Strengthening Vietnam’s immunization program

Vietnam is proud of its National Expanded Program on Immunization (NEPI), and with good reason—NEPI has achieved coverage levels well above 90 percent for many years. At the same time, the program understands that there is always room for improvement. That is why PATH, in close partnership with NEPI, has worked since 2003 to increase the quality, safety, and efficiency of immunization services.

Much of the work has been done in Ha Tinh and Thanh Hoa provinces, but PATH also collaborated with NEPI at the national level to update and improve policies, train staff, and increase community knowledge and demand for vaccination.

**IRIS project**

With PATH’s help, Vietnam is increasing the quality, safety, and efficiency of its national immunization program with the IRIS project: Improving Routine Immunization Services. The overall approach consists of testing province-wide systems improvements, identifying best practices, and encouraging other provinces to adopt them. Ha Tinh and Thanh Hoa provinces were chosen as pilot provinces because of their diverse geographic and socioeconomic conditions.

**Updating vaccinator skills and knowledge**

Because staff turnover is high, health workers required refresher training—updating skills and knowledge became a top priority. Sixty-three provincial and district-level staff received extensive technical updates and training as trainers. For the first time, they experienced and mastered interactive training methodologies based on established principles of adult learning. Equipped with their new skills, the managers in turn conducted three-day trainings for commune and district health staff.

Training topics included hepatitis B vaccine introduction, injection safety, vaccine management, and microplanning. The sessions were evaluated very positively by trainees across the board.

Vietnam has since expanded this training to five additional provinces: 215 master trainers have trained 3,396 provincial, district, and commune health workers and 3,520 village health workers. In addition, all medical schools in Vietnam were retrained in vaccination skills; those trained included 18 professors from medical universities and 82 teachers from secondary medical schools.
Developing new and more effective supervisory systems

Supervising health workers in Vietnam used to mean traveling infrequently to commune health centers and looking for mistakes. This approach encouraged staff to hide problems, not solve them. But in five districts of Ha Tinh Province, managers adopted a different, “supportive supervision” approach. Supportive supervision is designed to improve program quality and performance through collegial problem-solving, on-the-job training, routine coaching, and use of standardized supervision checklists. The new system was so well received that the government decided to expand it to the entire province. Recently, UNICEF asked NEPI to help the national nutrition program integrate supportive supervision into their activities.

Ensuring vaccine potency and reducing wastage

Most vaccines must be stored at 2 to 8 degrees Celsius to ensure potency. Although vaccine vial monitors—labels that change color when exposed to heat over time—help ensure that staff do not use any heat-compromised vaccine, studies conducted by the NEPI and PATH in two provinces suggested that vaccine freezing may have been a problem.

PATH worked with government health workers to adapt training and point-of-storage instructions to improve refrigerator monitoring and mitigate the problem. Because health workers also reported having difficulty understanding the English-language expiration dates printed on vaccine vials, PATH created and distributed 12,000 simple translation sheets designed to be attached to vaccine carriers nationwide.

A birth dose of hepatitis B vaccine

The hepatitis B vaccine is now available nationally. However, protecting newborns within a day after birth to prevent mother-to-child transmission—a World Health Organization recommendation—remains a daunting challenge because most commune health centers do not have refrigerators to store the vaccine.

PATH pilot-tested a birth dosing system that has proven successful in other countries. Because the hepatitis B vaccine is not highly heat sensitive, it can be kept at tropical room temperatures for up to one month. A pilot study in Thanh Hoa Province assessed the impact of storage of the vaccine out-of-the-cold-chain.

An evaluation of the strategy—including blood testing to confirm that the out-of-the-cold-chain vaccines effectively conferred protection—was conducted near the end of 2005. Before this project, only 45 percent of infants received the birth dose within 72 hours; afterward, 83 percent received their first dose within 24 hours, without compromising vaccine effectiveness. Commune health staff are positive about the system for two reasons: they no longer have to travel to the district store to pick up the vaccine every time a child is born—saving time and effort—and more children are being protected, more rapidly, than ever before.

Improving injection safety with needle removers

Contaminated needles and syringes can pose a serious health problem in the community if they are not properly disposed of after use. Simple, hand-operated devices called needle removers quickly and cleanly separate needles from syringes and secure the sharps in puncture-proof containers. NEPI and PATH decided to assess the potential of using needle removers in Vietnam.

A six-month pilot project was initiated in Ha Tinh Province, where 98 injection providers in eight communes were trained to use needle removers immediately after providing injections. Evaluation results at the end of the study period showed that 93 percent of health workers surveyed approved of the needle-removers and wanted to continue using them. They felt that needle removers were an appropriate solution to the problem of sharps waste at the commune level.

Impact: present and future

Thanh Hoa and Ha Tinh were selected as model provinces where NEPI, with support from PATH, could test, modify, and promote best immunization practices. The goal was to pilot new models and expand successful projects nationwide. Many of the models tested during the IRIS project have been expanded, and NEPI and the Vietnamese Ministry of Health are advocating the adoption of other modeled interventions.

More information

For more information, please contact vietnam@path.org or info@path.org.