

In Bangladesh, the power of health in every mother's hand

APONJON



Photo by Aponjon

Aponjon (meaning “dear one(s)” in Bangla) aims to help to substantially reduce maternal and newborn deaths by improving health-seeking behaviors and preventive care among pregnant women, new mothers, and their families.

The Mobile Alliance Maternal Action (MAMA) program launched nationally in December 2012. A Bangladeshi social enterprise, Dnet, implements Aponjon in partnership with the Ministry of Health and Family Welfare (MOHFW) and with support from the US Agency for International Development.

Although under-five child mortality has decreased considerably in Bangladesh, neonatal mortality has decreased at a slower rate, with neonatal deaths a larger share of infant mortality. Greater progress was needed at that stage. Given that newborn survival and health are intrinsically linked with the health of women before conception, during pregnancy, and around the time of birth, and recognizing limitations in human resources for health, Aponjon developed as a mobile-based behavior change communication (BCC) program to increase health-seeking behavior at the household level and use of health facilities to prevent neonatal deaths.

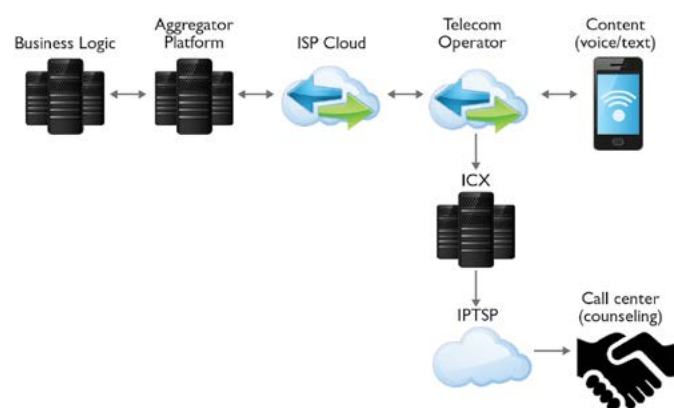
The service is designed for women between 6 and 42 weeks of pregnancy and mothers with a child under one year of age. It features critical health information and reminders based on gestational stage and age of baby in the form of text and voice messages. The messages also address “gatekeepers” such as the women’s partners, mothers, and mothers-in-law. In addition, Aponjon also launched a mobile application “Shogorbha” for pregnant women and redesigned its website as a host of web services.

About Aponjon

Globally, Aponjon is a unique mHealth initiative because it functions through all of the country’s telecom operators—six. About 81% of Aponjon users are from rural areas; 60% of women users have their own mobile phones. Technology stakeholders in the program include the telecom operators and value added services platform aggregator.

Aponjon has two major components: content (voice/text) and call center (counseling). The primary audience (expecting and new mothers) are delivered two messages, either by SMS or interactive voice response (IVR), a week while the secondary audience (partners, in-laws, parents, etc.) receive one, with each message costing about US.03 cents. The voice messages are a mix of direct messages and mini-skits messages, with local actors playing the roles of a doctor, pregnant woman, mother, and mother-in-law. Gatekeepers’ information reinforces messages provided to the mother and encourages family involvement in healthy decision-making around pregnancy, birth, and infant care.

Figure 1.
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All Aponjon content complies with the government's BCC guidelines. Content is identified, designed, and adapted based on ethnographic research; semi-structured content surveys; a review of national guidelines and international literature on maternal, newborn, and child health (MNCH); and an expert review by a panel of Bangladeshi physicians, researchers, and communications professionals. Followed by feedback from BabyCenter, the messages are approved by the Information, Education, and Communication (IEC) Committee of the MOHFW. The service is available in Bangla and two local dialects. Aponjon also offers a counseling line

to subscribers, serving as a direct channel to communicate with a doctor about health problems. Aponjon partners with the field forces of BRAC, Infolady (Dnet's program), MaMoni, Social Marketing Company, Smiling Sun, and several local nongovernmental organizations and agencies for customer acquisition. Customers can also register themselves, and provide information to ensure that the messages are in sync with the gestational stage or baby's age. Users are also able to select a preferred time of day for message delivery so that the message is received when it is most convenient.

Program Design Process

Dnet carried out extensive formative research from September 2011 through May 2012 before launching the service nationally. The research included 1,403 subscribers from five divisions, including 349 pregnant women (25%), 575 mothers of children under age one (41%), and 479 other household decision-makers (e.g. husbands, mothers-in-law) (34%). Areas of interest included: gender and mobile phone ownership; effective strategies for enrollment and promoting user awareness; acceptable cost models; user satisfaction of the content and tech platform; influence of content on MNCH-related health-seeking behaviors; and the involvement of family members in the service. Data collection included a pretest focus group, registration forms, deregistration data, payment status data, structured interviews, field observations, and phone surveys. The Johns Hopkins School of Public Health mHealth Initiative jointly produced a report with Dnet that examines and analyzes Dnet's formative research.

Aponjon conducts widespread bi-annual phone surveys. Apart from tracking health-seeking knowledge and practice indicators, the surveys query users if the service benefitted them and what could have been done better in terms of content and design of service delivery.

Aponjon received support from the Access to Information Program II (A2I-II) hosted by the Prime Minister's Office, which facilitated coordination among various government agencies for the program. Aponjon actively participates in the district health information system initiative of the Directorate General of Health Services-Management Information Services office and has already streamlined its system data landscape.

Another important public sector contribution comes from the Bangladesh Telecommunications Regulatory Commission (BTRC), which helped secure approvals for differential charging and approved the short code and Aponjon counseling line. Aponjon's partners in the private sector have also included Johnson & Johnson, Agora, Lal Teer, and Beximco which contributed through corporate social responsibility (CSR) funds and sponsorships and helped in brand propagation. Telecom operators also complied with the mode of differential charging and made it possible for Aponjon to reach people across the socioeconomic spectrum.

On the technical side, SSD-Tech provides the technical platform for service delivery with "MT charging," meaning clients are charged when messages are received. Synesis IT serves as the call center service provider that developed a customer relationship management system and a separate system for the counseling line.

Growth in Scale

After the national launch, Aponjon acquired 100,000 subscribers by July 2013. The subscriber base hit 750,000 in August 2014, 1 million in September 2014 and 1.5 million in December 2015. In addition to standard SMS and IVR, the service has made content available through a mobile application, "Shogorbha", for pregnant women. Aponjon aims to reach 2 million subscribers by September 2016 and launch newer products.

During its pilot phase, Aponjon served 1,403 subscribers in a few urban and rural areas across five divisions of Ban-

gladesh. A core research team had evaluated various aspects of the service before national roll-out. Community health workers from BRAC and USAID's MaMoni project assisted in enrolling most of the initial subscribers. Popular campaign strategies were executed in select urban locations and their contribution in the overall growth of subscription was reviewed. Using local leaders and spokespeople to increase awareness of Aponjon while also forging greater trust in the brand, building partnerships with more community-based organizations, including more detailed messages on nutrition, arranging for refresher trainings for call center agents

and initiating a ticketing system for better management of service issues by vendors are some major pilot phase outcomes that paved the way to a large-scale implementation.

Dnet uses innovative financing models, leveraging CSR funding at local and global levels, and providing the service for the poorest subscribers free of charge while charging the better-off users the full price. Dnet also uses advertising and sponsorship donations. Aponjon is financed primarily through support from development agencies (88%), namely USAID. The next largest portion of Aponjon's funding comes from local CSR (7%), followed by the Sponsor-a-Ma campaign (4%). Together, user fees and fees charged to com-

panies interested in using the messaging for advertising make up slightly less than 1% of Aponjon's funding.

Aponjon has faced some vital challenges in the process of scaling up its operations. Lack of funding for above-the-line campaigns crippled the program's ability to sustain its brand communication efforts. In spite of co-branding efforts with products of high rural market penetration, the program never overcame the need for launching above-the-line campaigns as the rate of self-registration was persistently low. Also, mostly due to the former, Aponjon had to heavily rely on customer acquisition led by community-based agencies that had to be paid more than some leading nongovernmental organizations.

Evaluation and Results

Aponjon conducts periodic surveys to understand the impact of the intervention and to gather feedback for further modification of the service. Annual sample surveys have been conducted since 2013 to understand how the service impacted users both in knowledge and practice, if at all. Reasons behind non-compliance with content instructions and the process of and barriers to behavioral changes are explored. Two sample surveys have been done so far, reaching 799 expecting and new mothers. These surveys revealed that about half (54%) of Aponjon users are first-time mothers, while 66% of them reported having been actively using some form of family planning. About 14% of users reported to have spaced previous births by at least 3 years. When users were asked about their level of satisfaction with Aponjon services, 91% indicated they were "satisfied" and 35% gave the services the highest possible rating.

Aponjon also conducted a content survey in 2013 to better understand user acceptability and comprehensibility of messages received. A total of 335 women and 88 gatekeepers were

interviewed. User feedback and preferences on message length, content type, message frequency, and usability were translated into actionable recommendations. Some of the major actions based on findings included the introduction of content in two major local dialects, incorporation of content specific to the rural version, and advanced messages on pregnancy care and home remedies.

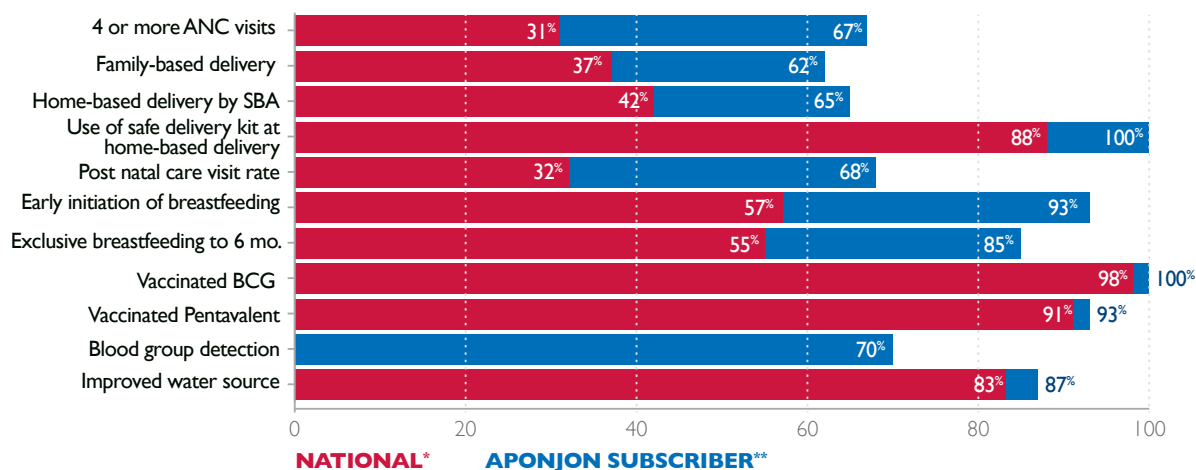
Aponjon performs regular bi-annual phone surveys to track the status of 11 health milestone indicators, including antenatal and postnatal care visits, exclusive breastfeeding, and BCG (TB) vaccination, and to gauge customer satisfaction and loyalty through net promoter scores. The outcomes of these health indicators are then compared to national level values (see Figure 2 below).

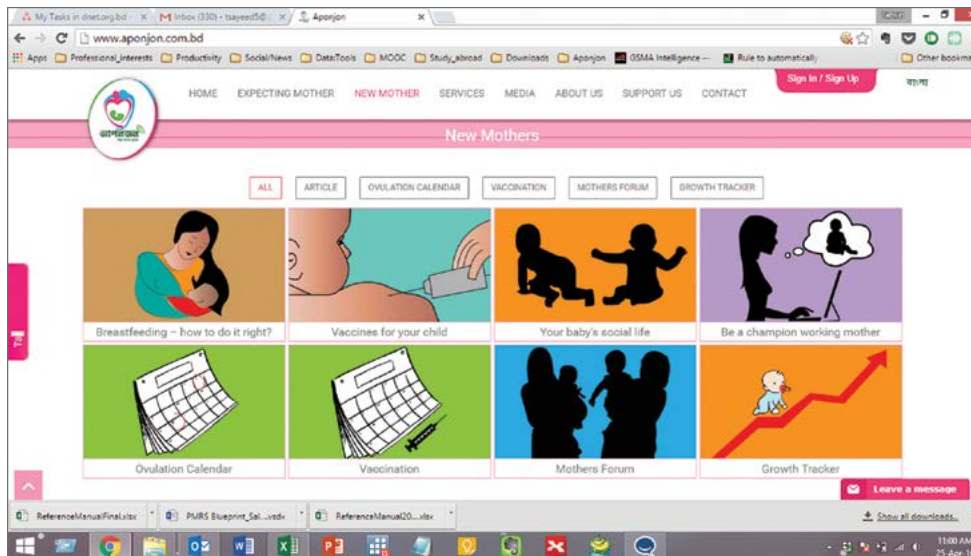
A third-party mixed methods evaluation of the program was conducted by the USAID-funded TRAction project. Results indicated that respondents who had used Aponjon for a

Figure 2.

Evaluation results for health-seeking behavioral indicators

(Sources: *National Data Source: BDHS 2014, WHO 2013, and Unicef 2012); **Aponjon subscriber phone survey VII, July 2015)





Images provided by Aponjon

minimum of six months, received at least three messages per month and carefully listened to most of the messages showed both increased knowledge and practice of maternal and newborn health care. Study recommendations included that the program should emphasize continued use of services for a longer duration, and to explore reasons for not receiv-

ing or carefully listening to all messages. (Chowdhury, 2015) Other findings indicated that some non-eligible clients were registered by agents, and also that users demanded another service on early childhood development. Based on this research, Aponjon formed an in-house quality control unit and content for early childhood development is being developed.

Lessons Learned in Program Implementation and Scaling

One of the main challenges Aponjon faced was to gather all mobile network operators under one umbrella. Given that Grameen Phone was the only operator during the pilot, areas such as Chittagong—which had low Grameen Phone coverage—had much fewer subscribers. After a lengthy process of negotiation and technological integration with each operator, four operators were added before the national launch.

Receiving the right and disaggregated service delivery metrics from the technology platform vendor SSD-Tech posed another challenge for the program. Aponjon needed to be able to track message acceptability by content area and monitor fluctuations of deregistration by exposure to content.

Over the last two years, revenue from local CSR funds has decreased alarmingly as local companies are increasingly channeling their CSR funds through in-house charity foundations. This tendency has limited the program's ability to extend the service to ultra-poor families for free.

Aponjon devised a workaround, where possible, to each of the abovementioned obstacles. Soon after the pilot, the team built on the partnership with the BTRC and brought all six of the country's telecom operators (including the state-owned Teletalk) aboard. Dnet redesigned service metrics and ensured routine tracking of service delivery based on disaggregated measures. Lastly, the decline in CSR funding from local companies has been tackled with increased sponsorship and fundraising efforts globally. Prior to its dissolution in

December 2015, MAMA helped Aponjon broker instrumental partnerships with international donors and corporations such as Johnson & Johnson. Johnson & Johnson offered sponsorships covering the entire service package for over 5,000 mothers in fiscal year 2015-16.

Although the initial program delivery commitment was for 500,000 expecting women and pregnant mothers, Aponjon went on to cater to over 1.6 million subscribers to date. This is not only due to support from USAID but also because of partnerships across the public and private sectors that Aponjon has forged over the years. Furthermore, some major outgrowths from the initial structure of project deliverables are as follows:

- Aponjon's official website has been redesigned with the introduction of a diverse host of web services, including articles on food and medicine in pregnancy to breastfeeding practices, a growth tracker, event calendar, estimated due date calculator, ovulation calendar, and a social timeline called Mothers' Forum.
- Aponjon launched the first mobile app in the Bangla language with a range of comprehensive information for expecting mothers. Features include week-by-week gestational information, an expected due date calculator, event calendar, nutrition routine, weight chart, and kick-tracker.
- The Aponjon counseling line features 16 doctors/general physicians who are available with first-line medical counseling for registered subscribers.

Future Plans

Aponjon, based on a tested sustainability model approved by USAID, will transform into a for-profit business called Lifechord. All organizational formalities and legal paperwork have been completed. Initial capital for Lifechord includes program income from non-USAID funds, CSR funds, and Dnet's own investment. Lifechord will be able to explore radical cost-cutting and income-generation options beginning with the launch of Dnet's own technology platform in March 2016. This marks an important transition in the program; running the service from its own technology platform means greater control over service delivery metrics, stronger negotiation with mobile network operators as a content provider, as well as opportunities for generating revenue from diverse service innovations. This systemic changeover will translate into efficiency gains, broader developmental leeway, and fewer challenges to exploring new market segments and replicating in different contexts.

However, as an initially donor-funded program, one major roadblock to working out the current transition and sustainability plans is the limited opportunity to attract angel and impact investors, as investments arising from such initiatives cannot be declared as assets for LifeChord going forward. Therefore, Aponjon has been busy crafting its service portfolio with new developments paving a way to diverse revenue-generating activities.

Activities recently launched or in development include:

- **Aponjon Shoishob:** Weekly mobile content in the form of IVR/SMS. It will target parents of children aged 1–5 years and address issues pertaining to early childhood development.
- **Aponjon Koishor App:** Mobile application targeting adolescents aged 10–19 years and their parents. Features a counseling line and live web chat. Launched April 7, 2016.
- **Aponjon New Mother App:** A mobile application which will target mothers of children aged under one year. ■

Snapshot: Aponjon

Geographic Coverage	Bangladesh
Implementation Dates	December 2012 to present
Implementation Partners	Dnet: a social enterprise that designs innovative products and service solutions for women, children, and youth in rural and urban settings to create social impact, and for institutions to enhance capacity and productivity. It runs Aponjon in partnership with USAID and the Government of Bangladesh.
Donor(s)	USAID
Contact Information	Tahsin Ifnoor Sayeed, M&E Specialist, Dnet, tahsin.ifnoor@dnet.org.bd

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