



## Increasing Access to Maternity Services in Rural Bangladesh: Sustainable Facility-Community Links

### WHAT IS FISTULA?

Obstetric fistula is a childbirth injury, usually occurring when a woman is in labor too long or when delivery is obstructed, and she has no access to a cesarean section. She endures internal injuries that leave her incontinent, trickling urine and sometimes feces through her vagina.

Fistula Care works to prevent fistula from occurring, treats and cares for women with fistula, and assists in their rehabilitation and reintegration. For more information about fistula and the Fistula Care project, visit [www.fistulacare.org](http://www.fistulacare.org).

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### Introduction

Skilled maternity care before, during, and after delivery helps to prevent maternal mortality and morbidity worldwide. Yet in Bangladesh, just 21% of pregnant women attend four or more antenatal visits. Home delivery is the norm, with 77% of women overall (Streatfield et al., 2011) and 89% of rural women opting to give birth at home (NIPORT, Mitra and Associates, & Macro International, 2009). Direct and indirect costs, perceived service quality, and cultural norms are among the many factors that contribute to low demand for facility-based maternal health care (Perkins et al., 2009).

EngenderHealth's Fistula Care project, which is funded by the U.S. Agency for International Development (USAID), partnered with two private hospitals in Bangladesh to improve access to essential maternal health services for women in rural, underserved communities:

- **The Ad-din Hospital for Women and Children** in Jessore (Ad-din/Jessore) is one of three nonprofit hospitals operated in Bangladesh by the Ad-din Foundation. It opened its doors in 1985, offering medical and surgical services uniquely to women and children. In 2010, Ad-din/Jessore served 283,510 outpatients and 14,230 inpatients at its 130-bed facility.
- **The LAMB Project** serves a population of nearly 1,000,000 in the northwestern Dinajpur and Rangpur districts. Since 1983, LAMB Hospital has offered general medical and surgical services, growing from 50 to 150 beds in the past 15 years. In 2010, the hospital served 55,000 outpatients and 9,000 inpatients. In addition to providing hospital services, LAMB runs an integrated community health and development program, a training center, a school, and numerous other initiatives.

The two programs are noteworthy for their efforts to ensure community ownership, with a sincere commitment to sustainability. One is integrated into a microfinance program to enable financial independence for the program; the other empowers community members to truly own and manage its services. Both exemplify sustainable programming and are showing results for improving women's access to the continuum of maternal health services.

### Background: Two Approaches to Offering Community-Level Services

#### *Ad-din/Jessore Satellite Clinics*

In 1990, Ad-din/Jessore launched a microcredit program in southwestern Bangladesh, providing small loans and basic health education to women in rural

communities. Over time, it became apparent that the women lacked adequate access to health services. In 1996, four of Ad-din/Jessore's microcredit program branch offices hired and trained paramedics to provide mobile health services and skilled birth attendance in underserved communities covered by the microcredit program. Since then, the program has expanded: Thirty female paramedics lead satellite clinics in 420 villages, targeting a catchment area of 150,000 households.

Ad-din paramedics hold satellite clinics once per month at a home volunteered by a community member in each village covered by the program. At each clinic, the paramedic leads a 30–45-minute health education session on topics ranging from maternal health to sanitation and common childhood ailments. Thereafter, she provides individual consultations for the women and children who attend. Services include antenatal care, postnatal care, growth monitoring, advice about nutrition and birth planning, family

planning counseling and provision of short-acting methods (e.g., condoms, pills, and injectables), and treatment

visitors plan and coordinate their health education efforts, ensuring that they cover the same topics each month in

**“These days, with the satellite clinics, there are fewer maternal deaths. People are learning about safe motherhood from the paramedics, and we see many fewer women dying during pregnancy and childbirth.”**

*— A trained TBA at Ad-din/Jessore's Jhikorgacha branch office*

for common illnesses, such as fever and diarrhea. When possible, the paramedic partners with a government field worker who provides child immunizations. Each paramedic has a three-wheel flat rickshaw and driver to assist with transportation, such as for referred clients.

Ad-din's paramedics work closely with 245 traditional birth attendants (TBAs) and 450 family health visitors, all trained by Ad-din/Jessore.<sup>1</sup> The paramedics and the family health

the sessions they lead. Supporting their efforts, each trained TBA conducts home visits to 300–450 households in their catchment area, visiting each household once in a two-month period. The trained TBAs and paramedics also assist with home deliveries and make postpartum visits. The TBAs' training focuses on how to deliver safely (e.g., washing hands, and using gloves and sterile blades), manage complications, and identify when to refer women to a health facility. Given the unsafe practices of many untrained TBAs, Ad-din's trained TBAs represent an important improvement.

Most clients hear about the satellite clinic services through word of mouth, typically through the microcredit program, a trained TBA, a family health visitor, or the clinic's host. Clients typically come to the clinic from a 1 km radius. Each client pays 10 taka (\$0.14), although the fee is waived if she is unable to pay.

### **LAMB Safe Delivery Units**

In 1981, LAMB Hospital started providing mobile health services through its community health and development program. By 1999, the mobile services were insufficient for the



*LAMB supervisors work with SDU staff to ensure quality services and troubleshoot problems.*

demand for community-level clinical services, and LAMB opened two health centers at fixed locations to provide first aid and primary health care, especially for mothers and children. Since then, LAMB has worked with communities to open a total of 28 health centers, of which 18 are safe delivery units (SDUs), which provide normal delivery care and referrals for obstetric complications. The 18 SDUs engage 60 skilled birth attendants, 200 community health workers, and 450 village health volunteers, reaching a population of 550,000 across three districts.

Ideally, each SDU is staffed by three skilled birth attendants<sup>2</sup> who assist normal deliveries and refer high-risk mothers to higher level care at all times. Associated community health workers are assigned approximately 1,200 households and oversee village health volunteers for that area. Every SDU sets its own fee schedule, but typically an antenatal visit costs around 25 taka (\$0.34), and deliveries cost 100–200 taka (\$1.35–\$2.70). Fees are subsidized according to clients' ability to pay.

SDU staff and village health volunteers hold regular health education sessions at the SDU and



*Ad-din/Jessore's paramedics offer antenatal consultations close to home.*

visit to homes with pregnant women or children under 5. Most women find out about SDU services through such household visits and awareness-raising sessions. Volunteers record data on community-level activities, maternal and child health service delivery, and basic health concerns (underweight

Each SDU is run by a community management committee, whose members are selected in accordance with government guidelines to represent a cross-section of the community, including women and the very poor. LAMB has invested heavily in building the capacity of these committees to manage SDU operations and ensure ownership. LAMB has developed for the committee members a management training package that covers a range of topics, including accounting, problem solving, and conflict resolution. LAMB's vision is for the management committees to gradually take full responsibility for the management and operations of the SDUs. The management committees meet monthly to review finances, including service revenues and community contributions, as well as to review key service delivery data and

**The LAMB and Ad-din/Jessore programs engage staff who live in the communities they serve and are available to provide round-the-clock services, including appropriate referrals. The dedication, shared vision, and commitment to quality among these staff drive the success of the programs.**

in surrounding villages. Each village health volunteer covers a catchment area of 200–300 households and is responsible for conducting a monthly

children, diarrhea, maternal deaths, etc.) in a pictorial record-keeping format designed for use by low-literacy or illiterate personnel.

health indicators. The meetings are also used to discuss and resolve any problems identified by the SDU staff or raised by members of the community.

In May 2011, all of the SDUs were able to pay the costs of support staff, and a few have taken on full responsibility for paying the salaries of the skilled birth attendants. Service delivery revenues currently cover anywhere from 31% to 67% of the operating costs of the SDUs, which

are frequently called upon to attend home deliveries, and they provide guidance over mobile telephones to TBAs, helping the TBAs recognize complications and refer women when indicated.

### *Sustainability and Ownership*

The operating costs of the satellite clinics are fully covered by the service revenues of Ad-din's Integrated Microcredit and Community Health

as for medicines, consumables, and the salaries for the paramedic, family health visitors, and rickshaw driver, are fully covered by patient fees (10%) and microcredit revenues (90%). This means that the satellite clinic services require no ongoing monetary support from Ad-din/Jessore.

LAMB is increasingly working alongside public-sector structures in the hope that women will have access to skilled birth attendance in every catchment area—whether at an SDU or another facility. LAMB strives for community ownership of the SDUs, as evidenced by its work to build the capacity of the management committees and its plan to gradually phase out support for SDU operating costs. LAMB provides support to most SDUs for the salaries of skilled birth attendants and community health workers. With donor support, LAMB also covers the costs of regular supervision and monitoring of service quality, staff training, and capacity building for the management

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also rely on donated funds from the communities to subsidize care for the poor. Some SDUs generate income by making clinic space available to rent for meetings or trainings.

program; these funds cover start-up costs and the rent of the branch offices where the paramedics are based. Monthly operating expenses, such

### **Similarities and Differences in Approach** *Services Offered*

LAMB's SDUs offer antenatal and postpartum care, as well as assisted normal vaginal deliveries and referrals. While Ad-din's satellite clinics do not provide delivery care, they make antenatal and postnatal services available in communities that lack access to other sources of care. The paramedics who provide these services actively promote skilled birth attendance and regularly refer women needing higher level care to Ad-din/Jessore or the closest appropriate facility. In addition, the paramedics



*SDU staff and community management committees work together to take management decisions.*



*Satellite clinics offer health education before individual consultations begin.*

committees. While most SDUs are not yet financially independent, LAMB has a clear plan for and commitment to transferring all responsibility to the clinic management communities once their capacity has been built and demonstrated.

### **Perceived Challenges**

Both Ad-din's satellite clinics and LAMB's SDUs provide essential maternal and child health services to women and communities that otherwise have little access to such care. In light of the needs in rural Bangladesh, however, both programs' staff noted that many areas remain underserved. Since clients typically walk to satellite clinics, each clinic affects an area in a small radius. Some patients have difficulty reaching an SDU, particularly multiparous women or those who must travel at night.

Both the satellite clinics and SDU programs rely on some volunteer staff (trained TBAs and village health volunteers), and ongoing motivation for unpaid staff can pose a challenge. To encourage trained TBAs to refer clients

when necessary, in 2009 Ad-din/Jessore began to pay a monetary incentive to TBAs who accompany women to the hospital for delivery. LAMB also pays a small amount to village health volunteers who accompany general patients and laboring women

to the SDUs; in addition, volunteers receive a small allowance for food and transportation when they attend monthly refresher trainings.

### **Keys to Success**

The two programs share several important practices:

- A robust management structure coordinates and supervises the quality of services.
- Regular refresher trainings bring staff together and facilitate ongoing learning and discussion.
- Coordination meetings with district-, upazila-, and union-level government authorities and active nongovernmental organizations ensure communication and complementarity.

### **Results**

The satellite clinic and SDU programs both strive to increase the availability of basic maternal and child health services, to save the lives of rural mothers and children. The SDUs are able to offer delivery services directly, while the satellite clinics refer

**No maternal deaths were recorded in 2009 or 2010 for SDU clients. Given the caseload and Bangladesh's national maternal mortality figures, five or more maternal deaths might have been expected over that time.**

complicated pregnancies and encourage others to deliver with a more skilled provider—that is, a trained TBA rather than an untrained TBA. Both programs demonstrate a distinctive emphasis on sustainability, depending on locally based staff to provide services. While it

is impossible to quantify LAMB's efforts to build the capacity of community management committees, for example, it is this emphasis on local engagement and ownership that have made possible the successes of both programs.

### Ad-din/Jessore Satellite Clinics

Satellite clinic staff believe that their program has increased births at facilities, antenatal care, postnatal care, and family planning coverage; Table 1 shows the overall increase in service provision from 2009 to 2010. The numbers of women making a first antenatal visit, a third antenatal visit, or a postnatal visit all rose sharply from 2009 to 2010, and the number of clients referred from the satellite clinics to Ad-din/Jessore nearly doubled.

It is important to note that population-based data on service coverage are not available, and such figures are notoriously laborious and challenging to collect. Ad-din/Jessore nevertheless receives positive anecdotal feedback indicating its impact. In the past, for example, family health visitors and paramedics commonly reported maternal and neonatal deaths during branch office meetings; such reports are increasingly rare.

The availability of trained TBAs and paramedics has provided better skilled options for home delivery and has increased the identification and referral of high-risk mothers. One paramedic reported referring 8–10 high-risk mothers and delivering 5–6 babies per month, compared with 1–2 deliveries per month two years ago, when she started the satellite clinic.

### LAMB Safe Delivery Units

Similarly, community members benefiting from the SDU program report

**Table 1. Services at Ad-din/Jessore Satellite Clinics**

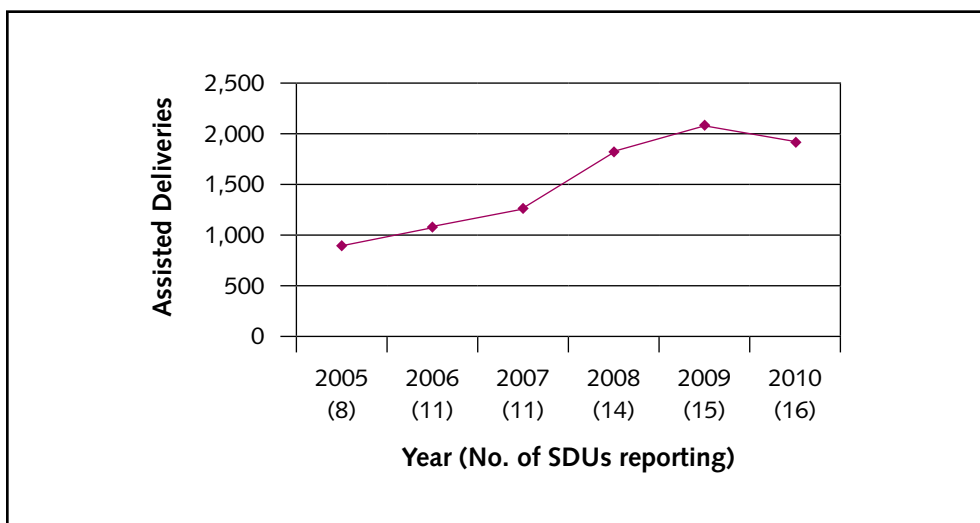
	2009	2010
No. of women making first antenatal visit	6,669	9,550
No. of women making third antenatal visit	3,241	6,914
No. of postnatal clients	2,332	3,758
No. of clients referred to Ad-din/Jessore from satellite clinics	1,048	1,804
No. of Ad-din/Jessore admissions among referred clients	608	766
Outcomes among those referred:		
No. of stillbirths	1	2
No. of maternal deaths	3	4
No. of home births attended by a paramedic or trained TBA*	4,312	4,338

\*Maternal and fetal outcomes are not available for those assisted by a paramedic or trained TBA.

an improved situation for mothers. Management committee members at one SDU noted that at one time, between 10 and 15 women in their union died each year as a result of pregnancy and childbirth, but in 2010 there was only one reported maternal death. Word has spread about SDU services; in 2010, 19% of clients came from outside a given SDU's catchment area.<sup>3</sup>

Unlike Ad-din/Jessore, LAMB has data on the skilled birth attendance its SDUs have made possible (Table 2). Roughly 165 women deliver at one of the 18 SDUs each month, for an annual total of 2,044 deliveries in 2009 and 1,977 deliveries in 2010 (Figure 1). Over time, LAMB has generally reported more deliveries with the inclusion of additional SDUs, but

**Figure 1. Deliveries at LAMB SDUs**



**Table 2. Services at LAMB Community SDUs**

	2009	2010
No. of mothers delivering at an SDU	2,044	1,977
Average no. of antenatal visits per mother	2.1	2.4
No. of antenatal visits	35,307	31,994
No. of antenatal clients referred	1,570 (4%)	1,680 (5%)
No. of postnatal visits	1,801	1,532
No. of clients referred when in labor*	541 (21%)	673 (26%)
Outcomes for deliveries at LAMB SDUs		
Perinatal mortality rate (deaths per 1,000 deliveries)	21.5/1,000	16.7/1,000
No. of maternal deaths	0	0
Referral outcomes for referred clients delivering at LAMB Hospital:		
No. of deliveries	270	300
Perinatal mortality rate	74/1,000	87/1,000
No. of maternal deaths	0	0

\*Outcome data are not available for referred women who delivered somewhere other than at LAMB Hospital. Clients are referred to the nearest, most accessible hospital. In addition to LAMB's distance from some SDUs, an additional possible disincentive is that it cannot accept government-issued vouchers for delivery services.

in 2010 the caseload declined despite the inclusion of one new SDU. This could be due to another organization's decision to provide workers with incentives to perform clean home deliveries. After meetings between community management committees, LAMB, and other organizations working in the catchment areas, the incentive scheme was revised to provide equal pay for clean home deliveries and referrals of patients experiencing complications.

In 2010, 5% of antenatal clients were referred as high-risk, while 26% of women in labor were referred. The identification of high-risk clients

and timely referral of obstetric complications mean that the remaining SDU caseload is appropriately low-risk. Maternal outcomes for SDU clients were excellent: No maternal deaths were recorded in 2009 or 2010 for SDU clients delivering at an SDU or at LAMB Hospital. Given the caseload and Bangladesh's national maternal mortality figures (Streatfield et al., 2011), one might have expected five or more maternal deaths in that time.

## Conclusions

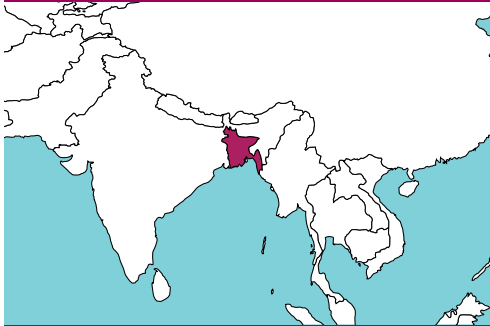
The Ad-din/Jessore satellite clinics and LAMB's SDUs offer rural women vital services close to home. Both programs

have facilitated increased access to antenatal care and skilled birth attendance in underserved communities and have strengthened referral linkages for women needing higher levels of maternity care. Both programs involve an extensive network of community-based staff making home visits, with links to vehicles that can facilitate transportation for the women who need it. The paramedics and branch office managers with Ad-din/Jessore and the community management committees affiliated with LAMB work to identify and overcome problems, such as the barriers individuals might face in accessing care.

The two models are unusual in their efforts to become independent of donor funding. Ad-din/Jessore's satellite clinics are so tightly linked with the microfinance program that the clinics require no financial support from the Ad-din Hospital. Increasingly, LAMB's SDUs are growing financially independent as well, through LAMB's fostering of community ownership and management. Nongovernmental organizations and public-private partnerships have run community-level maternal health services elsewhere in Bangladesh, but the programs developed by Ad-din/Jessore and LAMB are noteworthy for their efforts to ensure long-term sustainability and independence.

Bangladesh is making progress in reducing maternal mortality and morbidity, even as its proportion of home births remains high. Data are not available to explain the reasons behind this somewhat unique transformation, but referral mechanisms for obstetric complications and the availability of high-quality antenatal care may well play a part. The LAMB and Ad-din/

# BANGLADESH



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The People's Republic of Bangladesh is one of the most densely populated countries in the world, with more than 142 million people (BBS, 2011). Bangladesh's population growth has slowed in recent decades because of the availability and uptake of family planning services. Despite widespread poverty, the maternal mortality ratio in Bangladesh has dropped by 40% in the past 10 years, from 322 per 100,000 to 194 per 100,000 (Streatfield et al., 2011).

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Jessore programs engage staff who live in the communities they serve and are available to provide round-the-clock services, including appropriate referrals. The dedication, shared vision, and commitment to quality among these staff drive the success of the programs and ensure that women in the targeted rural areas have access to quality maternal health care.

### Notes

1. Trained TBAs need not have any educational qualifications before they participate in a six-month training at Ad-din/Jessore, in addition to receiving monthly full-day refresher trainings.
2. The skilled birth attendants at LAMB's SDUs have completed secondary school (A-level) and receive four months of basic clinical training, six months of community safe birth attendance training, and other shorter trainings, as needed.
3. This is partially attributable to the social practice of having expectant women return to their fathers' homes for delivery.

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### Acknowledgments

Carrie Ngongo wrote this technical brief in partnership with Ellen Brazier, Dr. Kazi Asadur Rahman, Dr. Farhana Shams Shumi, and the gracious staff of the LAMB Community Health and Development Program and Ad-din: Dr. Kris Prenger, Swapan Pahan, Atul Marandi, Mahatab Liton, Jagodish Chandra Roy, Isarab Hossain, and Dr. Md. Tariqul Islam, Dr. Salahuddin Khan, Dr. Md. Moshir Rahman, Dr. Shila Podder, Md. Mokter Hossain, Subashi Biswas, and Sahina Yesmin. We are grateful to the staff and clients affiliated with the Jhikorgacha and Chatiantola branch offices of Ad-din/Jessore and the Sanyasdanga and Tentulia SDUs of LAMB for sharing their perspectives. Thanks go to Dr. Abu Jamil Faisal and the entire EngenderHealth/Bangladesh office for their support. Pamela Harper, Evelyn Landry, and Celia Pett provided valuable input. This brief was edited by Michael Klitsch and typeset by Nicole Hirschman.

This publication was made possible by the generous support of the American people through the U.S. Agency for International Development (USAID), under the terms of the cooperative agreement GHS-A-00-07-00021-00. The information provided here does not necessarily represent the views or positions of USAID or the U.S. Government.

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