

ISSUES IN ADMINISTRATION OF THE IMMUNISATION PROVISIONS OF THE PUBLIC HEALTH ACT, 1991

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This article reports on a survey of vaccine coverage among kindergarten children in the (former) Eastern Sydney Area. The survey was designed to assess compliance with the immunisation requirements of the Public Health Act 1991, and to identify difficulties experienced by parents and school staff in providing and collecting official immunisation certificates.

The immunisation provisions of the Act are a major initiative towards improving immunisation rates of NSW children. Under the Act, parents of children starting kindergarten from 1994 are asked to furnish an official immunisation certificate to the school at time of enrolment. The certificates provide a means to identify unimmunised children in event of an outbreak, serve as a reminder for parents to have their children fully immunised, and provide a mechanism for monitoring immunisation rates.

In 1994 the Eastern Sydney Public Health Unit carried out an immunisation survey among school kindergarten children¹. The study showed that 80.9 per cent of children had an official immunisation certificate, of which 89.9 per cent were complete. The present study provided comparative information.

METHODS

In November 1995 a brief questionnaire with a covering letter was mailed to the 73 primary schools in the former Eastern Sydney Health Area. The letter explained the immunisation provisions of the Public Health Act 1991, while the questionnaire sought information on the number of children enrolled in kindergarten in 1995, the number of official immunisation certificates provided, and the number with the 'complete' box ticked (see Figure 1 for a reproduction of the immunisation certificate form). Questions were included on measles and pertussis immunisation status among those with certificates indicating incomplete immunisation. School principals were asked to return the questionnaires within two weeks.

In addition, face-to-face interviews with principals and a review of immunisation records were conducted in 10 schools (14 per cent) selected at random. At the interviews the principals were asked about their understanding of vaccine-preventable diseases, their awareness of the responsibility to notify cases, their knowledge of the importance of excluding unimmunised children during an outbreak, the methods which they used to inform parents about providing official immunisation certificates, the problems of collecting and interpreting certificates, and the difficulties reported by parents. Immunisation certificates held by the school were inspected and compared with the data sent by schools earlier in the survey.

RESULTS

Postal survey

Of the 73 primary schools in the former Eastern Sydney Health Area, the principals of 69 schools (95 per cent), representing 2,829 children, returned their questionnaires within four weeks. These indicated that 2,340 children

(83 per cent) had official immunisation certificates, while 489 had not provided a certificate. Of the 2,340 immunisation certificates, 2,135 (91 per cent) recorded complete immunisation, while 205 recorded incomplete immunisation. According to information provided by schools, 48 of the 205 children with certificates recording incomplete immunisation were recorded as not having received measles vaccination and 90 children as having incomplete pertussis immunisation.

Record review

In an inspection of the records held by the 10 randomly selected primary schools with 392 kindergarten children, we found that 326 children (83 per cent) had official certificates, of which 303 (93 per cent) recorded complete immunisation. Of the 23 children with incomplete certificates, six were incomplete for measles vaccination and 22 for pertussis vaccination. The remaining 66 children (17 per cent) had not provided an immunisation certificate.

Interviews with school principals

Principals provided information on difficulties in collecting the immunisation certificates in both phases of the survey. Principals of four of the 10 schools visited were completely unaware of their responsibilities under the Act, and two did not know of the *Procedure Manual*. Six accepted the *Personal Health Record* in place of an immunisation certificate, and one accepted other forms of documentation, including letters from doctors or foreign documents. In four schools parents had needed a number of reminders to provide the certificate, and five reported having had to ask their doctors repeatedly to issue certificates. Finally, certificates, when issued, were often filled in incorrectly. For example, some had the 'Complete' box ticked alone or the last box for each vaccine type. In other cases, the 'Complete' box was ticked, but there was no tick in the fifth diphtheria, tetanus and pertussis boxes.

School staff (who had no expertise in interpretation of the immunisation schedule) felt required to make a judgment about the meaning of these incorrectly completed certificates and other forms of documentation.

DISCUSSION

According to school principals, 91 per cent of Eastern Sydney kindergarten children were fully immunised (the 'minimum estimate' figure was 76 per cent if all children without certificates were considered unimmunised – an unlikely situation²). This compares with 95 per cent (minimum estimate, 79 per cent) in Northern Sydney public schools³; 90 per cent (minimum estimate, 71 per cent) in Central Coast children²; and 57 per cent (minimum estimate, 41 per cent) in Auburn municipality⁴. In Eastern Sydney, return rates and completion rates were slightly higher than the 1994 survey¹, possibly because the present survey was carried out later in the school year. A further important finding from the record review was an uptake of 98 per cent for measles and 93 per cent for pertussis vaccination (81 per cent and 77 per cent respectively, if those without records were considered unimmunised).

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FIGURE 1

NSW HEALTH DEPARTMENT
IMMUNISATION CERTIFICATE
for Primary School Enrolment

School Copy

CHILD'S PERSONAL DETAILS

NAME: _____ DOB: _____
SURNAME GIVEN NAMES

ADDRESS: _____

POST CODE: _____

SCHOOL: _____

SECTION A: COMPLETE IMMUNISATION

Please tick appropriate boxes indicating number of DOSES administered

(DOSE)

DIPHTHERIA	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
TETANUS	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
PERTUSSIS (Whooping Cough)	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
POLIO	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>	
MEASLES or Measles/Mumps/Rubella	1 <input type="checkbox"/>				

COMPLETE ☐ (Please tick OR if incomplete, go to section B)

SECTION B: INCOMPLETE IMMUNISATION

Please tick the reason why the child has not been fully immunised:

Medical contraindication <input type="checkbox"/>	Religious objection <input type="checkbox"/>
Conscientious objection <input type="checkbox"/>	Other: <input type="checkbox"/>

ISSUER'S DECLARATION

(Please tick appropriate box)

I certify that:

I have sighted all appropriate documentation to issue a Complete Certificate (Section A) ☐

OR I have issued an Incomplete Certificate and I have explained that, in the event of an outbreak of a vaccine preventable disease, the unimmunised child will be excluded from attending school for the duration of the outbreak. (Section B) ☐

DOCTOR/ISSUER'S NAME: _____

ADDRESS: _____

TELEPHONE: _____

SIGNATURE & STAMP: _____

DATE: _____

TABLE 6

SCHOOL PRINCIPALS' REPORTS OF IMMUNISATION CERTIFICATE DATA FOR YEAR 1 AND YEAR 2 CHILDREN, 1996 COMPARED WITH SWSPHU ASSESSMENT

School principal's assessment of immunisation status	Number of children	Percentage
Complete	638	88
Incomplete	22	3
No certificate	61	8
Total	721	100
SWSPHU assessment of immunisation status	Number of children	Percentage
Complete	368	60
Incomplete	56	9
No certificate	183	30
Total	607	100

enrolments) was available for review. The loss of 114 children from follow-up is likely to reflect migration from school to school; principals reported migration rates ranging from under 5 per cent to almost 40 per cent, with the higher rates tending to occur in areas of high public housing.

Among the 607 children available for the validation study, the SWSPHU found that only 60 per cent had certificates showing complete immunisation, compared with the figure of 88 per cent obtained from school principals. The fact that principals reported only 8 per cent as having no certificate, while SWSPHU found that 30 per cent had no certificate, indicates that principals tended to accept documentation other than the official immunisation certificate form.

Schools in one local government area in the SWSAHS did not respond to the questionnaires. The council had been an active participant in immunisation and had conducted an immunisation review in schools just months before our survey. Principals of the schools in this LGA may have been reluctant to respond to our questionnaire because they had recently provided information for the other survey.

Our results suggest there is a need for the NSW Health Department to work with the Department of School Education to ensure children's immunisation certificates are correctly interpreted.

Despite school principals' problems of interpretation, it appears that correctly interpreted immunisation certificates have the potential for identifying localities with low immunisation rates.

1. NSW Public Health Act 1991.

2. Leckie R, Shah S, Jalaludin B. School entry immunisation certificates: a useful tool for immunisation surveillance? *Communicable Diseases Intelligence* 1996; 20:6-8.

The NSW Health Department has had discussions with the Department of School Education about practical aspects of implementation of the immunisation provisions of the Public Health Act 1991. These discussions will continue in the light of the Health Department's proposed 1997 evaluation of compliance with the immunisation provisions.

— EDITOR

Administration of immunisation provisions

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For comparison, the 1995 Australian Bureau of Statistics survey *Children's Immunisation Australia* found that 94 per cent of five-year-old children were immunised against measles and 68 per cent against pertussis⁵.

Telephone and site interviews with school staff revealed difficulties faced by schools and parents. There was some misunderstanding of issues surrounding the Act, including notification requirements for vaccine-preventable diseases and exclusion procedures. In relation to documentation, some schools were not clear about their obligation to collect official immunisation certificates and the role of general practitioners as the main providers of certificates. A major finding of this and other surveys has been the reliance by some schools on documents other than the official certificates, and the large number of certificates which was completed incorrectly^{2,4}. Despite insufficient expertise, school staff felt obliged to interpret these documents. As a consequence, school records of immunisation status are likely to contain some inaccuracies.

CONCLUSIONS

The value of immunisation certificates as reminders to parents is clear. Sole reliance on the certificates as an accurate source of information on immunisation coverage and status during an outbreak would require strategies to increase understanding and cooperation among schools and immunisation providers. Such strategies might include simplifying the certificate form, providing certificates to schools for distribution to parents, and further education of parents, providers and primary school staff on the rationale and requirements of the Act.

ACKNOWLEDGMENTS

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1. Ferson MJ. Census of school entry immunisation certificates, Eastern Sydney, 1994. *NSW Public Health Bulletin* 1995; 2:9-10.

2. Watt PD. An evaluation of 1994 school entry immunisation certificates on the Central Coast of New South Wales. *J Paediatr Child Health* 1996; 32:125-131.

3. Rixon G, Hort K, Liddle J. School entry certificate survey, Northern Sydney Area. *NSW Public Health Bulletin* 1994; 5:92.

4. Leckie R, Shah S, Jalaludin B. School entry immunisation certificates: A useful tool for immunisation surveillance? *Communicable Diseases Intelligence* 1996; 20:6-8.

5. Australian Bureau of Statistics. *Children's immunisation Australia, April 1995*. (Cat No 4352.0) Canberra: Australian Bureau of Statistics, 1996.