

EXECUTIVE SUMMARY

The project team, funded by the Ministry of Health and the Health Research Council of New Zealand, worked with end users and key community groups to develop and test resources designed to communicate information about infant immunisation to mothers-to-be.

Background

In late 2007, Massey University's Adult Literacy and Communication Research (ALCR) group met with the Whanganui Regional Primary Health Organisation (PHO) research facilitator. The ALCR group had developed, through a prior research project, means of using illustrations to communicate findings to participants with low literacy levels. The group wished to develop this idea further, potentially in terms of communicating health information to individuals with low health literacy levels. The resultant discussion resolved to merge two ideas: 1) the interest in developing illustrative means of communicating information; and 2) the community-identified need in Whanganui to enhance infant immunisation uptake rates.

Building the community team

Through Whanganui Regional PHO's research facilitator, a snowballing technique was used to approach health, education, and family support professionals with an interest in infant immunisation in the Whanganui District Health Board region (where the project was based). The ALCR group also contacted the Immunisation Advisory Centre at the University of Auckland. Everyone approached was enthusiastic about the idea of developing communication resources for infant immunisation that engaged end-users more fully. The final project team included: members of the ALCR group, School of Communication, Journalism & Marketing, Massey University; the Whanganui Regional PHO; the Immunisation Advisory Centre, University of Auckland; hospital and independent midwifery organisations including the Whanganui Hospital Maternity Service and associated rural and urban clinics throughout the region; Māori and Pasifika health and education service providers such as Nga Tai O Te Awa Māori Development Organisation, Te Oranganui Iwi Health Authority PHO, Te Kotuku Hauora O Rangitikei – Te Runanga O Ngati Apa, OTaihape Māori Komiti Inc., and the Born and Raised Pasifika Early Childhood Centre; and Birthright (Wanganui) for sole parents.

Objectives

Funded in November 2008 by the Ministry of Health and Health Research Council of New Zealand Partnership Programme, the project had four objectives:

- 1) to develop appropriate immunisation communication resources;
- 2) to determine if the resources improved recall and comprehension of information;
- 3) to report on the outcomes in relation to immunisation uptake at six weeks and again at three months;
- 4) to evaluate the resources and suggest recommendations for modification.

Method

The project began with a contracted literature review outlining the key literature in the infant immunisation field and placing the Whanganui region in context with national and international

immunisation rates. This review also discussed the impact of health literacy and the use of illustrations on understanding of health communication materials.

Collaboratively, the project team completed a two-phase method. **Phase one** involved a series of **focus groups with end-users and health professionals** to develop end-user directed infant immunisation communication resources. **Phase two** involved **a pilot trial of the resources utilising an intervention group and a control group**. The intervention group saw the fridge magnet and the flipchart along with an oral presentation of the key points on each page, whereas the control group only heard the oral presentation. Participants in the trial were soon-to-be mothers interviewed in their third trimester and again approximately eight weeks post-birth. Immunisation uptake rates were checked through National Immunisation Register (NIR) data at six weeks and three months. The project focused on infant immunisation due to the project timeframe of 21 months. At the end of each phase, feedback meetings were held with end-users and health professionals to validate the findings and further develop the resources.

Resource development

The focus group and subsequent feedback meetings with end-users and health professionals led to the development of a flipchart and an accompanying fridge magnet. The flipchart was developed to be used as a discussion tool in a one-to-one interaction between a health professional and a client (the most preferred method of information delivery). Each page of the A5-sized flipchart represents one key message or piece of information that end-users wished to know more about. Each page has associated spoken information for the health professional to read to and discuss with the client. The flipchart and magnet use bright colours, simple wording, and photographic images. Both resources also contain a simplified immunisation schedule to serve as a reminder of due dates, as well as 0800 numbers and websites for further information if required.

Tone and approach in resources

Some of our focus group participants along with other research findings (see references 1-3) indicated that parents wish to be presented with multiple viewpoints on immunisation and are upset by messages perceived as coercive. To attempt to address the need for information that is neither too overtly biased nor strongly coercive we avoided including phrases such as 'Immunisation is good'. Instead, we have taken care to use informative, non-emotive language in stating, for example, the process of events when people visit a clinic to have their child immunised, the responses to be expected, and the response symptoms to be concerned about. We acknowledge that by including pictures of children suffering from the diseases (as requested by focus group participants) and by stating these are the diseases immunisations help protect against, we still imply that immunisation is good. Nevertheless, while our resources are effectively pro-immunisation, they are perhaps not as direct as some other publications in saying that people should immunise. It was important to all the participants that resources not be authoritarian in their approach.

Outline of qualitative interview findings

The antenatal and postnatal interviews generated data on a number of factors including: sources of information; information quality judgements; information needs; preferred means of receiving information; preferred times of delivery of immunisation information; impacting factors on immunisation decisions; text-messaging preferences; recall of intervention material and evaluation

of the fridge magnet (postnatal interview only); and the intention to or the incidence of immunisation at six-weeks (see section 4.3 and 4.4).

Findings specific to the resources

The control group were more likely, at the postnatal interview, to have little to no recall of the information given to them, even with prompting. The intervention group, however, were more likely to have confident recall, recalling three or more items of information without prompting. Of those who had been given a fridge magnet, 73% had displayed it in their home and stated it was a useful reminder. The project team initially sought to make comparisons between individuals with high health literacy levels and individuals with low levels. However, using the Short Test of Functional Health Literacy for Adults (STOFHLA) showed all bar one of our participants had adequate health literacy levels. Therefore, this analysis was not pursued.

Immunisation uptake rates were similar across the two groups. The entire intervention group had fully immunised their children by three months, and all bar three of the control group had done so. Due to the small size of the pilot sample, it is desirable to test these resources with a larger sample to see if this small difference was due to chance, or is indicative of actual differences. Research into whether differences could be seen at later immunisation dates is also needed.

Recommendations: Changes to resources

Recommendations include minor changes or additions to the flipchart and fridge magnet suggested through feedback sessions with health professionals and end-users (Set out in 5.5.1 & 5.5.2). Work has begun on developing flipchart pages that address some of these recommendations. Subsequently, we have continued to collect improvement recommendations for a third future version.

Recommendations: Delivery of immunisation resources

These are set out in 5.5.3. Some key recommendations include:

- Information is delivered as part of a discussion – much current delivery focuses on providing brochures that remain unread.
- A flipchart tool is used to stimulate discussion and give confidence to health professionals.
- Discussions should cover basic material with avenues to more detail provided if required.
- Information should be provided in a factual way and not sound authoritarian.
- Information should be presented twice (in the antenatal period at approximately 28-30 weeks and again, in the postnatal period, at approximately 3-4 weeks).

Future research

The project team proposes to continue to trial these resources with larger samples and over longer time periods. Several District Health Board regions have expressed interest and initial discussion with midwives has shown enthusiasm for the resources. A next step would trial the delivery of the flipchart as a discussion (which was unable to be done in this study as consistency was needed between participants). Also, the timing of the delivery needs to be explored.