

## Improving delivery of nevirapine for infants

Research has shown single-dose nevirapine (NVP) to be a low-cost, effective therapy for reducing mother-to-child transmission (MTCT) of HIV-1. The single-dose therapy includes a NVP tablet taken by the mother at the onset of labor and NVP syrup given to the infant within 72 hours of birth. The high numbers of births outside of the health care system, the timing for the dose, and the limited reach of antenatal care (ANC) and prevention of MTCT services (PMTCT) has made widespread use of NVP for infants in developing countries a challenge. Recently, PMTCT programs have begun giving the NVP tablets to HIV-positive pregnant women during ANC visits to take home so they have the tablet when labor begins. Fewer programs, however, have been providing the infant dose of NVP syrup to take home, due in part to the lack of a simple and safe single-dose package.



Photo: PATH, Mike Wang

### Innovative packaging

Improving single-dose packaging of NVP syrup for PMTCT programs is the primary objective of a public-private partnership among USAID, Boehringer Ingelheim (BI) (manufacturer of Viramune® brand NVP), and PATH. PATH identified and evaluated the function and acceptability of single-dose packaging options, BI tested the physical compatibility of these options with their NVP syrup, and USAID provided funding and guidance on field needs. This collaboration resulted in a solution that underwent a 4-month pilot introduction in Kenya. PMTCT clinics were provided with supplies of two components—Exacta-Med® oral-dosing syringes and self-sealing foil laminate pouches designed by PATH to surround and protect the dispenser once a nurse fills it with the infant dose of NVP syrup. The pouch was also labeled with pictorial instructions as well as expiry information to remind the pregnant woman of proper use if she gives birth outside the health care system.

### Pilot project

From February to June 2006, PATH worked with Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) and the National HIV/AIDS Control Program of Kenya to pilot the introduction of the NVP infant-dose pouch in five provinces in Kenya (Eastern, Central, Western, Nyanza, and Rift Valley). The objective of the pilot was to evaluate the introduction and use of the NVP infant-dose pouch in order to demonstrate use in health facilities providing PMTCT services, assess provider and HIV-positive pregnant women acceptability, and evaluate ease of use. During the 4-month pilot period, 53 health workers were trained and provided services and 543 pouched doses of NVP syrup were provided to HIV-positive pregnant women before giving birth. Product acceptability was high among mothers, providers, and facility managers. Providers reported the pouch was easier to use and took less time than previous ad-hoc packaging and they felt they were providing better services as a result. Mothers reported the pouch was easy to use and the instructions were easy to understand. The NVP infant-dose pouch will be introduced throughout Kenya by the end of 2006 as a result of this pilot project.

PATH developed a set of resources to support organizations considering introduction of the NVP infant-dose pouch into their PMTCT programs.

- Sourcing guide: The nevirapine infant-dose pouch for use in prevention of mother-to-child transmission of HIV/AIDS programs
- Training manual: Guide for training providers on packaging nevirapine oral suspension using the nevirapine infant-dose pouch
- Instructions for health workers: Nevirapine infant-dose pouch job aid

All are available for download and adaptation from [www.path.org](http://www.path.org).

**PATH improves the health of people around the world by advancing technologies, strengthening systems, and encouraging healthy behaviors.**

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