

Clean-Delivery Kits

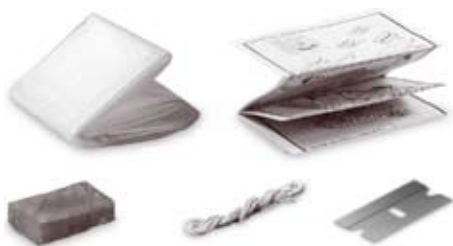
Guidelines for their use in programmatic settings

Each year about 60 million women in developing countries give birth with only the help of an untrained attendant or family member or with no help at all.¹ Many of these deliveries take place at home, where the risk of infection is high. Some 1,600 women per day die from complications associated with pregnancy or childbirth, and infection is a leading cause.² Around 950,000 newborns per year die from infection, according to the World Health Organization (WHO).³ Research conducted by PATH in Nepal and Tanzania suggests that many of these infections can be avoided when clean-delivery kits are used.^{4,5,6}

Kit contents

Kit contents should be clean, new, and packaged in a clearly labeled plastic bag or cardboard box that is adapted for the local culture. A basic clean-delivery kit should include the following five essential elements:

- A piece of soap for cleaning the birth attendant's hands and the mother's perineum.
- A plastic sheet about one square meter for use as a clean delivery surface.
- Clean string for tying the umbilical cord (usually two pieces).
- A clean razor blade for cutting the cord.
- Pictorial instructions that explain how to use each item in the kit.



Sample kit contents.

Many programs also include gloves in the delivery kit to reduce disease transmission from blood exposure during childbirth. Gloves are particularly appropriate in regions where the prevalence of HIV, hepatitis B, or hepatitis C is high. If gloves are included, the kit should also provide instructions on correct use of gloves. While additional items such as gauze may prove useful, they also increase kit costs. The inclusion of any nonessential components should be carefully considered in light of such issues as added cost, local health needs, and intended users.⁷

Evaluating the effectiveness of delivery kits

To evaluate the impact of delivery kits, PATH conducted a study in partnership with the National Institute of Medical Research and the Tanzania Ministry of Health with funding from USAID



Example of a pictorial insert for kit.



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Principles of clean delivery

According to WHO's six principles of cleanliness at birth,⁸ "The hands of the birth attendant must be washed with water and soap, as well as the perineum of the woman. The surface on which the infant is delivered must be clean. Instruments for cutting the cord and cord care (razor blade, cutting surface, cord ties) should be clean. Nothing should be applied either to the cutting surface or to the stump. The stump should be left uncovered to dry and to mummify." The six principles of cleanliness include:

- Clean hands.
- Clean perineum.
- Nothing unclean introduced into the vagina.
- Clean delivery surface.
- Clean cord-cutting instrument.
- Clean cord care (including cord ties and cutting surface).

through PATH's HealthTech program. Researchers enrolled 3,262 pregnant women during prenatal visits at local health centers in Tanzania's Mwanza Region. Trained health workers visited mothers and their newborns on the fifth day after birth, conducted structured interviews with mothers, and examined the infants for infection. Results were adjusted for location of delivery, duration of labor, whether any substances were put on the cord stump, and whether a woman had a bath before delivery.

The data suggest that use of clean-delivery kits, especially when the mother bathes before delivery, is a worthwhile and effective intervention. Newborns of mothers who used a kit were 13 times less likely to develop cord infection than were newborns whose mothers did not use a kit. The mothers themselves were three times less likely to develop puerperal sepsis, or genital tract infection, after childbirth. The probability of developing infections was smallest when the kit was used and mothers had bathed.

Producing delivery kits locally

Producing delivery kits locally provides an opportunity to tailor kit contents to the local health care context and culture. When producing kits locally, it is important to assess the availability and cost of raw materials, use qualitative research to understand traditional birth practices, and budget and plan for establishing assembly, storage, distribution, promotion and monitoring activities. Before initiating the production

of basic delivery kits, it is important that programs determine the level of local support, identify appropriate program goals, objectives and indicators. Integrating basic delivery kits into the existing health care infrastructure may help ensure effectiveness and sustainability.⁷ If social marketing of the delivery kit is planned, then conducting a needs assessment and market research before initiating production can reveal important information regarding price, brand names, kit contents, packaging, and promotional materials.

For guidance on how to make kits available by building the capacity of local organizations and small businesses to produce and distribute or sell delivery kits, see PATH's *Basic Delivery Kit Guide*, a step-by-step manual for developing kits, available at www.path.org/publications.



Ordering preassembled kits

UNFPA and UNICEF provide several delivery kits, including a single-use, disposable delivery kit for use by skilled birth attendants. Orders can be placed through UNFPA's Procurement Services in Copenhagen, Denmark. Contact Ann Janssens at janssens@unfpa.org, or go to www.unfpa.org/procurement/contact.htm.

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About PATH

PATH is an international, nonprofit organization that creates sustainable, culturally relevant solutions, enabling communities worldwide to break longstanding cycles of poor health. By collaborating with diverse public- and private-sector partners, PATH helps provide appropriate health technologies and vital strategies that change the way people think and act. PATH's work improves global health and well-being.

For more information, please visit www.path.org.

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April 2006