

Background

The Newborn Metabolic Screening (NMS) Program implementation communication campaign was created within the NMS Program Initiative. The initiative was established in 2010 by Alberta Health Services (AHS) to coordinate a response to a Government of Alberta Health Ministry directive to meet newly developed newborn screening standards; including screening 100% of infants born in Alberta.

During 2011 and 2012 over 100 stakeholders were consulted across Alberta to create a province-wide NMS Program clinical policy and supporting documents to meet the new standards. To promote the adoption of consistent newborn screening practices within an organization of 104,000 employees and diverse geographical challenges, an innovative approach was required to implement the clinical policy and supporting documents.

The goals of implementation were that consistent and evidence-informed newborn blood spot screening practices were adopted across the province; the Ministry of Health standards were achieved; and screening opportunities were maximized, potential errors minimized and the risk of not screening every infant every time was reduced.

Implementation Environment

Newborn screening in Alberta is integrated into multiple clinical areas (for example postpartum, public health and laboratory) and provided by different health provider roles (for example nurse, midwife and laboratory technician). Implementation needed to provide support to all health providers involved in the newborn screening pathway regardless of which clinical area or role was providing care.

Registration: Infant registered and given Alberta Unique Lifetime Identifier (ULI) **within 24 hours** of age

Collection and Transportation: Blood spots from infant's heel collected in hospital, lab, home or clinic **between 24 and 72 hours** of age, as close to 24 hours as possible

Analysis and Reporting: Blood spots analyzed by NMS Lab in Edmonton **within 72 hours** of collection

Follow-up: Normal screen results sent to physician or midwife **within 48 hours** of lab receipt

Analysis and Reporting: Blood spots analyzed to screen for 17 treatable conditions

Follow-up: Abnormal screen results called and faxed to physician or midwife and speciality clinic **within 96 hours** of lab receipt

Follow-up: Repeat collections arranged by public health nursing

Follow-up: Infant assessed and other testing arranged, and treatment started when needed

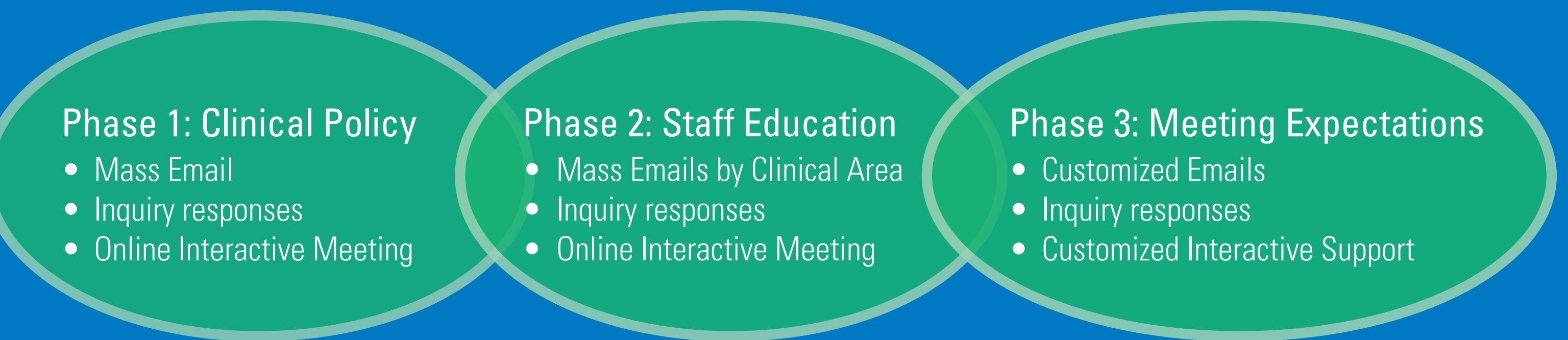
The communication campaign focused on building capacity through facilitation and the provision of supporting documents enabling health providers to take ownership of newborn screening in their clinical areas and increase the quality of the NMS Program.

The NMS Program staff education "course was very informative. I realized I was doing some things wrong all these years,"
Laboratory Services Staff Member



Communication Campaign

A communication campaign was developed to integrate, organize and manage provincial clinical policy implementation. This was achieved through three multifaceted communication phases, each introducing information and support to clinical areas across Alberta between October 2013 and January 2014.



The communication campaign consisted of a strong online presence and targeted emails followed by audience-driven interactive communication enabling individuals and clinical areas to adopt consistent newborn screening practices with local variations. To reach health providers across Alberta emails to points of contact were used to disseminate key information about the new standards, the NMS Program clinical policy and supporting documents which consisted of staff education web sessions and PDFs, and parent information. The NMS Program then provided detailed responses to email inquiries, answered questions through online interactive meetings and worked with individuals and clinical areas as requested to provide customized help.

Results

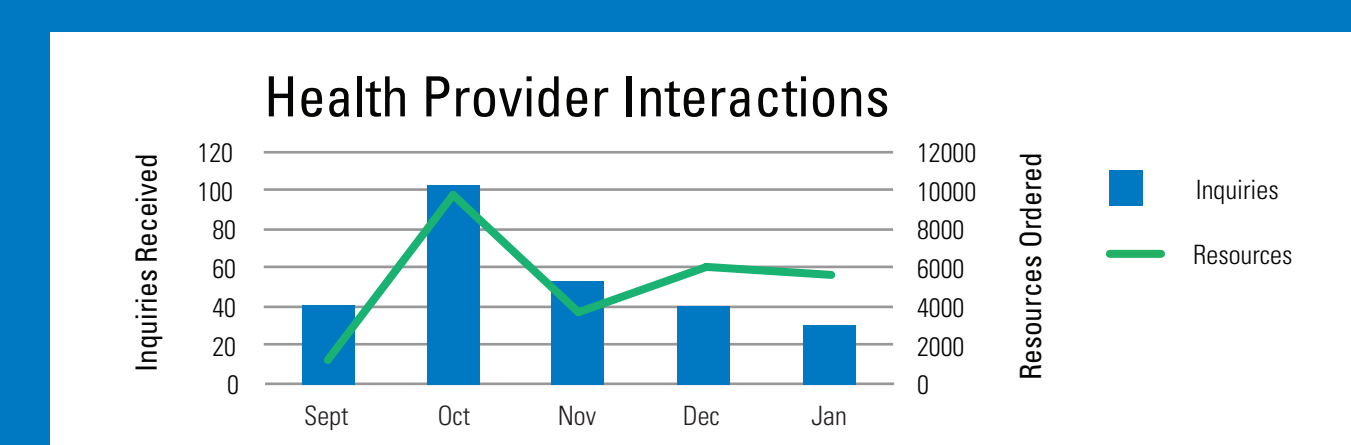
NMS Program clinical policy implementation was evaluated for its impact on program performance and the effectiveness of the process. The evaluation findings indicate the communication campaign was successful.

NMS Program performance improved in significant areas contributing to minimizing morbidity and mortality of infants through early diagnosis and treatment. Performance data was pulled from October to December of 2013* and has been compared to June to September 2013 and October to December 2012. The provincial screening rate is holding steady above 99.4% and high analysis and follow-up rates are also being maintained.

Performance Measure	Campaign Data*	June to Sept. 2013	Oct. to Dec. 2012
Birth Registration within 24 hours of age rate:	99.09%	98.96%	98.96%
Inadequate samples rate (target is 2% or less)	1.92%	2.10%	2.81%
Sample receipt within 72 hours of sample collection rate:	94.25%	94.18%	92.43%

* Campaign data for performance measures is preliminary; finalized data will not be available until the fall of 2014

Health providers indicated the communication campaign activities and supporting documents were effective and sufficient. Eighty-five per cent of survey respondents reported the communication phases enabled clinical areas and individuals to meet the expectations in the NMS Program clinical policy. Of survey respondents who interacted with the NMS Program, receiving information from the NMS Program coordination team by email (82.56%), through a colleague (89.83%), and staff education web sessions (83.64%) and PDFs (87.69%) were the most valued. There was a significant increase in interactions between the NMS Program and health providers regarding newborn screening which facilitated sustainable changes in practice.



Conclusions

Applying a communication campaign approach to implementing province wide health policy appears to be a successful way to support newborn screening program quality. The three communication phases each created health provider awareness, knowledge and commitment to newborn screening. Phasing the communication activities enabled the NMS Program to build audience capacity through meeting their individual needs and preferences. Sustaining quality newborn screening practices will depend on continued quality management through dedicated provincial coordination.



Alberta's Newborn Metabolic Screening Program

The Newborn Metabolic Screening (NMS) Program screens for 17 treatable conditions (14 metabolic conditions, 2 endocrine conditions and cystic fibrosis) to identify and treat infants with any of the screened conditions as early as possible.

The purpose of the NMS Program is to provide timely and effective screening to all infants born in Alberta. Early screening can make the difference between healthy development and lifelong health problems. The NMS Program helps find treatable conditions early so treatment can begin in time to prevent health problems, improve infant health and save lives.

The Alberta NMS Program is a population-based screening program delivered by Alberta Health Services (AHS) in partnership with Alberta Health, Health Canada – First Nations Inuit Health Branch Alberta Region, providers, and parents and guardians.

