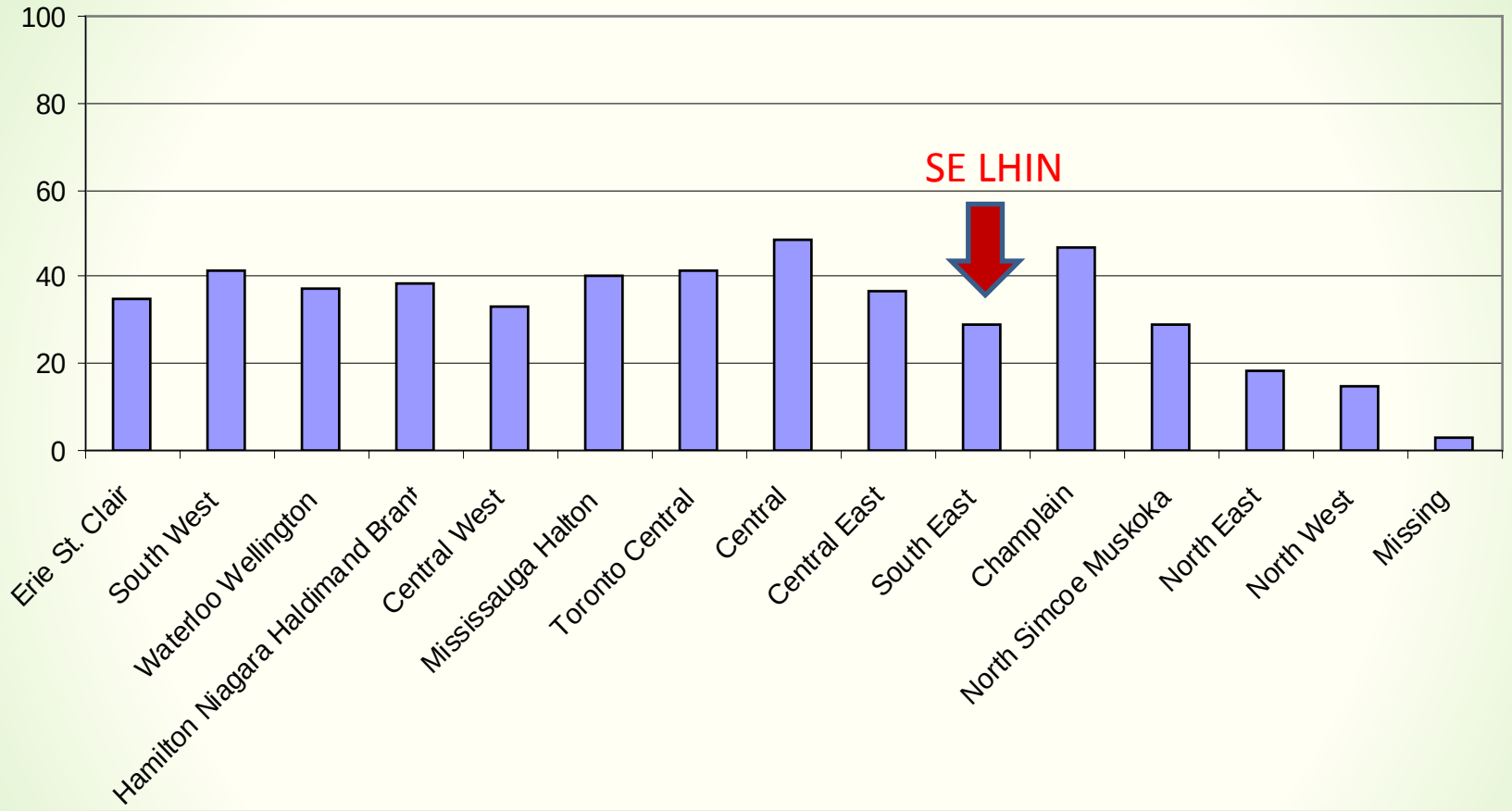
Background: Enhanced 18-Month Well-Baby Visit

- **2009:** Designated fee codes (GP/FP-A002; Pediatrics-A268) for the Enhanced 18-Month Well-Baby Visit were introduced to the OHIP Schedule of Benefits by the Ontario Ministry of Health and Long-Term Care, as a joint effort of multiple partners.
- **The fee code is outside the basket of services that FHTs provide.**

Background: The project

- **2011**: Institute for Clinical Evaluative Sciences published “Uptake of the New Fee Code for Ontario’s Enhanced 18-Month Well-Baby Visit: A Preliminary Evaluation” to illustrate the first 14 months of use for the fee codes

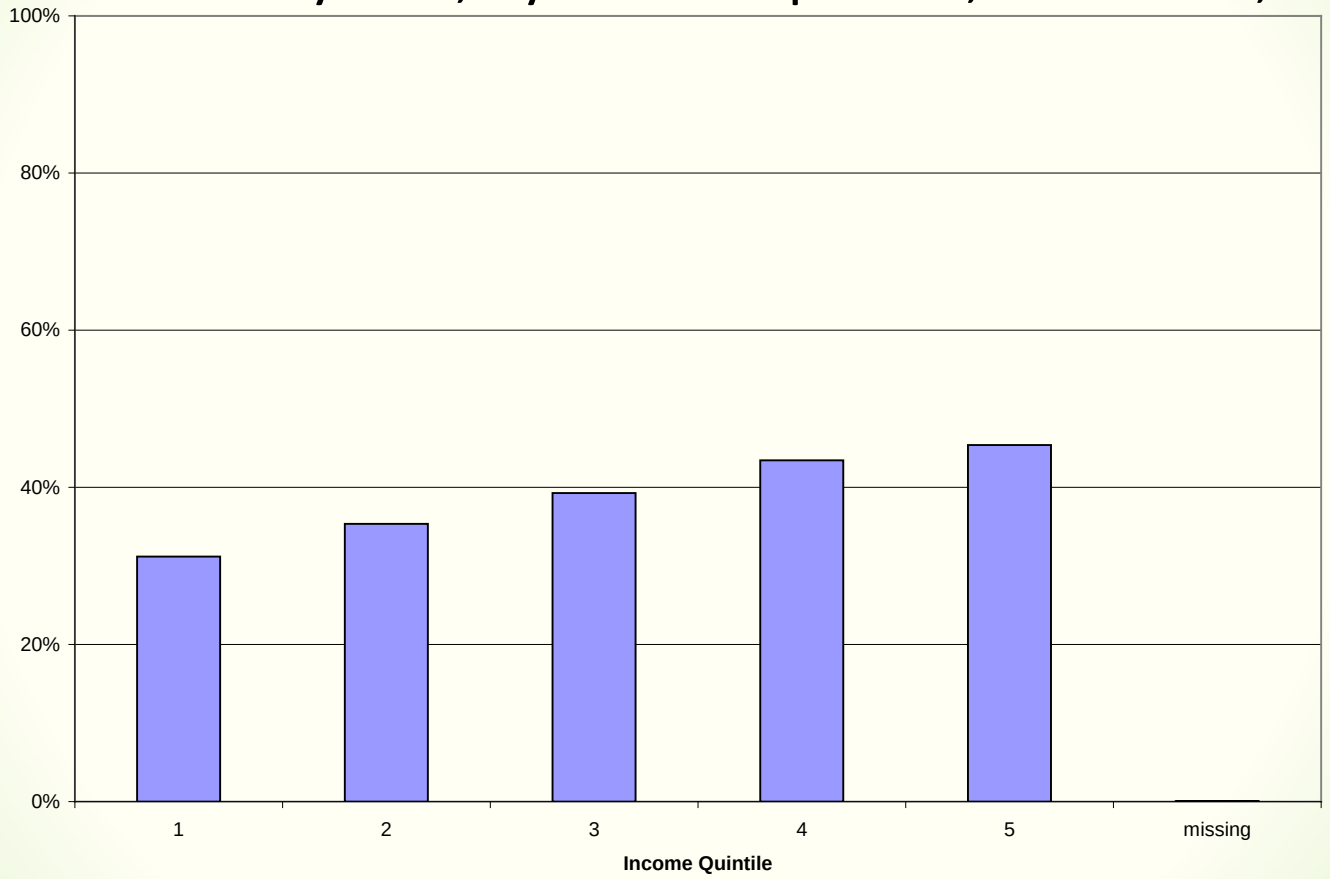
Figure 2: Proportion of children 17-24 months of age, with an enhanced well-baby visit, by Local Health Integration Network, 2010



In 2010, the overall proportion of eligible children receiving an enhanced 18-month visit was 38.2%. In the South East LHIN, 29.3% of eligible children received a visit.

Determinant of Health Lens

Figure 3: Proportion of children 17-24 months of age with an enhanced well-baby visit, by income quintile, in Ontario, 2010



As income quintile increases, the proportion of children receiving an enhanced 18-month well-baby visit increases.

Background: The problem

- Low implementation rate in our area
- Implementation is not systematic in practice
- Need to evaluate with an equity lens

Purpose

- To create a collaborative initiative between primary health care and public health
- To conduct a customized, formative evaluation of the implementation of the Enhanced 18-Month Well-Baby Visit in primary health care models, using a determinants of health lens
- To provide educational and necessary resources to improve the implementation of the Enhanced 18-Month Well-Baby Visit within primary health care

Our Vision: The Research

- Customized audits, longitudinally, using electronic medical records of FHTs and CHCs
- Describe service delivery in terms of provider type, geographic distance from primary care provider, and socioeconomic status
- Results of the formative evaluations will remain non-identifiable to any individual primary care practitioner
- Queen's University Research Ethics Board approved

Our Vision: Public Health's Role

- Provision of supportive resources
- Linking primary health care to community resources for population health benefit
- Long-term partnership with primary care
- Role of the public health nurse:
  - Supportive
  - Tailored to the needs of the individual primary care practitioners and organization
  - Provide educational resources with regards to the anticipatory guidance components of the Rourke Baby Record

Methodology:
Data collection and analysis

- Collaborate with KFL&A FHTs and CHCs to capture over 60% of the KFL&A patient population
  - ❖ Rural FHT
  - ❖ Urban FHT
  - ❖ Urban CHC
- Conduct audits of electronic medical records (EMRs) to evaluate the use of the fee codes
- Manual EMR searches for:
  - ❖ OHIP number
  - ❖ Postal code
  - ❖ Receipt of appointment
  - ❖ Immunization details
  - ❖ Referral and recommendation details
  - ❖ Provider classifications

- Use the Institut national de santé publique du Québec (INSPQ) Deprivation Index to analyze data with a determinants of health lens

Mapping of the Deprivation Index

In the mid 1980s, Peter Townsend defined deprivation as:

> "a state of observable and demonstrable disadvantage relative to the local community or the wider society or nation to which an individual, family or group belongs"

Source: Townsend P. Deprivation. J Soc Pol. 1987 Apr;16:125-46

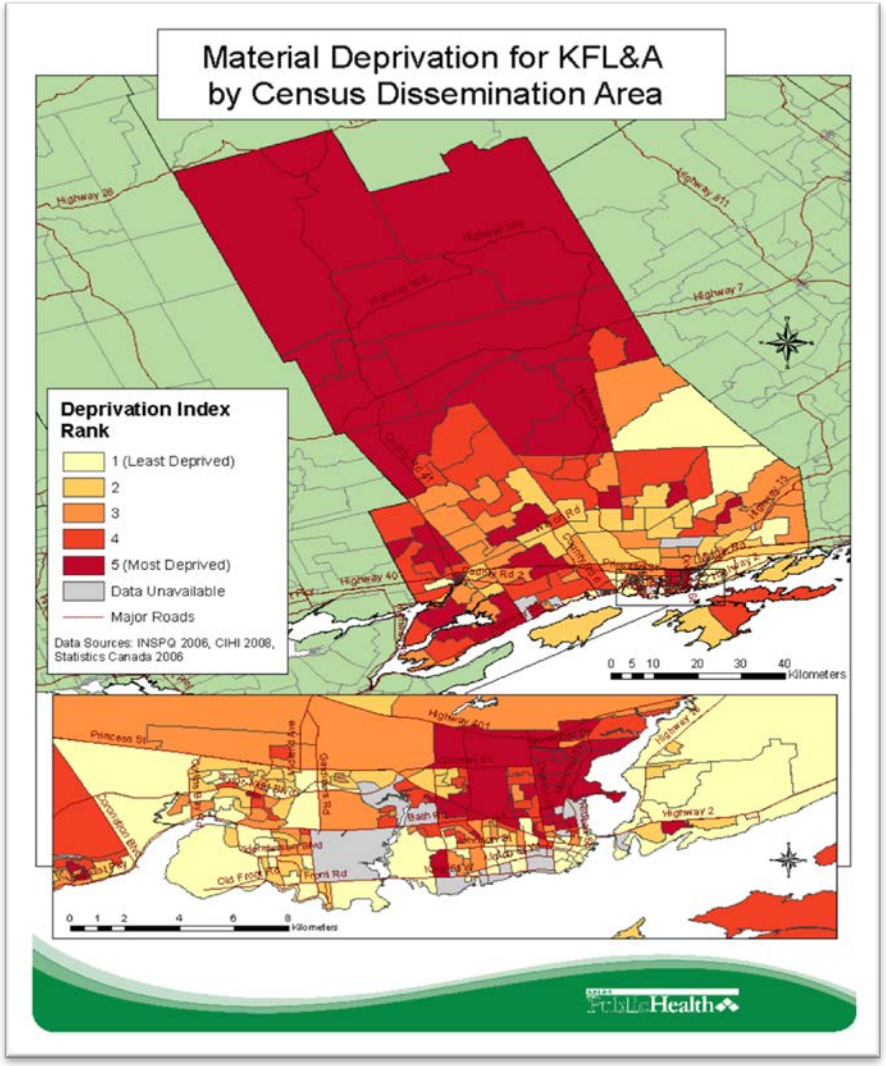
Indicators for the Deprivation Index include:

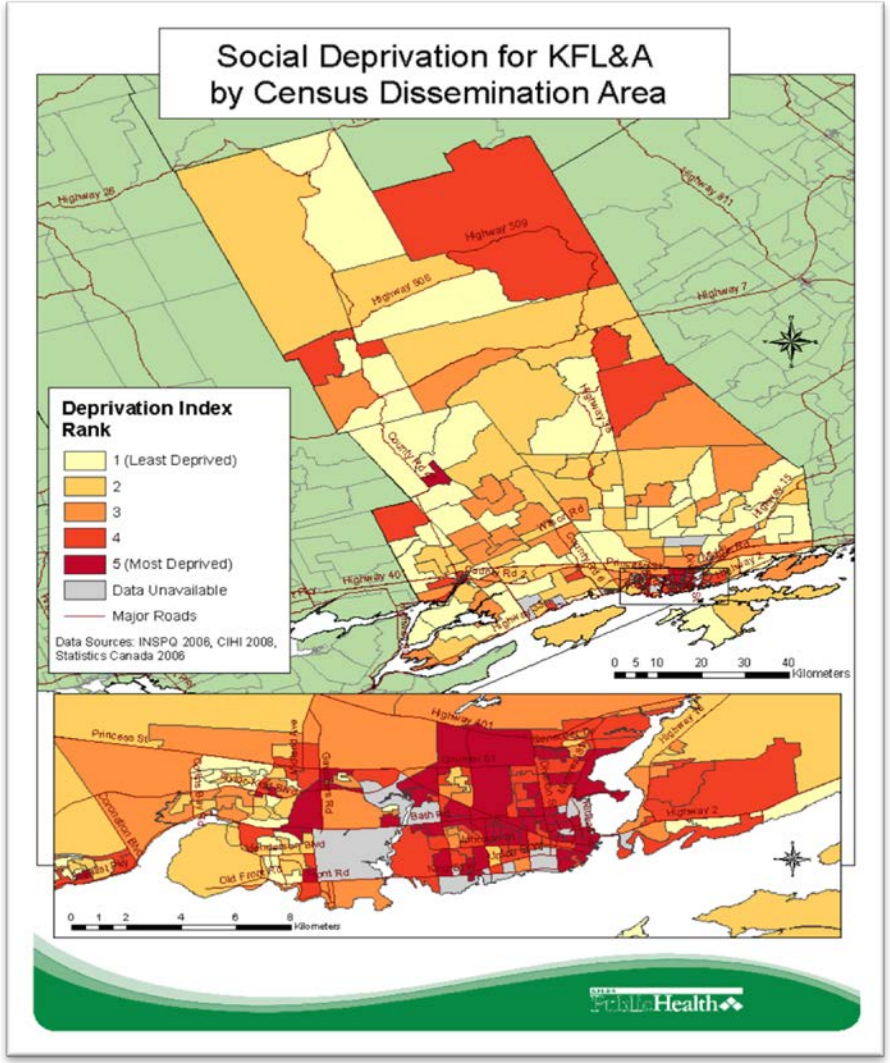
Education
Income
Employment Ratios

Material

Family Structure
Marital Status
Incidents of Persons
Living Alone

Social


Material Deprivation for KFL&A
by Census Dissemination Area
Deprivation Index Rank
1 (Least Deprived)
2
3
4
5 (Most Deprived)
Data Unavailable
Major Roads
Data Sources: INSPQ 2006, CIHI 2008, Statistics Canada 2006
Kilometers
Public Health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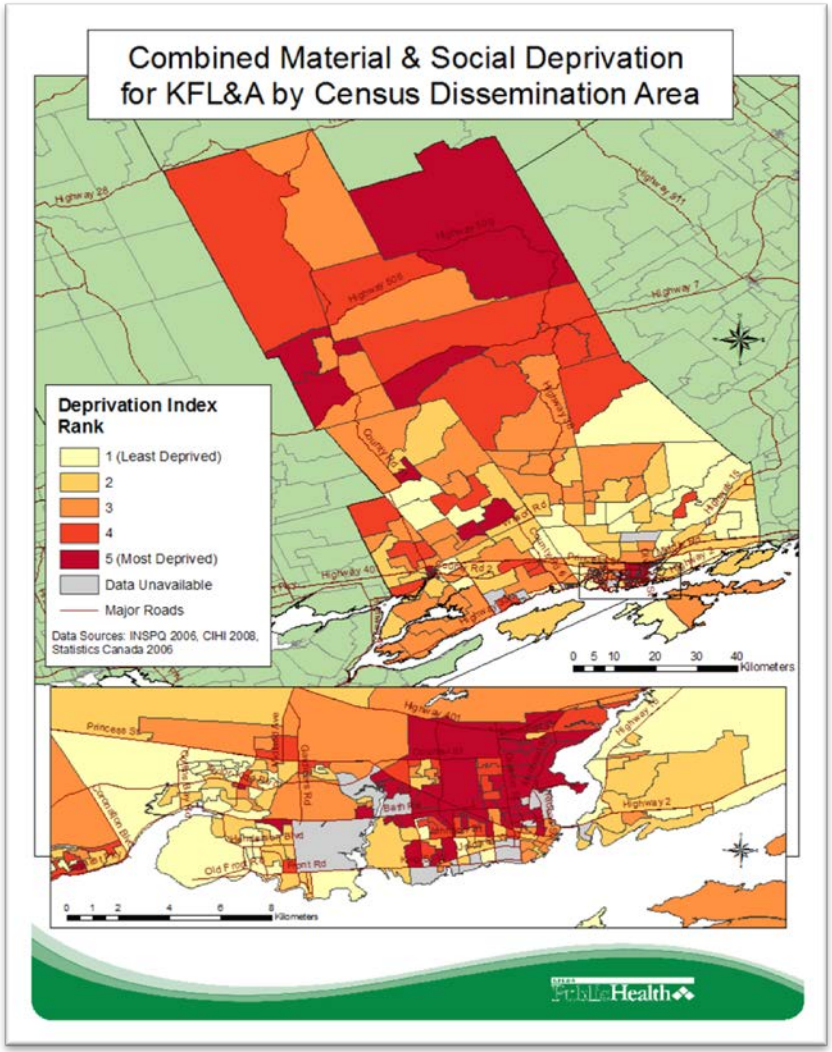


Material Component	Social Component				
	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5
Quintile 1	1	1	1	2	3
Quintile 2	1	2	2	3	4
Quintile 3	1	2	3	4	5
Quintile 4	2	3	4	4	5
Quintile 5	3	4	5	5	5

Results: Provider classifications

Provider Classification	Percentage of Appointments
Registered Practical Nurse (RPN) + Nurse Practitioner (NP)	39.13% (95% CI: 25.03%, 53.23%)
NP	21.74% (95% CI: 9.82%, 33.66%)
RPN + Physician (MD)	10.87% (95% CI: 1.87%, 19.86%)
Registered Nurse (RN)	10.87% (95% CI: 1.87%, 19.86%)
RN + NP	4.35% (95% CI: 0.00%, 10.24%)
RN + MD	4.35% (95% CI: 0.00%, 10.24%)
NP + MD	2.17% (95% CI: 0.00%, 6.39%)
RPN	2.17% (95% CI: 0.00%, 6.39%)
MD	2.17% (95% CI: 0.00%, 6.39%)
Medical Resident	2.17% (95% CI: 0.00%, 6.39%)

Table 1. Example of Enhanced 18-Month Well-Baby provider classifications at practices that do not use the fee codes.

Billing Code, Nurse Practitioner Billing Code, or Equivalent	Number	Percentage
A002	159	79.50% (95% CI: 73.90%, 85.10%)
Billing Code Equivalency	38	19.00% (95% CI: 13.56%, 24.44%)
Q613A	3	1.50% (95% CI: 0.00%, 3.18%)

Table 2. Example of Enhanced 18-Month Well-Baby fee code practices at a FHT that uses the fee codes.

Results:
18-Month Well-Baby Visits

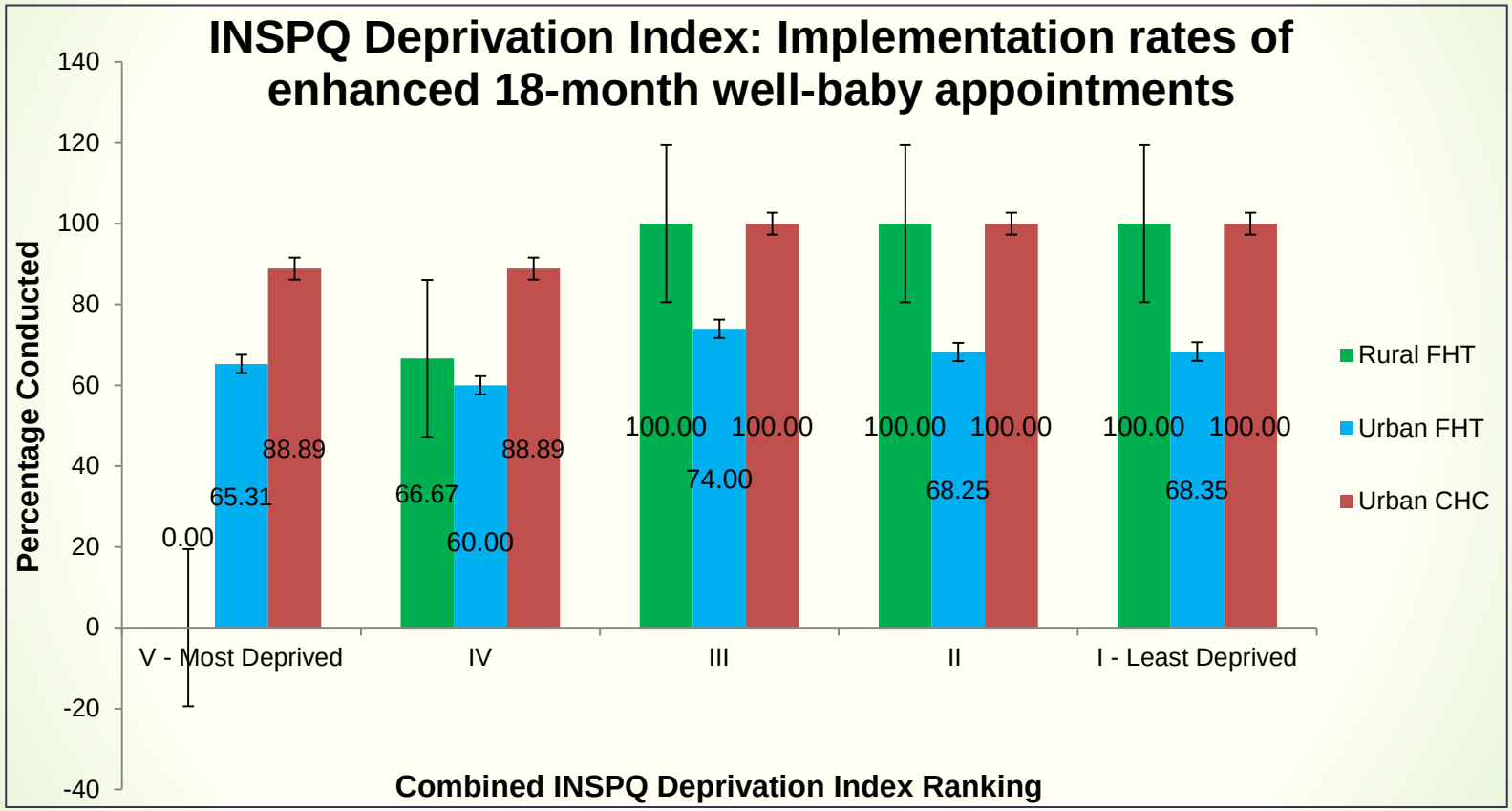


Figure 1. The implementation rates of the enhanced 18-month well-baby visits in random samples of a rural FHT, urban FHT and urban CHC; organized by the INSPQ Deprivation Index. Error bars represent standard error.

Results: Referrals

- 4 patients (8.70%, 95% CI: 0.0055%, 16.84%) within the random sample were already in contact with external referral agencies prior to the appointment
- Of the remaining 42 patients, 13 patients (30.95%, 95% CI: 16.97%, 44.93%) received a referral and/or a recommendation to a specialist or community resource program
- 5 patients were referred to 2 separate agencies

Nature of Referral	Number of Referrals
Follow-Up Appointment	4
Early Expressions Preschool Speech and Language Services	3
Optometry	3
Literacy Program/Prescription to Read	3
Dental	2
Orthopaediatric	1
Pediatrics (Hotel Dieu Hospital)	1
Daycare for Socialization	1
Total	18

Table 3. Nature and number of referrals occurring during the EWBVs within the random sample of eligible patients.

Results summary: Conclusion

- **Higher service delivery rates** of the Enhanced 18-Month Well-Baby Visit than the **average implementation rates** across Ontario's Local Health Integration Networks
- Service delivery trends favour populations categorized in the least deprived INSPQ ranking, suggesting a need to **target priority populations**
- Given the **small sample sizes**, detection of trends and patterns in the data may be subject to spuriousness, both theoretically and empirically

Recommendations: Improving implementation rates

1. Integrated approach with **all staff members** (similar to Ottawa Model for health promotion) to evoke feeling of responsibility for increased rates of service provision

2. Provide Enhanced 18-Month Well-Baby Visit **appointment cards** to parents at the 15-month appointment for educational and informational purposes

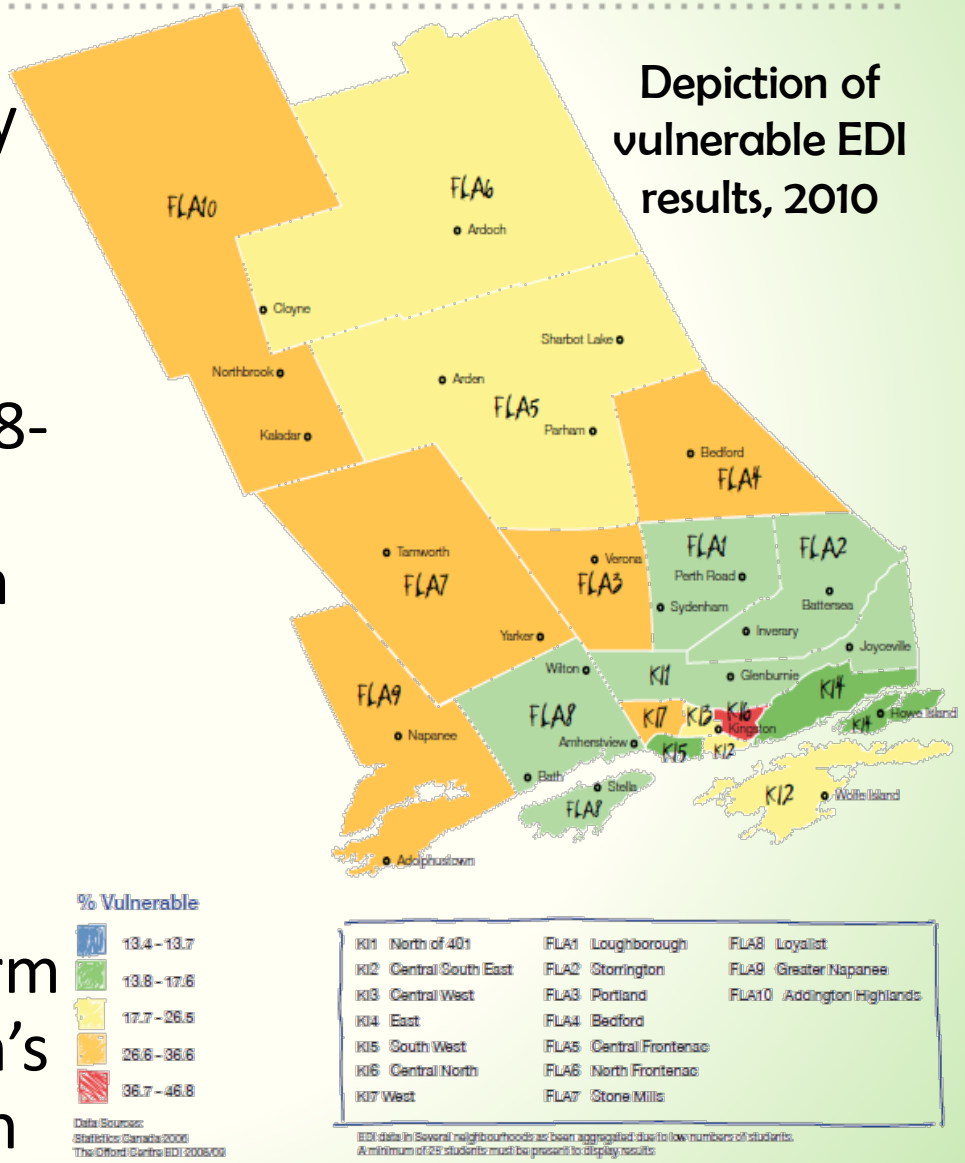
3. Promote appropriate **billing code practices**

4. Support integration of Rourke Baby Record and Nipissing District Developmental Screen tools into EMR software, as well as an Enhanced 18-Month Well-Baby Visit **electronic form** to facilitate more descriptive queries in future audits

5. Continue **on-going longitudinal audits** of Enhanced 18-Month Well-Baby Visit implementation rates throughout the KFL&A jurisdiction

The project: Future directions

- Continue to systematically **audit** the remainder of KFL&A FHTs and CHCs
- Correlate the Enhanced 18-Month Well-Baby Visit implementation data with **Early Development Instrument** scores to determine if the early childhood development assessment has a long-term positive effect on children's readiness for kindergarten



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Thank-you!

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KFL&A PublicHealth

Questions?