

# Innovations in Patient Care: A Framework for a Clinical & Decision Support Partnership to Improve Best Practice

*Phil Murphy, MSc<sup>1,2</sup>, Christine Winters, RN<sup>1</sup> and Lorraine Burrage, RN, MSc<sup>1</sup>.*

*<sup>1</sup>Newfoundland and Labrador Provincial Perinatal Program, Eastern Health, St. John's, NL, Canada and <sup>2</sup>Faculty of Medicine, Memorial University, St. John's, NL, Canada.*



www.nlppp.ca

### Abstract

In the traditional hospital organization, the clinicians gather patient data on a routine basis but the use of its information is often delayed or not utilized at all. Given this reality, collaboration between clinicians, decision support and management is essential for efforts to enhance the quality of care and improving best practice.

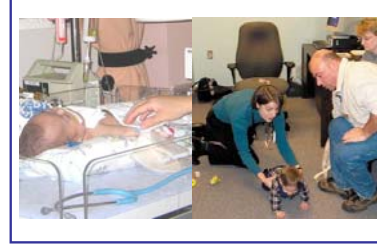
The presentation describes how the Newfoundland and Labrador Provincial Perinatal Program (NLPPP) has established a framework that will foster this partnership. The model involves a process of: simplified data capture; analysis & dissemination; then, collaboration with clinicians and decision support to interpret, design and implement an action plan with Neonatal Intensive Care Unit (NICU) staff and their clients' follow-up information.

A ten year summary of outcomes of infants at high risk for developmental delay is presented. The result of this interdisciplinary initiative has allowed clinicians and staff to become more informed of their clients' developmental outcomes and improve their daily clinical practice and patient care.

To improve quality of reproductive care and pregnancy outcomes in the province, the NLPPP aims for an collaborative approach in translating the knowledge of patient data back to the clinicians who initially captured the information.

### About the NLPPP

Established in 1979. Mandated to improve quality of reproductive care and pregnancy outcomes in Newfoundland and Labrador. Provide a province wide follow-up clinic to infants at high risk for developmental delay (~3% of annual 4500 live births). Surveillance of provincial deliveries, decision support role for Eastern Health and applied health research with Memorial University.



### Who's Referred

Some infants, including those who are very premature, of low birth weight or have breathing problems after birth are automatically referred to the clinic before they are discharged from hospital. Most of the infants who are referred to the clinic have been admitted to the NICU or Special Care Nursery following birth.

### A Typical Clinic Visit

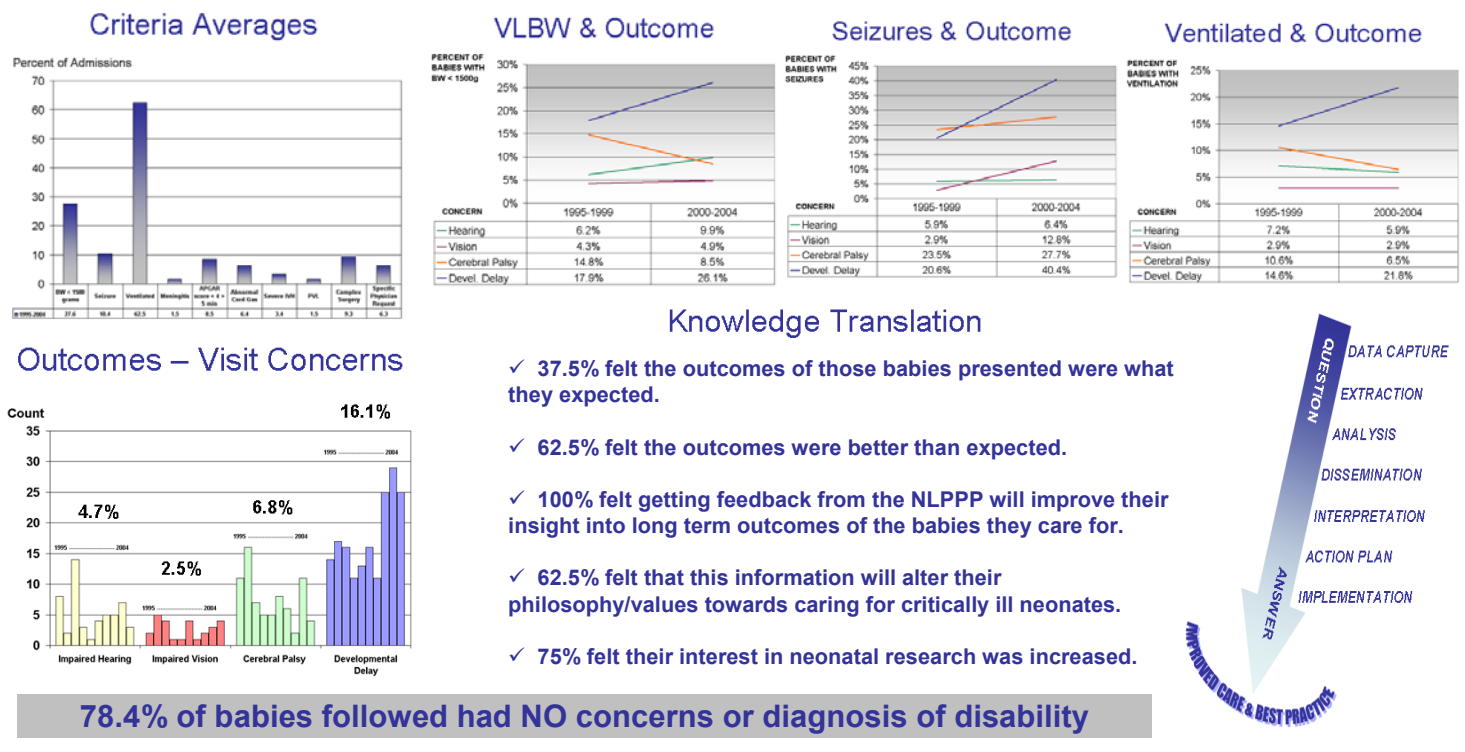
Children are seen at approximately 4,8,12,18 months and 3 years of age. Developmental screening, Neurological and Physical assessments are done at each visit and child is appropriately referred should additional intervention be necessary (Physiotherapy, Speech Pathology, Audiology, OT, etc.). At age 3 years, Bayley III Scales of Infant Development performed by psychologist. Following the 3-year visit, information is sent to the Public Health Nursing Division as the history to assist the pre-school assessment.

### Methods

Data from the High Risk Follow-Up database (MS Access) on babies born between 1995-2004. Data for each visit for all babies were analyzed using SPSS 15.0. Outcomes of interest were clinical concern or diagnosis of cerebral palsy, developmental delay, hearing impairment, vision impairment. Summarized information was presented to NICU staff and a 10 point Yes/No questionnaire was disseminated.

### Results

1102 were followed (61 or 5.5% went on to other follow up)  
 814 (73.8%) were born in St. John's  
 57.3% were males  
 83.8% were singletons  
 66.0% were born preterm  
 ▼ Cerebral Palsy (referred to Rehab)  
 ▲ Developmental Delay in recent years



### Conclusion

Administrative databases such as the NLPPP's follow-up database provide a rich source of information that can be utilized to improve quality of care and services. The key is through collaboration among clinicians, decision support and quality and risk management that allows easy data capture and analysis that will lead to better decision making. Discussion with front line caregivers is crucial.

