Basic Delivery Kit Guide

August 2001

Program for Appropriate Technology in Health
PATH’s Commitment to Improving Clean Delivery Practices

Program for Appropriate Technology in Health’s (PATH’s) primary mission is to improve health, especially the health of women and children. Since 1988, PATH has collaborated with ministries of health (MOHs) and nongovernmental organizations (NGOs) in Nepal, Bangladesh, and Egypt to improve clean delivery practices through basic delivery kit projects. These experiences—together with ongoing collaboration with international agencies and requests from NGOs and MOHs from all regions of the world—have revealed a profound need for a comprehensive resource that will assist maternal and child health (MCH) managers in developing culturally appropriate, effective, and sustainable basic delivery kit projects.

The Basic Delivery Kit Guide is an in-depth resource that will aid in developing delivery kit projects. Throughout the Basic Delivery Kit Guide, we emphasize that delivery kit projects are one component of comprehensive safe motherhood and clean delivery programs. They cannot be sustained without being initiated within the community and integrated into larger maternal and child health programs. Hopefully, as part of these programs, basic delivery kit projects will reinforce programs to reduce maternal and neonatal tetanus, puerperal sepsis, and umbilical cord infection.
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LIST OF ACRONYMS

BCC  behavior change communication
CBO  community-based organization
FGD  focus group discussion
IDI  in-depth interview
IEC  information, education, and communication
MCH  maternal and child health
MOH  Ministry of Health
NGO  nongovernmental organization
PATH Program for Appropriate Technology in Health
TBA  traditional birth attendant
TT   tetanus toxoid
UN   United Nations
UNFPA United Nations Population Fund
UNICEF United Nations Children’s Fund
USAID United States Agency for International Development
VSO  voluntary services organization
WHO  World Health Organization
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INTRODUCTION

Purpose of the Basic Delivery Kit Guide

Enhanced use of clean delivery practices in homes and maternity facilities can improve maternal and neonatal health in low-resource settings. To facilitate clean delivery practices, PATH has produced the Basic Delivery Kit Guide. Designed for maternal and child health (MCH) managers who wish to develop a basic delivery kit project as one component of their integrated MCH program, this guide provides comprehensive and practical information on the design, development, distribution, and promotion of single-use, disposable delivery kits. Work tools and case studies have been provided to further aid the development of basic delivery kit projects.

Basic Delivery Kits

The major focus of this guide is the single-use, disposable delivery kit containing essential components for clean delivery. For the purpose of clarity, this kit is referred to throughout the guide as the basic delivery kit.

Basic delivery kits can increase awareness and use of clean delivery practices. The kits are designed for use in the home by untrained and trained birth attendants (TBAs) and women delivering alone. Basic delivery kits contain supplies that are essential for supporting clean delivery practices and providing clean cord care immediately after birth. While basic delivery kits are designed for use in the home, they can also be used in resource-poor medical facilities such as health posts or health centers.

Basic delivery kit projects should be considered one component of a comprehensive safe motherhood program. In addition, the basic delivery kit should complement and be closely integrated with clean delivery programs and tetanus toxoid immunization programs in a combined effort to reduce maternal and neonatal tetanus and sepsis.

Contents of the Basic Delivery Kit Guide

The guide is divided into seven sections and an appendix:

- Section 1: Background
- Section 2: Deciding Whether to Develop a Basic Delivery Kit Project
- Section 3: Planning a Basic Delivery Kit Project
- Section 4: Kit Assembly
• Section 5: Kit Distribution and Promotion
• Section 6: Sustaining and Evaluating Basic Delivery Kit Projects
• Section 7: Recommendations and Conclusion

Sections 2, 3, 4, and 5 are followed by a set of work tools that kit project managers can use to design and implement the basic delivery kit project. These tools include focus group and interview guides, worksheets, procurement information, training curricula, and sample work plans. Many are either general guidelines or examples from specific countries, and may be adapted to meet local needs. Most of the instruments have been tested and used in actual basic delivery kit projects.

Examples from the field have been incorporated into the text.

**How to Use This Guide**

To maximize its utility, the *Basic Delivery Kit Guide* has been designed to be adapted to a range of program needs. While the guide focuses on large or national-level delivery kit projects, it can be adapted and applied to smaller projects on district or provincial levels.

• Managers of large-scale delivery kit projects will benefit from reviewing each of the guide’s sections. They may find the step-by-step guidelines and work tools particularly useful. The work tools can be used as the basis for a workshop to help MCH managers decide if local kit development is appropriate, or as instruments for a series of workshops to orient kit project development once the decision to produce kits has been made.

• Projects focusing on one or two health districts may wish to adapt sections, especially the work tools, to meet their specific projects needs. For example, smaller delivery kit projects may choose to limit the scope of activities by cutting out some phases of research, or by contracting with other agencies to conduct marketing, distribution, or retail activities.

• Professional organizations and academic programs may find the case studies useful as reference materials.

The manner in which the guide is used depends on the individual program manager and the objectives and resources of their clean delivery program.
Section 1

Background

Summary

Section 1 provides background information on the global incidence of maternal and neonatal tetanus, puerperal sepsis, and cord infection. These problems are directly related to unclean delivery practices, including use of unclean cord-cutting instruments and placing substances on the cord after cutting. In addition, the section provides information on:

- the ways in which basic delivery kits help alleviate these problems by supporting clean delivery practices;
- three types of kit financing, including fully subsidized, partially subsidized, and commercial kits;
- different types of delivery kits, including single-use, disposable kits, UNFPA and UNICEF kits, pre-assembled kits, TBA kits, and non-assembled kits.

This manual focuses on the basic delivery kit—a single-use, disposable kit intended primarily for home use.
### 1.1 The Problem

#### Maternal Mortality and Morbidity

Each year more than 600,000 women die from complications during pregnancy and childbirth.\(^1\) On average, there are as many as 480 maternal deaths per 100,000 live births in developing countries.\(^2\) Of these maternal deaths, 15 percent (90,000 women) result from puerperal infections, including 5 percent (30,000 women) from tetanus (Figure 1).\(^1,3\) The incidence of both puerperal infections and tetanus can be reduced through clean delivery practices.

#### Neonatal Mortality and Morbidity

Approximately nine million infant deaths occur each year. Of these, over half (53 percent) are neonatal, meaning that they occur during the first four weeks after birth, and more than one third (3.2 million) occur within the first week of life. Many of the neonatal deaths that take place after the first week result from events occurring during the period immediately before and after birth.\(^4\)

Tetanus and other infections are among the leading causes of neonatal mortality. According to the World Health Organization (WHO), 33 percent of all neonatal deaths are attributed to infections—principally neonatal tetanus and sepsis.\(^1\) Each year some 440,000 infants die of neonatal tetanus and other severe bacterial infections.\(^4\)

Infants with neonatal tetanus often have a concomitant cord infection caused by unclean delivery or unclean cord care practices.\(^5\) While increasing tetanus toxoid (TT) immunization coverage of pregnant women is the most effective way to reduce maternal and neonatal deaths that result from tetanus, TT vaccine provides no protection against other bacterial infections transmitted by unclean delivery practices.\(^4\)

One of the main factors contributing to the high incidence of neonatal and maternal tetanus and sepsis is that the majority of deliveries take place under unclean circumstances.\(^5\) Globally, almost two-thirds of births occur at home, and only half are attended by traditional birth attendants (TBAs).\(^6\)
Most Birth Attendants Have No Training

Each year an estimated 60 million women give birth with the help of an untrained TBA or family member, or with no help at all. Often the birth attendant is a relative or neighbor. In developing countries, an estimated 50 percent of deliveries are conducted by untrained TBAs who are poorly equipped to conduct the delivery. While TBAs are committed to positive delivery outcomes and perform some beneficial practices, they may unknowingly use harmful traditional practices. In addition, they may not have access to clean water or the supplies necessary for clean delivery. Infants delivered at home without a TBA and without hygienic precautions are at particular risk for tetanus and sepsis infections, as are their mothers.

In home deliveries where a trained provider assists, the provider usually is a TBA. Training TBAs in clean delivery techniques and the correct use of basic delivery kits can help improve delivery outcomes. Governmental support of clean delivery practices and training of TBAs is key to the success of this effort. In Nepal, Kenya, and Zimbabwe, for example, ministry of health (MOH) policies require that TBAs use basic delivery kits during home births.

1.2 Improving the Situation

Safe Motherhood Initiative

The Safe Motherhood Initiative was launched in 1987 by an alliance of international agencies committed to improving maternal health and reducing maternal mortality worldwide. The member agencies work together to raise awareness, set priorities, implement research and interventions, and share information. Specific program priorities identified by the Safe Motherhood Initiative include having: (1) skilled attendants present at birth; (2) access to midwifery care in the community; (3) access to essential

Basic Delivery Kits Must Be Part of a Comprehensive Strategy

Based on the conclusions of quantitative research in 1998 of a basic delivery kit in Nepal, PATH advocates “...where unhygienic practices are widespread, inexpensive basic delivery kits designed to suit local needs and tastes can contribute to a reduction in infection. ... If clean cutting implements are already used, special kits may not add much benefit. Although management of cord cutting is a critical step, what is put on the cord afterward in terms of foreign substances or cloth dressings is also important. The kit can provide the necessary components to make compliance with hygiene messages easier, but its value can be reduced if it is not part of a comprehensive strategy to reduce obstetric and newborn complications.”
obstetric care, including emergency services; (4) provision of integrated reproductive health care; and (5) a continuum of care.10

The initiative’s community focus is on behavior change strategies urging prevention of infection and clean delivery practices. This includes the reduction of harmful traditional practices, upgrading equipment in delivery rooms, and promotion of community-based health education activities. One way of supporting clean delivery practices in the community is the development of clean delivery programs that raise the awareness of local leaders, mothers, and pregnant women and their partners. Delivery kit projects can be developed as one component of integrated safe motherhood and clean delivery programs.

Reducing Tetanus and Other Infections

According to WHO, the United Nations Population Fund (UNFPA), and the United Nations Children’s Fund (UNICEF), in order to eliminate maternal and neonatal tetanus, it is essential that:

- three doses of TT vaccine be administered to at least 80 percent of all women of childbearing age in high-risk areas, and
- clean delivery practices be promoted and emphasized through health education.11

Tetanus elimination is a two-pronged approach—immunizing women with TT and improving clean delivery practices.11 The two interventions must be consistently integrated within maternal and child health (MCH) programs.

Additional protection of women from puerperal infection, and newborns from sepsis and cord infection, can be provided by:

- improving clean practices and ensuring clean equipment in health facilities;

Principles of Clean Delivery

According to WHO’s Six Principles of Cleanliness at Birth, “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).6
• improving clean practices in home deliveries by supporting the use of simple, disposable delivery kits; and
• promoting clean delivery messages in communities.6

The Cord Is Key

According to WHO, clean delivery and cord care mean observing principles of cleanliness throughout labor and delivery, and after birth until the separation of the cord stump.6 Clean cord care includes washing hands with clean water and soap before delivery, laying the newborn on a clean surface, washing hands again before tying and cutting the cord, cutting the cord with a clean instrument, and clean stump care.5

Cord infections frequently result from a lack of hygienic cord-cutting practices or inadequate care of the cord stump. Unclean household items such as scissors, knives, sickles, stones, broken glass, or used razor blades often are used to cut the cord. Because these items seldom are cleaned or boiled before use, they are likely sources of infection. While some cultural traditions—such as heating the knife over a fire before cutting the cord—may be beneficial, others are detrimental. For example, in areas of Malawi, the cord is cut using a peel from bamboo, reed, or sugarcane.12

To maintain a clean cord stump, the cord stump must be kept dry and clean. In addition, nothing should be applied to the stump; antiseptics are not needed for cleaning. In many cultures, unclean substances are traditionally placed on the cord stump. In Blantyre, Malawi, for example, untrained TBAs use their fingers to apply pressure to the cord, while in Nsanje, Malawi, untrained TBAs put rat, rabbit, or chicken feces, or dirt from the floor on the cord stump to prevent bleeding. To facilitate the healing process, substances such as salt, soot, juice from banana shoots, and spider’s webs also are placed on the umbilical stump.12 Harmful practices such as these should be discouraged and replaced with an acceptable substitute.6

Cord care is key to good neonatal care.
While clean delivery practices help lower the incidence of delivery-related infections, they do not affect postpartum infections caused by pre-existing reproductive tract infections in pregnant women. Reproductive tract infections such as gonorrhea are a common cause of sepsis. To prevent the advancement of infection, pregnant women should be screened and treated for these infections during prenatal visits.

1.3 Kits Contribute to Clean Delivery

Why Are Delivery Kits Important?

Delivery kits are one important step to improving clean delivery practices within integrated maternal and neonatal health programs. Delivery kits have several key objectives. When introduced as part of clean delivery programs, they contribute to the:

- promotion of clean delivery practices;
- reduction of maternal sepsis;
- reduction of neonatal tetanus, sepsis, and cord infection;
- reinforcement of maternal and newborn health programs; and
- provision of a convenient source of clean supplies.

In the home, supplies needed to conduct a clean delivery often are not available. Even where reusable delivery kits are used by trained TBAs, the instruments are seldom cleaned between deliveries, and necessary supplies such as clean cord ties may not be restocked.

WHO states that “The use of simple, disposable delivery kits will help achieve as clean a delivery as possible.” To this end, WHO recommends that a delivery kit should contain, at a minimum:

- a piece of soap for cleaning hands and perineum;
- a plastic sheet of about one square meter to provide a clean delivery surface;
- a clean razor blade for cutting the umbilical cord; and
- clean cord ties.

Clean Home Delivery Kit in Banjura, Nepal

The arrival of the Clean Home Delivery Kit and its promotion and distribution through CARE’s activities in Banjura has brought a considerable increase in the level of awareness of cleaner and safer deliveries, as well as actual behavioral change such as the use of a clean razor blade rather than a sickle for cord cutting.
These materials should be packaged in a box or sealed plastic bag with illustrated instructions on how to wash hands thoroughly before delivery and again before handling the infant’s umbilical cord, and on how to use other items in the package. The pictorial instructions are key to reinforcing clean techniques such as hand washing and to guiding correct use of kit components by kit users of all literacy levels.

The immediate benefits of supplying the essential items in one kit are:

- All the essential items are conveniently available at the time of delivery, decreasing the likelihood that unclean items will be used.
- All the materials are new, clean, and provided in adequate quantities.
- The use of single-use, disposable delivery kits by trained midwives may enhance the credibility of the kits in the community and encourage wider acceptance and use.

**Long-term Impact on MCH Outcomes**

Along with training of TBAs and community health workers in the correct use of the kit, the introduction of a basic delivery kit into an integrated MCH strategy can result in important long-term outcomes including:

- increased awareness of the importance of clean delivery practices by various kit users;
- increased number of clean deliveries;
- decreased incidence of cord infection that results in morbidity and mortality;
- improved links between health workers and TBAs;
- increased registration of pregnancies and births;
- monitoring of birth outcomes;
- introduction of income-generating activities; and
- financial incentives for TBAs.

Other long-term outcomes or benefits of kit introduction may become apparent over time. For example, kit introduction may encourage increased antenatal care visits or prompt increased referral of high-risk pregnant women to antenatal care due to increased TBA knowledge and awareness from training.

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**Impact of Locally Developed Kits on the Community**

In India, a 1991 case study by the Rural Women’s Social Education Centre (RUWSEC) on the development and use of kits showed that “[i]mpact of the use of simple delivery kits on health was . . . unexpected . . . the interaction between pregnant women and the workers of RUWSEC resulted in a heightened awareness of the need for special care during pregnancy and preparation for delivery.”

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Including Men in Delivery Kit Projects

Men play a critical role in the design, development, and sustainability of delivery kit programs. As village leaders, they are critical to community involvement. As husbands, fathers, and brothers of pregnant women, they often are invested emotionally in the outcome of deliveries. Within the family, men frequently are purchasers of household supplies and set priorities on the way scarce money is spent. They also may be distributors, wholesalers, or retailers of household supplies, including kits.

Because of this involvement, men should be included throughout the steps of a delivery kit project, such as:

- in the feasibility study, with respect to motivation to purchase;
- in the needs assessment, particularly with respect to kit price;
- as a key target group for promotional activities; and
- during the market test, if they are involved in the purchase and/or sale of the kits.

Men also should be included in awareness-raising efforts so they understand how basic delivery kits can contribute to the improved health of women and children.

Who Can Use Basic Delivery Kits?

Basic delivery kits can be used by mothers or anyone assisting with a delivery, including:

- mothers delivering alone;
- trained and untrained TBAs;
- occasional birth attendants such as relatives or neighbors; and
- midwives.
The use of basic delivery kits is becoming increasingly common in urban clinics and hospital settings that face severe shortages of supplies and equipment. In some situations, pregnant women purchase the kit during antenatal clinic visits and take the kit with them to the hospital for their deliveries.

### 1.4 Types of Delivery Kits

Delivery kits come in many different forms. They may range from simple cord-cutting kits used by untrained attendants in which the primary component is a clean razor blade, to comprehensive kits designed for trained TBAs and midwives that contain many items including scissors, fetoscopes, sutures, anesthetics, and flashlights. Factors that determine the contents of the kit include:

- the type and training of kit users;
- site of kit use;
- financial resources available for developing the kit;
- traditional practices related to delivery;
- various emergency situations that require basic, conveniently packaged medical supplies;
- medical policy of the country or the agency developing the kit; and
- local availability of raw materials for kit components.

#### Kits for Home Use

The kits designed for home use are easy to use and convenient, especially for women who are not trained as birth attendants. At a minimum, the essential items in these kits include a razor blade for cutting the infant’s umbilical cord, soap, cord ties, a plastic sheet, and pictorial instructions. The primary focus is clean cord care. Consequently, programs should not use the words “safe birth” to describe the basic delivery kit, because these kits do not address causes of neonatal and maternal mortality other than tetanus and sepsis.
Locally, these kits may be available through NGOs, MOH agencies, mothers’ groups, small retailers, or directly from the TBA performing the delivery. If not locally available, these kits can be ordered through United Nations (UN) agencies such as UNFPA and UNICEF. (For ordering information, see Work Tool 2.5.) Most kits are fully or partially subsidized by NGOs or local governments.

In October 1995, the Ministry of Health (MOH) of Burundi and the United Nations Children’s Fund (UNICEF) launched the Safe Home Delivery Assistance Program. The objective was to reduce the rates of postpartum infection and neonatal tetanus by improving hygiene of home births.

The program began in the southern province of Makamba, chosen because it had a high level of prenatal consultations at the time. Moreover, the health centers and personnel in Makamba were reliable, and supervision was possible because it was safe from effects of the civil war.

The program encouraged pregnant women to buy a delivery kit containing materials to use for births at home. Health center staff sold the kits only to women who sought prenatal screening and showed no significant health problems.

The women paid a token price (US$0.25) for the kit, which was only one-third of the actual market value. Health center staff used kit sale proceeds to cover transportation costs for obstetrical emergencies. This benefit contributed to community support of the home delivery kits.

In 1996, the program sold 2,000 kits, and eventually incorporated kit distribution into TBA trainings. Unfortunately, civil war in Burundi affected the province of Makamba and made it impossible to evaluate the program or to document lessons learned.

Despite the obstacles to evaluation, the MOH and UNICEF made supervisory visits and collected anecdotal evidence of kit users’ and health workers’ satisfaction. Based on these findings, program managers expanded the project to other provinces in Burundi.16
Kits for Use in Hospitals or Health Posts

Medical facilities are often presumed to have an adequate supply of clean delivery materials. In reality, such materials are frequently unavailable due to a general scarcity of supplies, poorly trained staff, or the pirating of supplies for use in non-obstetric services.

Although single-use, disposable delivery kits for home use have received considerable attention in recent years, hospitals and health posts also have a need for basic delivery kits—particularly kits that are designed for resource-poor facilities in both rural and urban areas.

Kits for use in hospitals or health posts should be stored and maintained in secure areas. They can be reserved for use by medical providers during deliveries or sold to women in advance of need, such as during antenatal visits or when they present for delivery.

Kits for Use in Refugee or Emergency Situations

UNFPA has designed single-use, disposable delivery kits for use in refugee camps and emergency situations such as wars, floods, and earthquakes. These kits are easy to transport and distribute in difficult situations that may lack trained birth attendants.

Pre-assembled Kits for TBAs and Midwives

Pre-assembled delivery kits for trained TBAs and midwives are comprehensive kits used during home deliveries. The most common pre-assembled kits are those supplied by UNICEF for both trained midwives and TBAs at the completion of training programs. These kits include core, reusable components (such as metal bowls and scissors), and one-time-use supplies such as cotton balls, gauze, and cord ties, which require resupply. A kit
may be configured to contain the type and quantities of equipment best suited to a particular MCH program’s needs; the midwifery kits described in the UNICEF catalog provide suggestions of possible combinations of kit components. They were designed so that the expendable supplies would be either replaced by country MCH programs or by the users themselves.

Unfortunately, the use of pre-assembled TBA and midwifery kits has been limited because:

- many items are not used, as TBAs and midwives fear losing or spoiling them, cannot afford to resupply them, or the items are not locally available;
- they are expensive, so not all TBAs or midwives receive them;
- some items are not used, as they are considered unnecessary for normal home delivery according to traditional practices, or because TBAs and midwives have not been adequately trained in their use;
- they are not made available to TBAs or occasional birth attendants who have not received formal training;
- it is difficult to keep the kit components clean, given the conditions in most villages; and
- equipment such as bowls or pans occasionally are taken for use in household chores.

Due to these limitations, the UN agencies have re-evaluated the design of their kits for TBAs and midwives, and are designing simpler, more economical kits for use in a variety of situations. These will replace the currently available kits in the near future. (See Work Tool 2.5, Ordering United Nations Kits.)

**Non-assembled Kits**

Rather than providing TBAs with pre-assembled kits, which may be costly or difficult to distribute, some NGOs provide instructions to women attending antenatal clinics regarding which items to gather for making their own single-use kit.
The financing of basic delivery kits may be fully subsidized, partially subsidized, or commercial in nature.

**Fully Subsidized Kits**

Most single-use, disposable delivery kits are fully subsidized. NGOs include the costs of development, distribution, and promotion in their annual budgets. Communities that promote fully subsidized kits distribute them free of charge to midwives, TBAs, and community health workers, often through training events at their local agencies. Some NGOs require that their trained TBAs use the fully subsidized kits and provide them with a quota of kits every month. Pregnant women may receive them free of charge when they attend antenatal clinics.

While subsidizing kits may help ensure their availability in communities, the subsidy itself may be problematic. In addition to reducing the perceived value of the kit, it can become a financial burden on the agency. As donor priorities change and funding becomes scarce, sustainability becomes a challenge.

**Partially Subsidized Kits**

Partially subsidized kits are sold at a price that does not fully cover the costs of production, promotion, and distribution. The project requires partial subsidy, because the producing agency cannot fully recover the costs from users.

In order to compensate for these unrecovered costs, the agency develops a range of activities including:

- negotiating in-kind contributions for kit promotion such as radio and television advertisements from UNICEF or UNFPA;
- increasing kit production and sales through reducing and, thus, subsidizing prices to the consumer;
- collaborating with other NGOs or government agencies to purchase and distribute the kit as part of their programs; and
- allocating part of the agency’s safe motherhood or child survival budget to support kit activities.

Much of the information in this guide refers to partially subsidized kits.
Commercial Delivery Kits

At a minimum, commercial delivery kit prices must cover all costs. They are sold to consumers at a price that ensures some profit to the producer. They are self-sufficient (i.e., not subsidized). However, the distribution and promotion efforts required for economic self-sufficiency are very time-consuming. There are few examples, if any, of successful, commercially viable, basic delivery kit projects. Basic delivery kit projects that are partially subsidized or commercial should be careful about “seeding” kits (that is, providing a limited number of free kits to generate awareness and interest in using the kit). When free kits are provided, people will expect them to continue to be free and will not want to pay for them. They may also value them less.
To increase the probability of clean deliveries and to decrease maternal and neonatal morbidity and mortality in Cambodia, the Reproductive and Child Health Alliance (RACHA) and UNICEF sponsored the pilot testing of a Home Birth Kit. The pilot test took place in four provinces from May through August 2000, in collaboration with the National Maternal and Child Health Center. The results indicated a high demand for kits; high acceptability by rural women, midwives, and TBAs; and correct use of kit contents. The agencies found that the kit could be most effectively marketed commercially through pharmacies, drug shops, and small stores using wholesale distribution channels.

The program is growing rapidly, with plans to strengthen and expand distribution. The Home Birth Kit includes a plastic sheet, non-sterile gloves, a sterile blade, string cord ties, soap powder, a fingernail brush, gauze, gentian violet, a pictorial instruction sheet, and a TT educational message advising women to seek TT immunization and antenatal care.

The kits are sold to TBAs, midwives, and Feedback Committee Members (village health volunteers) for use during outreach and private delivery visits to rural pregnant women who deliver at home. RACHA provides the kits to sellers who sell them for R3,000 (US$0.77), a price that is deemed reasonable and affordable by users. Periodically, Home Birth Kit monitors visit these sellers to collect R2,500 (US$0.64) for each kit sold and to resupply them with more kits (i.e., sellers keep a profit of R500 as an incentive). Kit production is still slightly subsidized, but the program is expected to become self-sufficient as larger quantities are produced.19,20 When the kit is endorsed by the Cambodian Ministry of Health, it can be included in the essential drug list and national distribution channels.
REFERENCES


