

# Evaluation of cost effectiveness of using reminder / recall to improve immunization rates in the pediatric population.



**Alberta Health  
Services**

**Chinook Health**

**Type of Project:** Research

**Organization:** Chinook Health Region  
Lethbridge Community Health – Train Station  
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## **Objectives:**

1. To increase the coverage for three types of vaccines (pneumococcal, 5 in 1, and meningococcal)
2. To determine the cost effectiveness of utilizing a reminder recall system to improve immunization rates.

**Target Audience:** Parents

**Project Summary:** A total cohort of 2200 children will be enrolled in the study and will be eligible for 3 immunization events in the program year. Corresponding education materials will be distributed to staff and new parents. Of this cohort, 200 parents will receive the study intervention of a new automated telephone reminder/recall system. The study intervention will be compared with the standard form of approach. The measured outcome of the study will be the immunization coverage status (“on-time”, “delayed”, or “not-at-all”) for three types of vaccine (pneumococcal, 5 in 1, and meningococcal). These will be measured with the electronic record that is maintained for all children in the region. In addition to measuring the differences in outcomes between the two groups, the costs of the interventions will also be measured. This will include the cost of the new reminder/recall system, all personnel and any of the costs identified by the region. The cost effectiveness analysis will consist of relating the differences in coverage between the two groups and the differences in costs. The cost effectiveness analysis will be contracted to the University of Alberta - Phillip Jacobs, PhD, Professor, Department of Public Health Sciences, University of Alberta and Fellow, Institute of Health Economics.

**Completion Date:** September 2008

## **Outcomes:**

This project demonstrated a significant decrease in the length of the delay of pneumococcal conjugate immunization by the fourth dose: 4% of children were immunized on time before the reminder versus 36% on time following the reminder. A further 28% were delayed by more than 180 days and after the reminder this dropped to 4%. The reminder system was found to be important as most delays occurred as a result of parental/guardian forgetfulness rather than intent to avoid immunizing their children. In addition, personal follow-up from a Public Health Nurse and or a home contact from a Community Health Representative were highly positive. When a phone contact could not be established, a home contact was initiated and this gave parents a sense of connection, an opportunity to clear up misconceptions and reinforced the importance of immunization.

Reasons for delayed immunization as gathered from parent contacts have informed our practice. Subsequently we have developed two complimentary strategies: an information series for professionals to address inconsistent or inaccurate information provided by some health care workers and a client directed reminder: home visit door knocker.

Plans for the future include use of proactive reminders for routine immunizations and outbreak management.