

CRISIS BULLETIN

- INDONESIA IN TRANSITION -

**Mass measles immunization campaign
successfully linked to vitamin A
supplementation month in urban areas**

Routine immunization programs have been used in many countries as a contact point for delivering vitamin A supplements to preschool age children. In Indonesia, a novel pilot project conducted in August 2000 reversed this strategy and linked a mass measles immunization campaign to the well-established vitamin A supplementation month. The success of this experience demonstrates that this approach can be an effective component of the national strategy for eradicating measles.

Vitamin A deficiency and measles are two preventable causes of childhood morbidity and mortality in Indonesia. In many areas of the country, successful programs are being implemented to control vitamin A deficiency and maintain high measles immunization rates. However, despite these efforts, certain high-risk areas still exist where measles immunization rates are low and measles outbreaks may occur.

This bulletin describes a pilot project that took place in August 2000 to combine a mass measles immunization campaign in urban poor areas with the well-established vitamin A supplementation month for children. Prior to the August 2000 vitamin A distribution month, areas in Jakarta, Surabaya, Semarang and Makassar that were likely to be at high-risk of a measles outbreak were identified. The pilot project was conducted jointly by the Directorate of Community Nutrition and the Directorate of Epidemiology Surveillance and Immunization of the Ministry of Health and Social Welfare (MOH & SW) with

the financial and technical assistance of Helen Keller International (HKI) and the United Nations Children's Fund (UNICEF).

Measles immunization crash program

Measles can be prevented by immunization programs. The national guidelines in Indonesia recommend that all children get a measles immunization when they are 9-11 months old. The majority of children receive immunizations through the Posyandu system (integrated health post), Puskesmas (Public Health Center), hospitals or private clinics. However, some children are not reached through these existing systems and may remain unvaccinated throughout the rest of their lives. Measles can kill and additional strategies are needed to improve immunization rates, especially in areas at high risk of a measles outbreak.

In order to reduce the number of unvaccinated children, to



Background information: Measles

Measles is an acute viral disease that is rapidly transmitted from one person to another. The disease causes a characteristic reddish rash all over the body and is often accompanied by a fever, diarrhea, and rapid weight loss. Measles can be a very serious disease, especially in children. Some children who get measles develop severe eye infections and may even become blind. Even in a mild case of measles it can take several months for a child to regain all the weight he or she lost, for his or her immune system to return to normal, and to fully recover from the disease. Unfortunately, some children (approximately 1-2%) who get measles will die even if they receive treatment when they are sick. Therefore, the best way to protect children's health, eyesight and lives is to prevent them from getting measles.

prevent measles outbreaks, measles with eye complications, and measles mortality, the MOH & SW has decided to implement a special measles "crash program" in 2000-2001 for high-risk areas. This program involves identifying high-risk areas and then vaccinating all susceptible individuals within a very short time frame. For example, where a measles outbreak occurs, international guidelines recommend that all children from 6 months to 5 years of age in the area receive a measles vaccination whether or not they have been vaccinated in the past. Because measles is a very contagious disease, any unvaccinated people remain at risk of becoming infected. Providing immunizations in this situation will help protect individual people from getting measles, becoming ill, and potentially spreading the disease to other people.

In many cases, preschool children who live in high-risk areas for measles are also at risk of vitamin A deficiency. Routine vitamin A supplementation is currently recommended for all children 6-59 months of age twice a year (in February and August) in order to promote good nutritional status and to prevent severe morbidity and mortality in children. Although routine vitamin A supplementation does not prevent children from getting measles, several large-scale, well-controlled studies have shown that children who received vitamin A supplements and then later got measles were 50% less likely to die than the children who did not receive vitamin A supplements before they got measles.



Figure 1. Implementation guidelines for the vitamin A and immunization post health workers

The main reason to link measles immunizations and vitamin A supplementation is to reach the same group of at-risk children with both of these effective prevention programs in a cost-effective manner. Vitamin A supplements can be safely given to preschool age children at the same time they receive a measles immunization. Because the same logistics system can be used to organize and deliver measles immunizations and vitamin A capsules, combining these programs will save valuable time, money, and effort compared to implementing each one of them separately.

Urban pilot project in August 2000

The goal of the pilot project was to capitalize on the success of vitamin A supplementation activities that routinely take place in the Posyandu (integrated health posts) every February and August in Indonesia. In recent years, a variety of mass media and social mobilization activities have taken place around the country to promote these two months as "vitamin A distribution months." Special efforts are made to ensure that adequate supplies of vitamin A capsules are available at the Posyandu and Puskesmas facilities, that health workers know how to administer

the vitamin A capsules, and that community members know they can bring their 6-59 month old children to the health facilities during these months and receive vitamin A capsules at no cost.

The pilot project was designed to build on these existing activities and promote both vitamin A supplementation and measles immunization in the urban areas during the August 2000 vitamin A distribution month. While the same general approach was used for the different locations, specific implementation plans were developed for each city. In general, the teams (consisting of staff members from the Directorate of Community Nutrition and the Directorate of Epidemiology Surveillance and Immunization) ensured that adequate supplies for both vitamin A supplementation and measles immunizations were in place, and that special training and social mobilization activities occurred.

Slightly different methods were used to implement the pilot project in the different cities. For example, in Jakarta, the project was organized to conduct a joint vitamin A supplementation and immunization campaign on August 1. Families were encouraged to bring their children to the designated health posts on that day to receive a vitamin A capsule and measles immunization. The next day, health workers traveled door-to-door to locate children who did not visit the health posts the day before and provided these services to the children at home. In Semarang, the special immunization activities for all children aged 6 months to 5 years were integrated into the regular posyandu activities during August. These two different strategies were chosen by the city organizers in order to make good use of the existing

personnel in their locations. High immunization and vitamin A coverage rates were achieved in both locations.

The methods used to implement this pilot project will be evaluated further by the Ministry of Health, UNICEF and HKI and the lessons learned will be applied to similar activities in the future.

Pilot project achievements

- An implementation plan was developed (ie. timeline, logistical plan, training materials, etc.) that can be adapted for use in other urban settings, refugee situations, or measles outbreak areas.
- The working relationship between the Directorate of Community Nutrition, the Directorate of Epidemiology Surveillance and Immunization, HKI and UNICEF was strengthened at the central, provincial, and city levels.
- Community awareness about the routine vitamin A supplementation month, Posyandu activities, and measles immunizations was increased in Jakarta, Surabaya, Semarang, and Makassar.
- Vitamin A supplements and measles immunizations were delivered to more than 80,000 children in the urban poor areas of four cities.
- This pilot project successfully reached over 99% of the targeted number of children.

High-risk areas for measles

The Ministry of Health and Social Welfare has declared the following areas and situations in Indonesia to be at high-risk for measles outbreaks:

- 1) Urban slum areas because of crowded living conditions and a low access to and utilization of health services
- 2) Refugee situations because of crowded living conditions, the presence of other diseases, and the disruption of regular health care services
- 3) Areas surrounding a measles outbreak, which is defined as two or more cases happening in a localized area during a one-week timeframe, because an outbreak indicates that other people in the area are also likely to be unvaccinated and therefore susceptible to measles.

Conclusions and recommendations

- The criteria for identifying urban areas that are at highest risk of a measles outbreak should be further developed in order to ensure that the most vulnerable children are reached by similar activities in the future.
- The Directorate of Community Nutrition and the Directorate of Epidemiology Surveillance and Immunization should develop a plan for prioritizing where to replicate this type of an activity during routine vitamin A supplementation months (February and August) in other areas of the country at high-risk of a measles outbreak.
- The strategy of combining measles immunization with vitamin A capsule distribution has potential to be an effective and efficient strategy to eradicate measles outbreaks.



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