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– Contents –

Immunization Survey - Taipei County

During the period March 11-17, a survey was conducted in 9 urban townships in Taipei County to determine immunization rates among children 12-23 months of age. Thirty clusters of 100 households each were randomly selected from township household registration offices, and interviewers visited all households in each cluster[1]. All household residents in the target age group, whether registered in Taipei County or townships in other counties, were included in the survey. Immunizations counted were those verified by immunization cards or health station records. Children were counted fully immunized if they received all of the following vaccines: one dose of BCG, three doses of DPT and polio, and one dose of measles.

Among the 3,241 household visited, 198 children 12-23 months of age were identified mean=6.6 per cluster; range=1-12 per cluster). Among these, 151 (76%) were registered in Taipei County, and 47 (24%) were registered in townships in other counties. The immunization rates by antigen, dose, and place of registration are shown in Table 1. The rate of immunization with measles vaccine (73%) was the lowest of all antigens. Only 72% of all children surveyed were fully immunized. Immunization rates for all antigens were lower among children living but not registered in Taipei County. The most common reason given for a child not to be fully immunized was a minor illness at the time the immunization was due (44%).

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Editorial Note: The townships included in this survey surround the Taipei metropolitan area and were selected because they contain a large proportion of recent migrants from rural areas[2]. In many instances, recent urban migrants do not consider their move permanent, and therefore do not change their permanent registration to their new address.

Table 1 Immunization rates by antigen for 198 children 12-23 months of age residing in Taipei County, March 1986.

	Registered in Taipei Co. (n=151)		Registered in Other Co. (n=47)			
Antigen	Immunized	Rate	Immunized	Rate	Total	Rate
BCG	130	86%	35	76%	165	84%
DPT-1	130	86%	35	76%	165	84%
DPT-2	127	84%	35	76%	162	83%
DPT-3	126	83%	34	74%	160	81%
Polio-1	130	86%	35	74%	165	84%
Polio-2	127	84%	35	76%	162	83%
Polio-3	126	83%	34	74%	160	81%
Measles	113	75%	31	67%	144	73%
Complete	111	74%	31	67%	142	72%

Health stations depend on the household registration system to identify and track infants for the immunization program. Families living in areas where they are not registered are unlikely to be notified by local health authorities that their children are due for an immunization, and, as we have demonstrated in this survey, children in such families tend to be less well immunized. Failure to change the registration to a new residence also makes it difficult for local health authorities to determine immunization rates since, without accurate registration data, it is not possible to know how many infants require immunization in a specific area during a given time period. We know from the recent survey in Yun Lin County, local health authorities tend to exclude rather than follow-up children wh are registered in their areas but reside elsewhere[1]. This results in artificially high estimate of immunization rates and produces a false sense of security. To improve this situation, more effort is required by local health authorities to follow-up children not living at their registered addresses and ensure they are fully immunized. Parents with infants who intend to move should notify their local health station and provide a new address if they do not wish to change their permanent registration. Health stations in urban areas which immunize children registered in other townships should always notify the local health station where the child is registered.

The problem of missed immunizations is a serious one that has important implications for the protection of the individual child as well as for the prevention of epidemics among the general population The immunization rate for measles vaccine was the lowest of all antigens in both Taipei (73%) and Yun Lin (79%) Counties[1], and at these levels, is inadequate to prevent outbreaks. Measles still causes significant mortality and morbidity in Taiwan, and is a serious disease despite the prevalent local belief that measles is a normal childhood illness. Measles vaccine is one of the safest and most effective vaccines