records held by the Community Health Information Management Enterprise (CHIME), the principal inpatient database, were often inaccurate and did not reflect community knowledge. Consequently, this prompted the systematic comparison of recorded Aboriginal identification in two datasets, CHIME and *ObstetriX*.[2]

Methods

The recorded identification of Aboriginal infants in two health service datasets was compared over a 3-month period, August–October 2010. Data from the NSW Health *ObstetriX* database were compared to the birth notification data available from the CHIME.

The *ObstetriX* database is completed in HNELHD maternity units. During the post-natal interview, midwives ask all mothers to nominate whether their baby will identify as Aboriginal and this information is then recorded in the *ObstetriX* database. Aboriginal births recorded in this database are supplied monthly to the Population Health Unit by the 15 maternity midwifery unit managers in HNELHD to permit follow up by the Aboriginal immunisation officer of these babies' mothers.

CHIME is the principal inpatient database in HNELHD and contains detailed patient demographic information collected during any presentation within the HNELHD. The CHIME data are automated and are available to the Population Health Unit within a few days of birth. However, Aboriginal identification of infants is not verified and defaults to the mother's recorded identity. This system populates all the HNELHD clinical records.

Results

Less than half (46%; 72/158) of newborns were recorded as Aboriginal in both data sets. Fifty-three percent of newborn Aboriginal children (84/158) were only recorded in *ObstetriX* and 1% (2/158) only in CHIME.

Discussion

Accurate recording by health staff of mothers' identification of their baby's Aboriginal status in medical information systems is essential to the success of the initiative linking Aboriginal infants and immunisation service providers. Strategies which allow Aboriginal people to identify themselves assist in the provision of services that can close the gap in health experience.[3]

The discordance between the *ObstetriX* and CHIME datasets identified by this study resulted in the HNELHD embarking on a program to encourage staff to support more complete identification by Aboriginal clients of the service. A training package for clerical staff who record demographic data was developed. Database managers now routinely compare Aboriginal identification data across databases, a quality measure initiated by this study.

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Why are children on the NSW North Coast not being vaccinated against chickenpox?

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In November 2005, varicella (chickenpox) vaccination administered at 18 months of age was included in the government funded National Immunisation Program for all children born after 1 May 2004.[1] Each month the former North Coast Public Health Unit received a report on children recorded as overdue to receive the vaccination according to the Australian Childhood Immunisation Register (ACIR). It appeared that a disproportionate number of children aged 20–60 months were recorded as overdue for varicella vaccine.

This study explored why 907 children living in northern New South Wales (NSW) and aged 20–60 months as at April 2010 had received, according to the ACIR, all their other due vaccinations but not varicella vaccination.

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Box 1. Questions asked of parents as part of the study to determine why children aged 20–60 months living on the NSW North Coast were not vaccinated against varicella

- Has your child been vaccinated against chickenpox?
  - If yes, give details of provider, date and batch number (from Baby Health Record)
  - If no, why not?
- Has your child had chickenpox (the disease)?
  - If yes, at what age did they have chickenpox?

Methods

The parents of children aged less than 5 years and identified as being vaccinated with all other scheduled vaccines except varicella were sent: a copy of their child's vaccination record; a chickenpox factsheet; a questionnaire; and a letter explaining that their child was overdue for varicella vaccination and highlighting the importance of the vaccination. As this study formed part of routine follow-up of children identified by the ACIR as being overdue for vaccination it did not require ethics approval. This is in accordance with NSW Health Policy Directive PD2005_098.[2]

The questionnaire included questions asking whether their child had been vaccinated and whether the child had also had chickenpox. See Box 1 for questions.

The ACIR records for all children were checked 12 months after the initial contact.

Results

A total of 406 questionnaires (45%) were returned to the Public Health Unit. More than a quarter of respondents ($n = 111$, 27.3%) indicated that their child had been vaccinated. This was verified by contacting their providers and updating the ACIR. Fifty respondents (12.3%) indicated that their child had experienced varicella infection and was therefore not vaccinated. Twenty-six of these children were reported to have had the infection before the age of 18 months.

The letter prompted 155 respondents (38.2%) to seek vaccination from their immunisation provider. Three percent of parents ($n = 12$) indicated that they had not been offered the vaccine by their vaccine provider, while approximately 6% ($n = 26$) indicated that they would rather their child got "natural disease". Other reasons for not vaccinating included wanting to wait until the child was older ($n = 2$), wanting to wait until the vaccine had been around for longer ($n = 2$) and medical contraindications (not registered with the ACIR) ($n = 4$). Some parents said that they had forgotten ($n = 7$).

Twelve months after the intervention, according to the ACIR 501 children (55%) remained unvaccinated and 42 parents (4.6%) had completed a conscientious objector form indicating they did not wish their child to receive the vaccine.

Discussion

Based on the returned questionnaires and verification with the immunisation provider, many children who had no varicella vaccine recorded on the ACIR had been vaccinated or had experienced self-reported varicella disease. The simple intervention of a letter indicating their child's status, describing the potential complications of chickenpox and encouraging vaccination, prompted almost 40% of the respondents to have their overdue children vaccinated against chickenpox.

Globally, many families and countries cannot afford to protect their children against varicella and it is not a public health priority in settings where vaccine-preventable pneumonia (pneumococcus), diarrhoea (rotavirus) and measles are common and must remain the focus of immunisation programs.[3] However, in Australia, where the vaccine is available free to children, greater effort should be made to encourage parents and providers to optimally protect their children.

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