

# Improving Public Health Infant-Preschool Immunization Services: Process & Results of a Program Review

---

Mary Margaret Proudfoot    Nora Whyte    Stacey Joyce

Tanis Hampe    Kathy MacDonald    Debbi Banzer

# Presentation Objectives

- To highlight the processes used in conducting the review
- To discuss survey results and ideas for immunization program improvement
- To reflect on the review and to discuss implications for similar projects

France - 545,630 sq. km.

60,876,136 persons



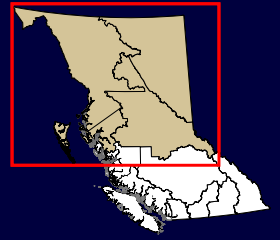
Northern Health - 598,000 sq. km.

307,378 persons



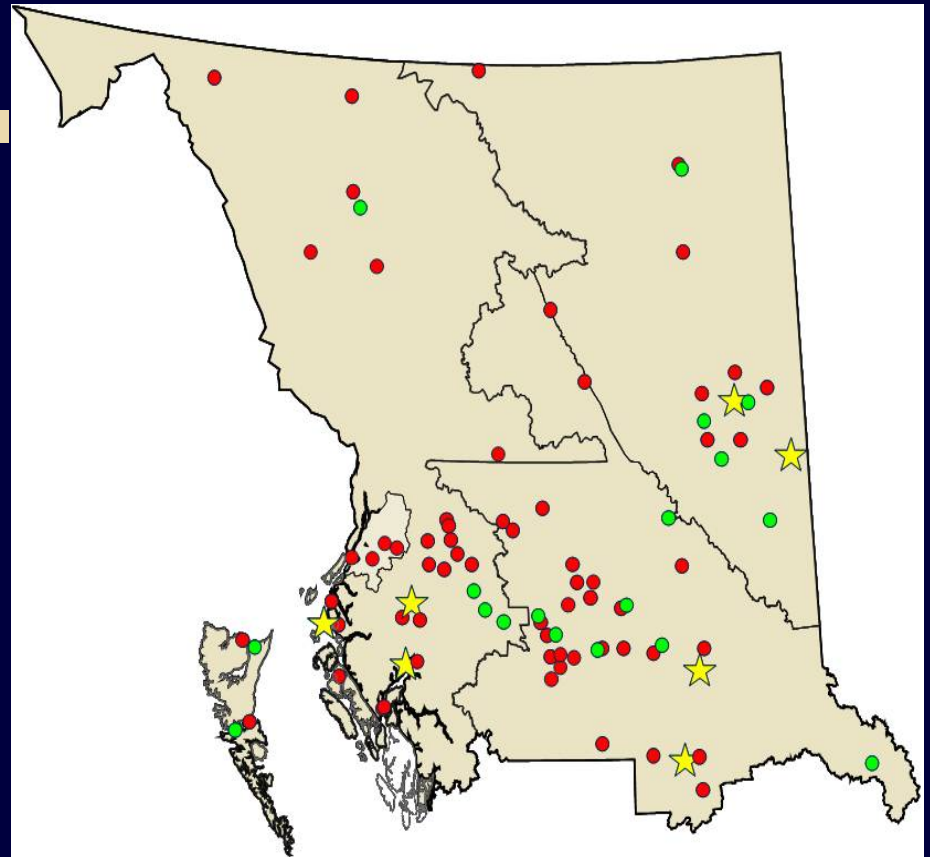
Source: France – obtained from the CIA World Fact book; Northern Health obtained from BC Stats.





## Northern Communities

- ★ 10,000 + persons
- 1000 - 10,000 persons
- Predominantly First Nations



A key service delivery challenge is the size of communities – many have only 50 – 250 persons.

# Background: Issues identified

- Low two-year old immunization coverage rates: 72.1% in 2006 (regional target was 75.5%)
- Not meeting provincial targets
- Number of initiatives being introduced with **no systematic regional approach**
- **No evaluation** of what was working or not
- Limited consumer input

# Objectives

- To identify best practice in childhood immunization (particularly rural regions).
- To achieve an understanding of current practice throughout the Northern Health region with respect to infant-preschool immunization.
- To use the findings of the review to develop a comprehensive plan that is evidenced-based and implemented consistently across Northern Health in order to improve immunization coverage rates in the infant-preschool population.

# Process

- **Steering committee formed** with representatives from Public Health Nursing and Research and Evaluation
- Sources of **funding explored** and **proposals written**
- **Approval requested** and **obtained** from Northern Health Research Review Committee



# Process

- **Funding received** from BC Centre for Disease Control, Wyeth's *Partnering for Protection Grant Program*, and Northern Health
- **Plan developed** to move forward
- **Steering committee coordinated** review carried out in 2007 and 2008 (developed survey tools, reviewed progress and communicated with public health nursing leaders)

# The Components

# Public Health Infant-Preschool Immunization Program Review

## Best Practice Review

- **Literature review:** factors affecting infant-preschool immunization rates
- Document review: effective practices in immunization programs
- Interviews with other Health Authorities within BC and in other provinces

## Current Practice Review

### PARENTS

- Survey that includes children who are fully, partially or have had no immunizations
- Evaluation of current service in their community
- Why they attend CHC?
- Concerns/barriers with immunization
- If behind, why?
- Preference for CHC versus just immunization

### PROVIDERS (PHN)

- Current service in their community
- What works?
- What does not work?
- Perceived barriers to full immunization coverage

### PHYSICIANS

- Current service in their practice
- Thoughts about promoting, administering immunizations
- Do they connect patients with Public Health?
- How could PHN better support them?
- Evaluation of Chart Sticker Program

### OTHER PROFESSIONALS

- Nurses in Acute Care Settings (e.g., Special Care Nursery, Pediatrics)
- Community partners who provide resources, venues for clinics
- Ministry of Children and Family Development (social workers, foster parents)

### DATA QUALITY

- Review of audit process:
  - When are they done?
  - Where are they done? (Community/regional level)
  - Who is doing them?
  - Who sees the audits? How are they being reviewed/analyzed?
  - What is done for follow-up with parents whose children are behind to encourage

# Public Health Infant-Preschool Immunization Program Review

## Best Practice Review

- Literature review: factors affecting infant-preschool immunization rates
- Document review: effective practices in immunization programs
- Interviews with other Health Authorities within BC and in other provinces

# Public Health Infant-Preschool Immunization Program Review

## Current Practice Review

### PARENTS

- Survey that includes children who are fully, partially or have had no immunizations
- Evaluation of current service in their community
- Why they attend CHC?
- Concerns/ barriers with immunization, CHC
- If behind, why?
- Preference for CHC versus just immunization appointment

# Public Health Infant-Preschool Immunization Program Review

## Current Practice Review

### **PROVIDERS (PHN)**

- Current service in their community
- What works
- What does not work
- Perceived barriers to full immunization coverage

# Public Health Infant-Preschool Immunization Program Review

## Current Practice Review



### PHYSICIANS

- Current service in their practice
- Thoughts about promoting, administering immunizations
- Do they connect patients with Public Health?
- How could PHN better support them?
- Evaluation of Chart Sticker Program

# Public Health Infant-Preschool Immunization Program Review

## Current Practice Review

### OTHER PROFESSIONALS

- Nurses in Acute Care Settings (e.g., Special Care Nursery, Pediatrics)
- Community partners who provide resources, venues for clinics
- Ministry of Children and Family Development (social workers, foster parents)



# Public Health Infant-Preschool Immunization Program Review

## Current Practice Review

### DATA QUALITY

- Review of audit process:
  - When are they done?
  - Where are they done?  
(Community/regional level)
  - Who is doing them?
  - Who sees the audits? How are they being reviewed/ analyzed?
  - What is done for follow-up with parents whose children are behind to encourage immunization?

# Results

# Best Practices: Literature Review

- **Supports:** positive attitudes, convenient locations, flexible & extended clinic hours, information from a trusted source and systematic reminders.
- **Barriers:** transportation problems, inconvenient locations, vaccine safety concerns, lack of time, lack of trust in providers, previous negative experiences and incomplete knowledge about schedules.
- **Combination approaches** work well (e.g., parent education, reminders and increased access).

# Literature Review

- **Low income status** is associated with lower immunization uptake—intensive interventions in target communities are showing promising results.
- **Adequate supply of well-trained and competent immunization providers** is critical to program sustainability.

# Best Practices: Key Informants

- Strong desire to improve coverage rates.
- Improved access through new locations, extended hours and more outreach.
- Use of reminders and recall methods (phone calls, letters & cards).
- Use of immunization registries.
- Recognition of determinants of health and attention to needs of families—more flexible drop-in sessions, incentives, outreach workers & transportation assistance.

# Current Practices Review

Parent Survey: 2 groups = 604 respondents

- Clinic group (386 parents): received survey at CHC sessions at Health Units
- Mail group (214): parents whose children were behind schedule received survey by mail

# Topics Covered in Survey

- Knowledge/attitudes about vaccine preventable diseases, vaccines & schedules
- Sources of information
- Supports & barriers
- Experiences with clinics
- Suggestions for improvement

# **Top Supports Experienced by Parents in Having Children Immunized**

- 1. Time to ask questions**
- 2. Convenient clinic location**
- 3. Ease of making an appointment**
- 4. Reminders from Public Health Unit**
- 5. Quality of information from PHNs**
- 6. Convenient days/times of clinic**



# Top Barriers Experienced by Parents in Having Children Immunized

1. Long wait time for appointments
2. Conflicting information about vaccine safety
3. Inconvenient days/times
4. Baby cries
5. Difficulty with keeping appointments
6. Weather

# Supports experienced more often by Clinic Group than Mail Group:

- Ease of making appointment
- Convenient location
- Positive attitudes of physicians and other providers
- Convenient days/times
- Quality of information provided by PHNs
- Opportunities to ask questions
- Reminders from Public Health Unit
- Encouragement from family and friends

# Barriers experienced more often by Mail Group than Clinic Group:

- Long wait time for appointment
- Lack of privacy at clinic
- Lack of support from physicians and other providers
- Conflicting information about vaccine safety

# Reasons for Missed Appointments

## ALL PARENTS

- Child was ill
- Forgot about appointment
- Away on holidays or work
- Work commitments
- Mixed feelings about immunizations
- Weather conditions

## MAIL PARENTS

- Mixed feelings
- Negative experiences with past immunizations
- Chose not to go

# Conclusions: Parent Survey

- Parents value comprehensive CHCs with time for health checks, professional advice, monitoring of growth and development and time to ask questions.
- Parents whose children were behind schedule experienced fewer supports and more barriers.
- Time with PHNs, convenient locations and clinic times and ease of making appointments emerged as important supports.
- Greater flexibility of locations, hours and appointment options would improve access.
- Reminders from Health Units help parents.

# Current Practice Review: PHNs

- Conducted online survey of PHNs in November and December 2007.
- 53 of 89 (59.5%) PHNs responded.
- Survey questions covered service locations, range of services in CHCs, appointment options, concerns, program ideas and professional development.

# What Is Working Well

- Time with families to offer full range of services
- Good organization of clinics
- Relationships
- Reminders
- Assistants (clerical staff and volunteers)
- Flexibility (times, appointment options)

# What Is Not Working Well

- Family factors (missed appointments)
- Lack of time to offer all services
- Wait times for appointments (PHN shortage)
- Transportation issues
- Inflexible & inconvenient clinic hours



# Conclusions: PHN Survey

1. More PHNs
2. Improved clinic organization
3. More immunization promotion
4. More time for CHCs
5. More professional development opportunities
6. Expansion to new clinic locations

# Recommendations of Review

- Ensure adequate **staff resources** to maintain and enhance service delivery.
- Continue with **comprehensive CHC service** while offering more options for short immunization-only appointments and flexible drop-in sessions.
- Improve **access** through extended hours and new community locations (with special attention to low-coverage areas).
- Support **capacity** of PHNs to offer a quality program (more time, professional development & consultation when needed).

# Recommendations of Review

- Improve **clinic environments** & organization.
- Continue to explore and exchange best practice ideas—encourage more **knowledge exchange** and transfer among program staff.
- Monitor and evaluate the **results** of implementing best practices.

*Next Steps: Physician Survey underway  
Implementation Plan—under development.*

# Acknowledgements

- Study Participants: Parents & PHNs
- Key Informants from RHAs
- Public Health Managers and Staff, Northern Health

Funded by:

British Columbia Centre for Disease Control

Wyeth *Partnering for Protection Grant* Program

Northern Health