

BIRTHweigh III

Health need

Low birth weight is a well-known indicator of risk for newborn babies and is a major cause of infant mortality and morbidity in the developing world. Each year, millions of infants in developing countries are born underweight. Most babies are delivered outside of health facilities by nonliterate traditional birth attendants (TBAs) who may need appropriate tools to identify low birth weight newborns and follow up with appropriate care immediately.

Technology solution

In the mid-1980s PATH conducted a needs assessment of TBAs in several African countries, which resulted in the concept of an easy-to-use, yes/no indicator of low birth weight that could be used by relatively untrained midwives and TBAs. BIRTHweigh I, developed and field-tested by PATH in several countries, was subsequently adopted for use in Indonesia. The device allowed nonliterate birth attendants to identify low birth weight newborns (<2,500 grams) and then follow up with special care. BIRTHweigh I was designed for low-resource, in-country production; local economic development; and regional distribution. United Nations Children's Fund (UNICEF) currently distributes a similar scale under the brand name BebeWey.

BIRTHweigh II, developed in the early 1990s, is a revised version designed for modern manufacturing methods and features a tactile as well as a visual indication of birth weight. This model performed successfully when included in a comparative evaluation of BIRTHweigh I, II, and BebeWey in Egypt. Nonetheless, interest among manufacturing and programmatic partners became scarce and project development was suspended.

More recently, PATH designed the BIRTHweigh III to meet the need for correctly dosing newborns with gentamicin to prevent serious bacterial infections. Using the same technological platform as the second scale, this scale permits nonliterate birth attendants and community health workers to categorize newborns into three different weight categories (normal birth weight: $\geq 2,500$ grams; low birth weight: 2,000–2,499 grams; very low birth weight: <2,000 grams).

Current status and results

Prototypes of BIRTHweigh III were built and field tested in collaboration with the Saving Newborn Lives Project in both Nepal and India in 2004. Results from both of these studies concluded that the BIRTHweigh III scale classified infants into weight categories with a high degree of consistency and accuracy and that the scale is extremely practical and useful for resource-poor settings, especially those with low levels of literacy. Even though the BIRTHweigh III scale is not yet commercially available, PATH continues to receive requests from programs in low-resource settings interested in using it. In 2006, PATH produced a report detailing feasible commercialization options to ensure availability and access of the BIRTHweigh III scale. PATH is making the report available to manufacturers interested in commercialization opportunities.



Hand-held, portable, plastic, spring scale for measuring low birth weight.

The scale will be very useful in settings where community health workers are dealing with decisions about identifying low birth weight newborns.

Availability

For more information regarding this project, contact Patricia Coffey at pcoffey@path.org.

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