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# Aponjon Business Plan July 1, 2012–June 30, 2015

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# ACRONYMS

<b>A2I</b>	<b>Access to Information Initiative, Prime Minister Office</b>
<b>ATL</b>	<b>Above the line (mass media marketing channels)</b>
<b>BDT</b>	<b>Bangladeshi taka (\$1 ~ 81 BDT)</b>
<b>BTL</b>	<b>Below the line (community based marketing channels)</b>
<b>BTRC</b>	<b>Bangladesh Telecommunication Regulatory Commission</b>
<b>CSR</b>	<b>Corporate Social Responsibility</b>
<b>DGFP</b>	<b>Directorate General of Family Planning</b>
<b>DGHS</b>	<b>Directorate General of Health Services</b>
<b>DNET Bangladesh</b>	<b>Development &amp; Research Network, Secretariat MAMA</b>
<b>GOB</b>	<b>Government of Bangladesh</b>
<b>ICDDR,B Bangladesh</b>	<b>International Centre for Diarrhoeal Disease Research,</b>
<b>IVR</b>	<b>Interactive Voice Response</b>
<b>MAMA</b>	<b>Mobile Alliance for Maternal Action</b>
<b>MCC</b>	<b>Multimedia Content &amp; Communications</b>
<b>MCHIP</b>	<b>Maternal &amp; Child Integrated Health Program</b>
<b>mHealth</b>	<b>Health services and applications using mobile technology</b>
<b>MOH</b>	<b>Ministry of Health</b>
<b>MOU</b>	<b>Memorandum of Understanding</b>
<b>NGO</b>	<b>Non-government organization</b>
<b>RFP</b>	<b>Request for Proposal</b>
<b>SHOPS</b>	<b>Strengthening Health Outcomes through the Private Sector</b>
<b>SMC</b>	<b>Social Marketing Company</b>
<b>SMS</b>	<b>Short Message Service</b>
<b>SSD-Tech</b>	<b>Systems Solutions &amp; Development Technologies, Ltd.</b>
<b>UISC</b>	<b>Union Information &amp; Service Center</b>
<b>USAID</b>	<b>United States Agency for International Development</b>
<b>VAS</b>	<b>Mobile Value Added Service</b>
<b>VOIP</b>	<b>Voice over Internet Protocol</b>

# EXECUTIVE SUMMARY

Aponjon is a mobile information service for expecting and new mothers and their families launching at national scale in Bangladesh in July, 2012. Under the auspices of the Mobile Alliance for Maternal Action (MAMA), Aponjon is designed to be a self-sustaining enterprise without long-term donor funding. This business plan sets forth the assumptions, and projected costs and income, over the three-year period from July, 2012 through June 30, 2015, to reach that goal.

## BACKGROUND

As part of the new United States Global Health Initiative, the United States Agency for International Development (USAID) catalyzed formation of a public-private partnership in Bangladesh in late 2010 to support the implementation of a mobile information service. The purpose of the initiative was to explore opportunities to achieve sustained improvements in health knowledge, behaviors, and outcomes by leveraging the wide user base of mobile technology. With the launch of [MAMA](#) in May 2011, the Bangladesh initiative became MAMA Bangladesh and was incorporated into the MAMA umbrella of mobile-facilitated information services.

The service, branded as Aponjon, which means "dear one," provides messages to women, new mothers, and their families appropriate to stages based on due date or date of baby's birth. The messages address topics including antenatal and postnatal care, safe delivery, immunization, breastfeeding, family planning, and nutrition. Subscribers either self-enroll in the service or are enrolled by community agents (community health workers, InfoLadies, and other types of community-based workers) from partnering organizations who promote the service at the community level.

MAMA founding partners USAID and Johnson & Johnson provided start-up funds to cover costs of partnership development, content creation and validation, communications strategy, technology design and development, regulatory approvals, corporate resource mobilization, and business planning. MAMA Bangladesh is a country-owned, country-led initiative, with strong support of the Government of Bangladesh. A partnership of local implementing and resource partners are organized through the MAMA Bangladesh Secretariat, a local non-profit organization named Development & Research Network (D.Net), which manages and owns the service.

In a service pilot phase conducted between October 2011 and June 2012, messages were delivered to more than 2000 subscribers in 13 separate locations of the country. Extensive research conducted with pilot participants has informed the assumptions in this business plan.

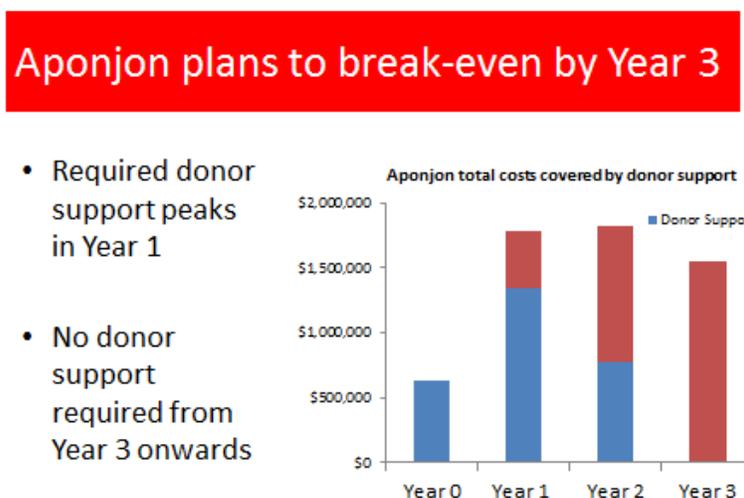
## APPROACH

Aponjon estimated its total costs to provide service and created revenue generation approaches and other financing to cover those costs. As a social enterprise with a "double bottom-line," the service seeks to be both commercially sustainable and to have

a measurable impact on health outcomes at national scale. A detailed set of financial estimates is attached in Annex A.

Aponjon is designed to be financially self-sustaining within three years, with declining donor support. Beginning in 2010, and continuing throughout the pilot phase and first year of service, start-up funds of more than \$1.8 million have been obligated to Aponjon from USAID. MAMA partner Johnson & Johnson also made a substantial contribution of \$230K to finance pre-launch activities. It is estimated that an additional \$800K in donor funds will be needed to achieve break even within the three-year target period.

Figure 1: Aponjon donor funding



## SUBSCRIBER

MAMA Bangladesh has set a target of 2.1 million cumulative subscribers over the course of the three-year period, to be achieved through a combination of marketing and outreach activities. An additional 1 million family members are also expected to subscribe to a companion “gatekeeper” service. The target enrollment figures are based upon a total addressable market for primary audience of 4.2 million women per year (total pregnant women and women with babies under 1 year, discounted by the number estimated to have mobile phone access (70 percent target audience)). Target addressable market of gatekeepers is estimated to be 2.9 million.

Table 1: Subscriber projection assumptions

<b>Subscriber growth assumptions</b>			
Percent of total addressable population enrolled	Primary Audience Pregnant/New Mothers	Gatekeepers (50% primary audience)	Total annual subscribers
<b>Year 1: 4%</b>	209,210	104,604	313,814
<b>Year 2: 14%</b>	688,778	344,390	1,033,168
<b>Year 3: 26%</b>	1,236,568	618,284	1,854,851
<b>Cumulative Totals</b>	2,134,556	1,067,278	3,201,833

Subscriber enrollment will be facilitated through use of community agents and other trusted intermediaries. Agreements have been established with six outreach partners—BRAC, Smiling Sun Franchise Program, Save the Children Mamoni project, D.Net InfoLadies, USICs (Union Information and Services Centers), and MOH frontline workers. These partnerships represent a field force of more than 5,000 agents, with potential for further expansion. Enrollment through community agents will be complemented by sales through stand-alone facilities, such as local shops, clinics, and other retail establishments. Consumers will also be encouraged to self-enroll through national mass media and community-based marketing events.

## REVENUES

In addition to ongoing but declining donor funding, there will be four sources of financial support.

**User fees:** Aponjon will charge subscribers a modest fee per message, with a portion (20 percent) in the lowest social-economic strata receiving free subsidized service. In addition to providing critical revenue to fund the service, user fees provide evidence of value to consumers. Aponjon sales will demonstrate that the service is meeting subscriber expectations and ensures responsiveness to consumer preferences and desired improvements. User charges are common among mobile value-added services, and provide incentives for mobile operator promotion. Based upon willingness-to-pay research conducted during pilot phase, initial charge will be established at 2 BDT (\$.02) per message for Year 1 and Year 2, reducing to 1 BDT per message from Year 3.

**Per message advertising:** Corporate sponsors may purchase message tags such as “For washing your hands use Lifebouy.” Message-linked advertising provides a targeted, easy-to-measure channel to build brand visibility for companies. Message inventory may be sold by season, by content area, or other categories to serve corporate brand strategies. Partnerships with financial services, agriculture, and other sectors will provide opportunities to bundle information and applications to provide additional Aponjon subsidies.

**Corporate Social Responsibility (CSR):** In addition to per message ads, Aponjon will rely on private sponsors to underwrite service costs with grants, in-kind contributions, and other support. In 2011, Beximo committed more than \$90K as Aponjon’s first commercial sponsor. Aponjon sponsorship offers local companies major media exposure, visibility with international partners, and identification with a ground-breaking enterprise.

**Philanthropic Gift for Mothers:** Aponjon will be marketed to community service groups, faith-based organizations, corporate houses, and individuals to solicit purchase of full cycle of Aponjon for poor mothers under caption of “Buy a Mother a Service.” Membership organizations such as the Rotary Club have expressed commitment to supporting the gift service through their membership base of more than 100,000. This marketing approach is designed to tap the generosity and compassion of wealthier Bangladeshi and diaspora.

**New services:** Aponjon will leverage its subscriber base and market intelligence to develop additional services with new revenue prospects. Examples of services in early stages of development are linkages to medical hotlines, location-based referrals for nearby services, mobile apps for smart phones or embedded SIM-card services, and premium customized content such as service in local dialects. Investment of \$200K to fund research in promising new service applications has been included in the business plan, but target revenues have not yet been estimated.

Figure 2: Aponjon revenue sources



**COSTS**

Total projected costs to operate and grow Aponjon service on an annual basis were allocated to either fixed or variable categories. Fixed costs represent the vast bulk of Aponjon expenses, including personnel, rent, marketing, software platform, and content. Variable costs include those that will depend upon the volume of message units sold,

including mobile operator payments, outreach partner incentives, and customer service costs. It is estimated that the variable cost per unit is .91 taka (approximately \$.005). Based on projected subscriber growth, per-unit profits will help defray the fixed costs of providing Aponjon service but must be supplemented with corporate sponsorships and other revenues detailed above to achieve break-even in three years.

Key cost centers and assumptions include the following:

**Program management:** Staffing to support national service requires extensive human resources with skills in planning, program administration, media and marketing, finance, legal, monitoring and evaluation, research, information technology, product design, partner outreach and negotiation, knowledge sharing, and customer service. With the introduction of new services, personnel and other direct Aponjon costs are expected to decrease over time as a percent of total as overhead will be distributed across a wider range of services.

**Technology platform:** One of the largest Aponjon cost centers is for the software platform needed to host and deliver the recorded voice messages to subscribers through their mobile networks. Currently, the only option for integrated voice response (IVR) systems capable of handling high volume of calls for national scale voice service are proprietary “commercial grade” systems. Under the contract negotiated by D.Net, Aponjon will rent an existing high-capacity platform (includes both SMS and recorded voice) for monthly charges that include design changes, real-time reporting features, and a per-minute charge to cover hardware and license fees. By the end of Year 2, technology costs will constitute nearly 30 percent total cost of service.

**Mobile operator charges:** Aponjon will be available through all six licensed mobile network operators. Aponjon has negotiated revenue sharing contracts, better than standard industry practice for mobile VAS, with terms starting at 45 percent operator/55 percent Aponjon revenue split. With support of Government of Bangladesh MOH and BTRC, MAMA Bangladesh is pursuing more generous terms for revenue sharing terms (60 percent for Aponjon). These more favorable assumptions have been incorporated into this business plan.

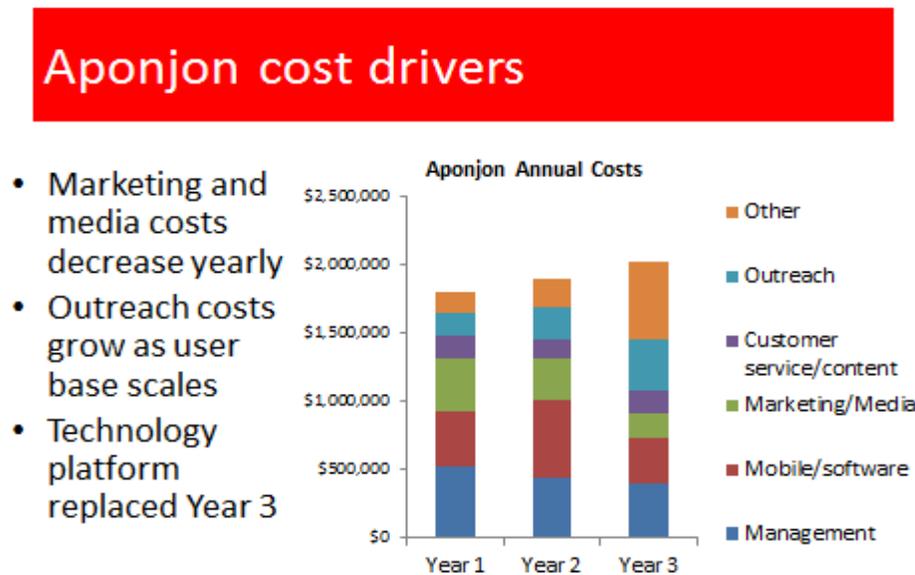
**Marketing and mass media:** Aponjon will generate demand through national awareness campaigns based upon a communications and branding strategy developed by a major advertising agency. These campaigns will utilize both below-the-line (BTL) community-based activities and above-the-line (ATL) mass media channels to deliver on the marketing objectives. Television airtime constitutes a large portion of Aponjon’s budget, with year-round campaigns planned. An episode TV drama is planned for Year 1 that will feature the stages of pregnancy and newborn care with an emphasis on the importance of timely information.

**Outreach:** Formative research confirmed that the Aponjon target audience would require trusted intermediaries to vouch for the service to promote enrollment.

MOUs are currently in place with five organizations who have committed active role for more than 5,000 field agents (primarily community health workers) with existing relationships with Aponjon target audience. Costs to support outreach include managing partnerships, convening orientation sessions, conducting training and covering travel costs to attend, producing marketing materials and registration log books, and reimbursing community agents for the mobile phone charges incurred. To compensate community agents for their time and effort and provide incentives for demand creation activities, D.Net introduced an incentive of 10 taka per enrolled Aponjon subscriber.

**Other:** Additional costs to provide service will include customer service center (utilizing established call center facilities), content updating and maintenance (such as production in local dialects), program monitoring and surveys (through research contracts), and knowledge dissemination activities (including international travel).

Figure 3: Aponjon cost drivers



## RISKS AND UNCERTAINTIES

Many uncertainties underpin these aggressive goals and assumptions. As a new kind of service, there is no market data from which to draw upon in setting subscriber targets and prices. Aponjon has the potential to both shape a new service category and be shaped by evolving consumer tastes for phone based services.

Through rapid iteration and flexible responses to the market, MAMA Bangladesh will continually test premises, learn by trial and error, and develop contingency plans. The journey to financial profitability will not be linear. This business plan will be revised every

six months to reflect progress toward targets against plan and basis for revisions adopted.

Two key risks are highlighted, with strategies for offsetting increased costs or decreased income outlined in this business plan. These risks are:

- Lack of an operational alternative IVR system to replace high-cost proprietary platform
- Failure to attract sufficient corporate investment at target levels

To address potential funding shortfalls, Aponjon will reduce planned TV airtime expenditures and replace with lower cost BTL activities, seek more favorable revenue sharing terms with mobile operators, and extend donor timeline and levels of support to reach sustainability goal. Aponjon will also address potential cost pressures with investment in premium services designed to leverage the core Aponjon service platform. These investments may include new partnerships, and/or new research and development with potential for additional revenues yet to be estimated.

## **CONCLUSION**

MAMA Bangladesh is a pioneering venture, the first national-scale audio health information service targeting maternal child health in a developing country. Through MAMA's vision and start-up funds, Aponjon was designed by local institutions with deep knowledge about the values and culture, technology use, and barriers to better health for women in Bangladesh. Under active government stewardship, a diverse set of partners who perceive the potential benefits of Aponjon have joined together and will share its costs. Through the commitment, creativity, and flexibility of these implementing partners, Aponjon will address the varied risks and barriers to financial stability noted in this business plan. By carefully documenting the assumptions and changes along the way, the intent is to provide greatly needed evidence about mhealth business models and offer lessons learned for future program developers.

# BACKGROUND

As part of the new United States Global Health Initiative, USAID catalyzed the formation of a public-private partnership in Bangladesh in late 2010 to support the implementation of a mobile information service to achieve sustained improvements in maternal child health knowledge, behaviors, and outcomes. With the launch of the Mobile Alliance for Maternal Action ([MAMA](#)) initiative in May 2011, the Bangladesh coalition became MAMA Bangladesh, and along with programs in South Africa and India, was incorporated into the MAMA umbrella of mobile-facilitated information services. Bangladesh was identified as an initial launch country due to its high mobile phone penetration, active mhealth environment, and Government of Bangladesh commitment to increase access to information for all populations through its Digital Bangladesh strategy.

MAMA Bangladesh is a country-owned, country-led initiative under leadership of the Ministry of Health (MOH). Through a coalition of local implementing and resource partners representing civil society, corporate sector and government agencies, MAMA Bangladesh designed and tested a platform to deliver health messages to pregnant women and new mothers branded Aponjon or “dear one.” In a service pilot phase that took place between October 2011 and July 7, 2012, messages were delivered to more than 2000 women and their families in thirteen locations of the country. Extensive research conducted with pilot participants has informed all business plan assumptions.

Beginning in 2010, start-up funds of \$1.5 million were provided by USAID through two separate funding mechanisms, the Strengthening Health Outcomes through the Private Sector (SHOPS) project) and the Maternal & Child Health Integration Program (MCHIP) project. An additional \$230K in grants was provided by MAMA co-founding partner Johnson & Johnson for the pilot phase.

## Service Overview

The Aponjon service provides stage-based messages to women, new mothers, and their families tied to the due date or date of baby’s birth. The messages address topics including antenatal and postnatal care, safe delivery, immunization, breastfeeding, family planning, and nutrition. Subscribers either self-enroll in the service, or are enrolled by community agents (community health workers, InfoLadies and other type of community-based workers) from partnering organizations who promote the service at the community level.

Subscribers receive two health messages per week with information relevant to their week of pregnancy or newborn care. The messages are in “push” format, sent automatically to subscribers’ phones, and require no subscriber initiative after the registration step. When enrolling, subscribers can choose either text message (Bangla or English) or recorded audio format (Bangla language) for the service. Subscribers are instructed how to cancel service at any time.

The primary target audience for Aponjon is pregnant women and new mothers, particularly low-income women with limited access to health information, who have access to a mobile phone. For every woman in the primary audience, the service also targets a “gatekeeper” or an influential person from the family such as a husband or mother-in-law.

## **Partnership Structure**

**Coordination and management:** MAMA Bangladesh is managed by D.Net, which serves as the Secretariat of MAMA Bangladesh and is owner of the Aponjon service. D.Net is a Bangladeshi social enterprise whose mission is to promote access to information and knowledge using various information and communications technologies (ICTs). D.Net oversees design, development, and financing of Aponjon and is responsible for resource mobilization, partner negotiations, formative research, strategy, operations, and regulatory approvals.

**Government leadership:** Through an advisory board chaired by the senior secretary of health, the Government of Bangladesh plays a vital stewardship role in the enterprise. The Aponjon Advisory Board consists of members from leading public health institutions, donor agencies, and research organizations. It provides strategic guidance and ensures critical policy support for the initiative. The prime minister’s office’s Access to Information (A2I) Program actively supports and advises the initiative and has facilitated engagement with the Bangladesh Telecommunications Regulatory Commission and other agencies.

**Outreach and distribution:** Formative research with target users in Bangladesh highlights the importance of using trusted intermediaries to promote Aponjon and enroll subscribers. Bangladesh has long had a tradition of providing health services and education through community based workers. Memoranda of Understanding (MOUs) are in place with BRAC, Smiling Sun Franchise Program, Save the Children Mamoni Project, Social Marketing Company (SMC), Union Information and Service Centers (UISC), Directorate General of Health Services (DGHS), and Directorate General of Family Planning (DGFP) to support enrollment of subscribers through their community agents.

**Implementing organizations:** D.Net has established separate contractual relationships with companies with the necessary expertise to deploy and support Aponjon.

**Software platform:** Through a Request for Proposals (RFP) process, Bangladesh Software Company System Solutions and Design Technologies Inc. (SSD-Tech) was selected to design and develop Aponjon software architecture including both IVR and SMS services. SSD-Tech hosts and maintains the software platform. SSD-Tech is a leading mobile aggregator and mobile VAS provider with existing platform connections to each of the six licensed mobile operators in Bangladesh. Contract terms provide for SSD-Tech to be reimbursed on a per-minute charge for use of its platform.

**Mobile operator connectivity:** Aponjon will be available through all six mobile operators. Initial contract terms were established during the pilot phase with the three largest operators—Grameenphone, Banglalink, and Robi. As a Design/Test Partner, Grameenphone waived payment for all IVR and SMS charges incurred on its network during pilot period. New terms are being negotiated with all operators for national launch, discussed below.

**Media and marketing:** Branding and media strategy for Aponjon was developed by Unitrend Ltd, a Bangladesh affiliate of McCann Erickson. Unitrend conducted qualitative research to formulate the Aponjon brand and developed a detailed communications strategy for various target segments.

## Impact Evaluation

One of the important objectives of MAMA Bangladesh is to generate evidence on the impact of mobile information services on health knowledge, attitudes and behaviors. A rigorous independent evaluation of the impact of Aponjon service will be conducted by ICDDR,B. This research will be funded through a separate USAID mechanism, and is not addressed in this business plan. D.Net will cooperate with the independent evaluation team to ensure coordination and access to subscribers for baseline and endline data collection

## APPROACH

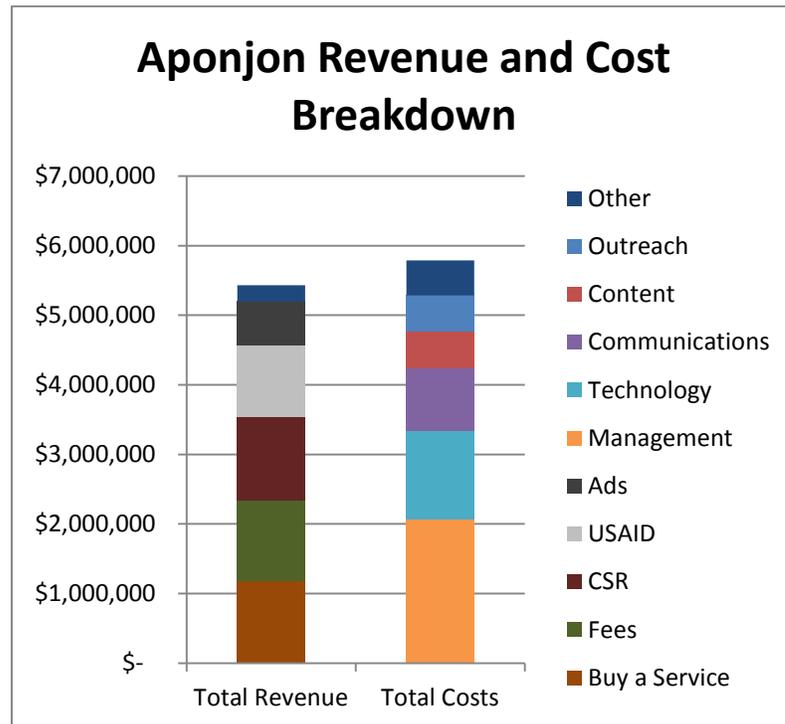
Aponjon was conceived as an innovative model for improving health outcomes through a commercially viable mobile phone information service. By leveraging existing mobile phone infrastructure, Aponjon seeks to substantively contribute to a reduction in maternal and neonatal mortality by improving health-seeking and preventative behaviors of pregnant women, new mothers and their families.

Aponjon estimated its total costs to provide service and created revenue generation approaches and other financing to cover those costs. As a social enterprise with a “double bottom-line,” the service seeks to be both commercially sustainable and to have a measurable impact on health outcomes at national scale. Aponjon is designed to be self-sustaining within three years of launch. This business plan sets forth what it is needed to reach that goal.

Beginning in 2010, and continuing throughout the pilot phase and first year of service, start-up funds of more than \$1.8 million have been obligated for Aponjon service from USAID. MAMA partner Johnson & Johnson also made a substantial contribution of \$230K to finance pre-launch activities. This financial base is intended to catalyze inputs from local partners and generate additional revenue streams. It is estimated that an additional \$800K in donor funds will be needed to achieve break even within the three-year target period.

A detailed set of financial calculations is attached in Annex A. These projections set forth best estimates of costs and revenues, projected over a three year period from July 1, 2012 through June 30, 2015. Costs are also provided for the pre-launch and pilot period from July 1, 2011–June 30, 2012.

Figure 4: Aponjon revenue and cost comparison



## SUBSCRIBER PROJECTIONS

Aponjon’s financial health depends upon its ability to attract, enroll, and retain subscribers. Subscriptions will generate revenues through user fees and per message advertising inventory. A large subscriber base also provides incentives for companies, government agencies, and other resource partners to provide ongoing financial support.

The total number of Aponjon primary audience in Bangladesh is estimated to be 3.3 million pregnant women plus 3.3 million mothers with babies under 1 year. This total market of 6.6 million women per year is discounted by 30 percent to reflect the total addressable market, or those with mobile phone access. Access is defined as personal phone ownership, shared family phones and/or access to neighbor phones. The 70 percent phone ownership figure is based upon a research study on mobile phone access and use conducted by Panos London in 2010 with urban and rural Bangladesh women of reproductive age.

Of the total addressable market for primary audience of 4.2 million women per year, MAMA Bangladesh has set a cumulative target of 2.1 million pregnant women and new mothers over the course of the three-year period. An additional cumulative total of 1 million family members are also expected to subscribe to a companion “gatekeeper” service of an estimated total addressable market of 2.9 million gatekeepers per year.

**Table 2: Subscriber projections assumptions**

<b>Subscriber growth assumptions</b>			
Percent of total addressable population enrolled	Primary Audience Pregnant/New Mothers	Gatekeepers (50% primary audience)	Total annual subscribers
<b>Year 1: 5%</b>	209,210	104,604	313,814
<b>Year 2: 13%</b>	688,778	344,390	1,033,168
<b>Year 3: 23%</b>	1,236,568	618,284	1,854,851
<b>Total</b>	2,134,556	1,067,278	3,201,833

**Figure 5: Aponjon cumulative subscribers**



These projections were informed by a number of considerations. Formative research conducted by Panos London documented the high demand for Aponjon content among the target population. User feedback during Aponjon pilot phase has reinforced high user interest in and acceptability of Aponjon. Rapid uptake of other mobile services in Bangladesh such as BBC Janala’s English language service demonstrates potential for high subscriber enrollment in subscription based IVR services.

Most significantly, Aponjon’s community outreach partners will provide direct and personal access to the target audience, generating awareness of and demand for the service. The value of accessing Aponjon messages will also be communicated to

religious leaders, and other influencers of health behaviors. Once Aponjon subscribers enjoy the benefits of the service, it is anticipated that they will also become drivers of further adoption within their communities.

### Three-Pronged Approach to Customer Acquisition

- Community agents:** Aponjon will leverage community health agents and other trusted intermediaries to promote and facilitate service registration. Intermediaries are needed especially for rural clients, women with low technology literacy and limited education. Aponjon outreach partners BRAC, Smiling Sun, Mamoni Project, D.Net InfoLadies, UISC, DGHS and DGFP of MOHFW have agreed to expand training and support for Aponjon to reach the target enrollment, with an estimate of as many as 20 new subscribers per month per community agent.
- Stand-alone facilities:** Community agent enrollment will be complemented by sales through stand-alone facilities, such as Social Marketing Company (SMC) Blue Star providers in pharmacy shops, clinics of corporate partners such as Beximco Pharmaceuticals and other retail establishments. Aponjon will provide orientation, enrollment materials and incentives to support retail promotion and registration.
- Self-enrollment:** Consumers will also be encouraged to self-enroll through promotional information in national mass media and community-based marketing events. Self-enrollment is the most cost-effective option for acquiring subscribers. Self-enrollment is a good option for portion of target audience who are more educated, younger, urban and likely users of SMS.

Table 3: Assumptions customer acquisition by source

Assumptions on customer acquisition by source
30% self-enroll
15% retail outlets
55% community health workers

### Subscription Duration

Subscriber calculations included the following assumptions. Based upon pilot enrollment, it is anticipated that 50 percent of subscribers will enroll as pregnant women and 50 percent of subscribers will enroll as new mothers, after birth of a child. The business plan assumes average service duration of 60 percent of the entire service period—to reflect women enrolling at different during pregnancy or care of infant under 1 year. A 10 percent attrition rate is assumed to capture both women who cancel and those who fail to pick up a series of messages.

## **Role of Gatekeepers**

Formative research and pilot results have confirmed the critical role of family members, especially spouses, mothers and mothers-in-law, as key influencers of women's health seeking behaviors, access of health services and access to phones. To insure engagement of this critical audience, a separate message service was developed for gatekeepers, with separate registration process and separate once per week message content.

Aponjon will target key family members including spouses, mothers and mother-in-law to garner holistic family level support. By enrolling key family members and other influencers, Aponjon intends to create an enabling environment to improve likelihood of mothers and expectant mothers to access health information and to improved health-seeking care. Based upon pilot data, an additional 1.07m gatekeepers (estimate one per family for 50 percent primary subscribers) are expected to enroll in the service, resulting in a total subscriber base of 3.2m.

## **Challenges to Subscriber Growth and Retention**

MAMA Bangladesh is confident that it can reach the subscriber targets established based on its planned training-of-trainers, support activities and other outreach investments over the plan period, but this will depend upon sustained outreach partner commitment and cooperation. The projections assume steady growth in the number of community outreach partner members engaged and steady motivation on the part of those community health workers and retail outlets to increase Aponjon sales. If sales per outreach partner decline, additional team-building, support and incentives will be introduced.

A second uncertainty is the pace of self-enrollment in the service promoted through national mass media campaign. The target audience may need a longer exposure period to the campaign before the Aponjon brand inspires enrollment decision, or more endorsement activities by local leaders to engender trust in the brand. A competitive service could be introduced via mobile web or other channels that may cut Aponjon market share. Through rigorous monitoring of Aponjon marketing efforts, MAMA Bangladesh will refine and adjust its marketing campaigns to meet subscription goals.

Duration of service enrollment is also subject to many variables. The average expected enrollment period of 60 percent of complete service period could be reduced if more women enroll later in pregnancy or newborn care period. Assumed attrition of 10 percent could increase if unexpected technical problems occur for user base, or assumptions about family phone access are overstated. Enrollment periods will be closely analyzed to identify cancellation decisions, and to respond with needed improvements in service design or delivery assumptions.

# REVENUES

## User Fees

Mobile subscribers pay commercial rates for phones, airtime, and a broad range of services from ring tones to news headlines. Consistent with this mobile tradition, Aponjon is charging subscribers a small fee to receive the weekly messages, providing a critical revenue stream for sustainability. Aponjon has invested in quality drama-format recordings, using music, sound effects and professional actors to ensure high levels of engagement. Consumer price helps to establish the value to buyers of that content. One premise behind user fees is that women may put a higher value on information for which they are paying, and give the message content more weight.

Detailed willingness-to-pay research is being conducted to set optimum prices for the service. Based on existing mobile VAS and early pilot feedback, an initial charge of 2 BDT (under \$.02) per minute has been set (messages are one minute in length). This charge is 2.5 times lower than prices for existing VAS in Bangladesh. It is expected that Aponjon price will be lowered to 1 BDT per minute in Year 3, to increase sales volume and reach more price sensitive customers.

To address equity concerns, and ensure that the poorest and most vulnerable have access to Aponjon, 20 percent of all subscription will be free to the end user. Aponjon will subsidize these customers with revenues from other sources. Eligibility for free service will be based upon a number of set criteria, including whether the primary subscribers is head of household, whether her husband is a day laborer or if annual family income is below \$50.

## Message Advertising

Similar to other forms of media, mobile messages can be financed through commercial advertising. Aponjon is providing companies with the ability to insert advertising messages at one end of a recorded health message, such as “save money with X Bank in preparation for your delivery.” Mobile channels have advantages to message sponsors over print, broadcast and internet channels because advertisers have the ability to identify and track who, when, where and how often messages are reaching target users. Mobile advertising can also be targeted for specific subgroups of messages, such as all messages related to hand-washing, or all messages delivered during Eid. Like user fees, advertising messages are a promising but untested source of financing for Aponjon.

Careful consideration has been given to the risks of message advertisements, including the potential of consumer confusion about the source of the health message content, and the potential for undermining the message credibility. Additional formative research is being conducted to explore the potential impact on trust in the service content, and how to best delineate the advertising portion from the primary message. Aponjon criteria will ensure that advertising from promoting harmful products such as tobacco are prohibited.

Based upon discussions with mobile VAS providers, MAMA Bangladesh plans to establish initial advertising rates at BDT 3 per message, dropping to 2 BDT in Year 3. Exploratory discussions with potential advertisers confirm their interest in marketing through Aponjon at this rate range. The business plan assumes that 25 percent of total message inventory will be sold annually throughout the three-year period. This is a relatively conservative sales estimate to reflect the untested advertiser interest in this channel.

## **Corporate Social Responsibility and Sponsorships**

MAMA's vision is to engage the commercial sector as core resource partners, including underwriting funding gaps between earned income and expenses. Corporate support is being solicited through both CSR as well as co-branding opportunities. Aponjon is actively recruiting corporate partners to join the coalition and invest both cash and in-kind contributions aligned with their business interests. A kick-off event was hosted by the U.S. ambassador in late 2010 to introduce the service to a dozen top local companies and outline the critical role of the corporate sector in Aponjon's success.

Currently one MOU has been signed with Beximco Pharmaceuticals Limited (for a total contribution of \$100,000) and several additional companies are actively negotiating. Examples of in-kind contributions being sought from corporate sponsors are access to discounted media channels, point-of-sale promotions, and promotion through employee networks.

Among the reasons companies provide for considering sponsorship opportunities are (1) alignment between their corporate values and Aponjon messages of individual empowerment and choice, (2) the credibility of the initiative for a sustained CSR investment, and (3) the novelty of the initiative which is consistent with the desire to be identified with cutting-edge services.

As stated by one company executive, "our CSR investments must give something back to our brand, and we evaluate opportunities based on the expected gain to society as well as the value to our brand equity." Solicitation proposals have been developed offering specific visibility opportunities, including sponsor logos on national Aponjon media.

MAMA Bangladesh invested significantly in creating the independent Aponjon brand with the idea of providing opportunities for corporations and other institutions to co-brand and cross-promote the Aponjon platform to achieve their business objectives. Organizations and corporations will be offered opportunities to license the Aponjon brand and integrate into their products and services to build appropriate affiliations. This provides another channel for CSR expenditures that directly leverages Aponjon. As one example of this approach, MAMA Bangladesh is in negotiations with Multimode to incorporate the Aponjon logo onto its seed packets distributed annually to more than 50,000 rural farmers. Similar co-branding innovations and opportunities are being explored with mobile re-charge cards and other consumer goods.

With these considerations in mind, MAMA Bangladesh projects raising an additional \$1.2 million in CSR support over the three year target period.

**Table 4: Corporate sponsorship overview**

CSR Approach		
The Ask	Benefits	Barriers
<ul style="list-style-type: none"> <li>• Founding partners provide significant grants to sponsor Aponjon</li> </ul>	<ul style="list-style-type: none"> <li>• Visibility in national media</li> <li>• Recognition by international partners</li> <li>• Learn value of new channel to potential customers</li> <li>• Credibility through alignment with social enterprise</li> <li>• Increase knowledge about market segments through customer data</li> </ul>	<ul style="list-style-type: none"> <li>• Aponjon demand and value not yet demonstrated, fear of backing a weak service</li> <li>• Limited culture of large scale CSR</li> <li>• Weak economic climate</li> </ul>

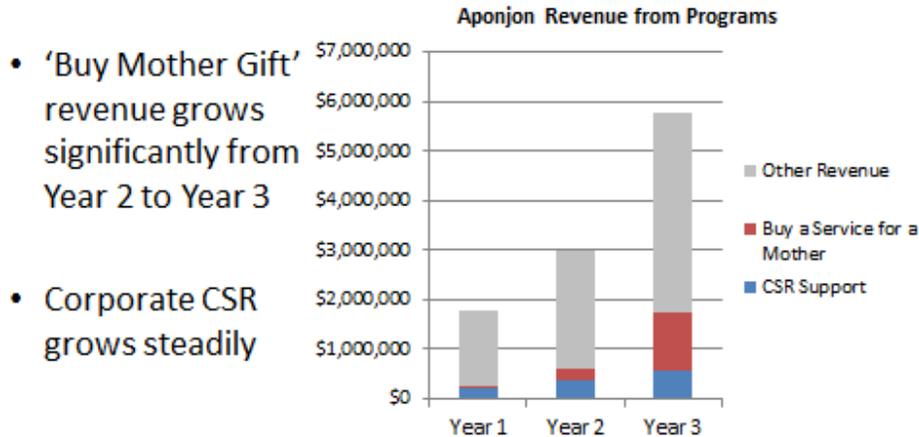
## Personal Philanthropy

The mission of Aponjon is one with broad appeal, to provide timely relevant information to reduce health risks to mothers and their babies. That mission taps a universal drive to protect loved ones—mothers, sisters, nieces, daughters—and offers a low cost, novel, tangible solution to promote well-being and improved health. To reflect these attributes, Aponjon will be marketed as a Gift for Mothers, inviting those with economic means to help fund the service for the most vulnerable.

Membership organizations such as the Rotary Club have expressed commitment to supporting the Gift for Mothers service, through their membership base of more than 100,000. The Rotary Club will encourage its members to fulfill their service to others through a modest purchase of 1000 BDT (\$12.50) per Gift for Mothers. Similar solicitations will be made to other community service groups, faith-based organizations, large employers and Bangladeshi diaspora abroad. These partner promotions will complement retail sales of Gift for Mothers wherever Aponjon is sold. MAMA Bangladesh has projected a steady growth in the revenues to be generated by Gift for Mothers, increasing at a rate of 15 percent sales per month.

Figure 6: CSR and philanthropy revenues

## CSR and Philanthropy Revenue



## New Services

Aponjon's stage-based health content for mothers and their families is an anchor service upon which other mobile applications can be built, linked, promoted, and bundled. Direct-to-consumer health communications is one element of a much larger mhealth ecosystem in which social services are delivered and supported. The long-term vision for Aponjon includes future integration with direct access to health care providers and facilities, linkages to electronic medical record systems, and connections to other social services such as financial, education or employment-related applications. By building upon Aponjon's existing partnership, platform, and brand, a new generation of applications can be launched with potential to sustain the core service.

Potential revenue from these new services have not been incorporated into this Aponjon business plan, as they are still in early concept stages and have not been fully designed or priced. Nonetheless, the illustrative services described below provide important contingency plans to offset some of the key risks identified in this business plan. A new service investment of \$200K is included under costs to fund new service research and development.

Early pilot data has confirmed an extensive diversity of needs and service requests from Aponjon subscribers, underscoring the limits of a single service "one size fits all" approach. During Year 1, as Aponjon closely monitors and fine-tunes the core service, MAMA Bangladesh will also actively explore the following new service options.

- **Links to clinical services:** Low health service utilization during pregnancy and childbirth is one of the key indicators that Aponjon is designed to address. Aponjon messages help women recognize health danger signs and encourage them to seek care. Using location technologies such as Geographic Information Systems, a directory system will be developed to help women identify and contact nearby clinical facilities. Cost-sharing options with public and private clinics will be explored to fund additional mobile phone services including urgent consultations, appointment reminders through integration with electronic medical records, and transport services.
- **Premium services:** Currently Aponjon offers two services (one SMS and one IVR) for expecting and new mothers, and two services for gatekeepers (one SMS and one IVR). Many variations on these services can be developed with premium charges attached. Initial plans are to develop Aponjon messages in local dialects for a proposed extra charge to be determined during formative research. Other variations requested during the pilot phase include longer version messages, new content areas, and options to link to live doctors for questions.
- **Mobile apps:** Smart phones are rapidly increasing in Bangladesh, now serving 10 percent of the mobile phone market and growing at 15 percent per year. Aponjon will take advantage of the advanced features of smart phones to create an Aponjon application that can be downloaded for a fee onto phones, possibly built on premium versions of the service described above.
- **Medical hotlines:** Health hotlines are popular in Bangladesh, with several well-publicized services offered through mobile operators and telecentres. Aponjon's automated message service was designed to be a more cost effective alternative than medical hotlines for obtaining basic health information. However, many pilot participants asked for the ability to be linked to a health professional, especially if the messages for the week generated questions or confusion. Because some subscribers may seek to speak with medical specialists as a result of hearing Aponjon information, direct linkages to these commercial services will be established, with clear information about charges to be incurred. Negotiations are underway with an established medical hotline for revenue-sharing opportunities for subscribers referred.

The revenue potential of the illustrative services described here will be incorporated in future versions of the business plan.

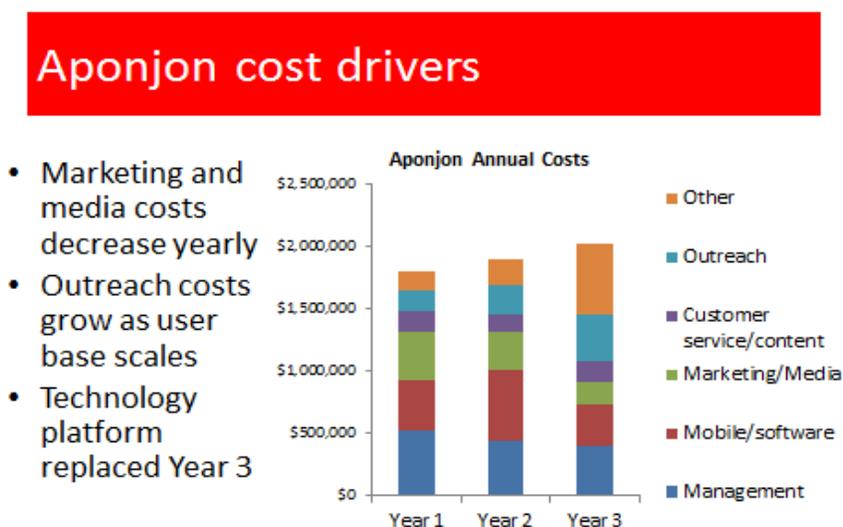
## COSTS

Aponjon requires many cost inputs to achieve its objectives, and several design decisions necessitated large upfront investments. Most significantly, to ensure that the service is available to those most in need, with low literacy levels and the least resources, an interactive voice response (IVR) platform was built to host and deliver the recorded messages. Mobile voice services are much more expensive than SMS or data services, and require more extensive investment in platform integration and testing with

mobile operators. More than 90 percent of Aponjon pilot subscribers have chosen the IVR version over the SMS version of the service.

Other major cost categories are described below, including extensive marketing and customer support to build and serve high subscriber numbers, and personnel with a breadth of skills. These extensive operational costs must be balanced against the income potential and market realities of the service.

Figure 7: Aponjon cost drivers



## Program Management

Staffing to support this novel information service is a major cost center, and must be scaled appropriately to support subscriber growth, generate private and public sector financing, and avoid long-term operational deficits. Management of this enterprise requires human resources with a breadth of skills in planning, program administration, media and marketing, finance, legal, monitoring and evaluation, research, information technology, product design, partner outreach and negotiation, knowledge sharing, customer service and stakeholder relations. Program management also includes direct costs for rent, utilities, travel to field sites, vehicles, regulatory fees, office equipment, computers, meeting support, and publications including training manuals.

As revenue assumptions are tested in the early years of the service, MAMA Bangladesh management resources will be re-allocated as needed in response to service uptake, funding streams, and partnership demands. With the introduction of new services, personnel and other program management direct costs are expected to decrease over time as a percent of total because these overhead costs will be distributed across a wider range of services. Using Year 1 as baseline year, planning assumptions include 25 percent reductions in Aponjon management costs for Year 2, and a 40 percent reduction in Year 3.

## Technology Platform

Aponjon was designed as a dual format service, offering weekly messages in both text (SMS) and recorded voice (IVR) format. A software platform is needed to host the content and delivery schedule, and provide the connection to mobile operators for delivery and receipt of messages from registered users.

MAMA guiding principles support the use of open source, open architecture mobile platforms for economic replication in other markets. MAMA Bangladesh conducted extensive research with industry experts and mobile operators and concluded that these objectives could not be met with today's IVR technology for high scale services. Currently the only feasible high capacity IVR options are through proprietary "commercial grade" IVR systems. These non-portable proprietary systems have been built to the specific complex requirements of the local mobile operators in Bangladesh.

SSD-Tech was selected through an RFP process and is providing Aponjon's IVR and SMS technology platform through the design, pilot and launch phases. SSD-Tech is responsible for software development, hosting and maintaining the message delivery system, producing web-based access for reporting and providing interface with mobile operators. Separate negotiations are required to establish interconnection terms with each of six licensed mobile operators, including access to each operator's billing gateways to permit collection of service charges.

The SSD-Tech contract for national launch phase is limited to one year, subject to renewal, as D.Net explores the most cost effective long-term options for voice delivery. Under the terms of the contract, D.Net is renting an existing SSD-Tech's platform, and pays separately for software upgrades needed on service design or reporting features. SSD-Tech has set a per-minute charge to cover hardware and license fees of 1.2 BDT per message (approximately \$.015).

As the subscriber base grows, this rental model with per message payments is not sustainable. Aponjon is exploring alternative models, to increase flexibility and decrease costs. Two options are under review. The first scenario requires investment in development of a more modular web-based platform that takes advantage of trends in voice over Internet protocol (VOIP) and open source switching platforms. Such a software platform would serve as a "bridge" between a simple web interface and a mobile operator's network to replace the hardware-dependent design of SSD-Tech's platform.

Prototype versions have been developed and used for small scale operations but significant research is needed to test at large scale, to ensure that the platform is stable under high call volumes. If the web-based platform tests are successful, estimated savings in Year 3 would be substantial. This business plan reflects both the research and development costs necessary to establish the feasibility of the approach, and the potential savings in the third year of service.

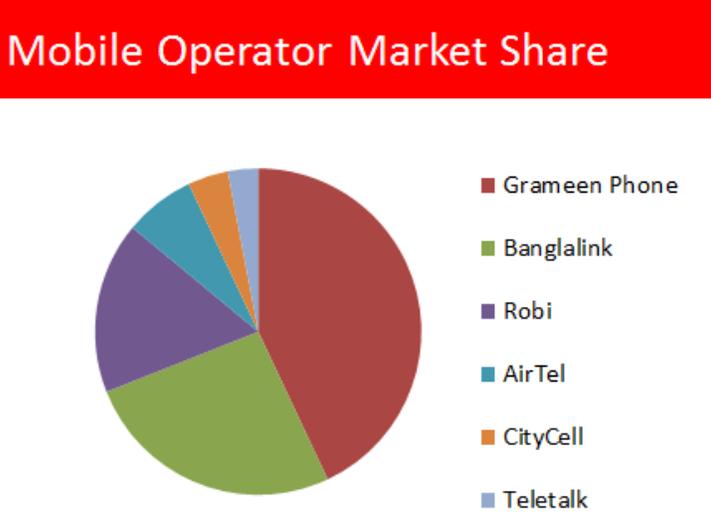
A second scenario is for D.Net to invest in a stand-alone traditional IVR platform, to avoid the per minute license fees of the rental model. This approach would require investments in hardware, software licenses and servers, with overall savings beginning in Year 4. Building internal IVR capacity and connectivity directly with the mobile operators would lower long-term costs but require increased D.Net resources and exposure to technology failures.

### Mobile Operator Payments

Mobile operators have a critical role in ensuring the success of Aponjon as the service requires local mobile networks to deliver messages to their subscribers. The economics of Aponjon’s business model is closely linked to operator connectivity requirements, billing capabilities, service offerings, pricing, and partnership capacity. MAMA Bangladesh has expended much effort to accommodate, facilitate, and inspire mobile operator support and participation in Aponjon service.

There are six licensed operators in Bangladesh.

Figure 8: Mobile operator market share



To promote the broadest availability possible, Aponjon will be accessible to subscribers of all mobile networks within Bangladesh. An alternative to this approach is to forge exclusive partnership opportunities with one or more operators, to escalate service growth in the early years. This latter approach recognizes that mobile operators will have greater incentives to support services that differentiate them from their competitors, and help them attract and retain customers.

During early partnership-building period in 2010, MAMA Bangladesh intended to work with the largest operator, Grameenphone, exclusively during the pilot phase to ease

time to market and optimize their support, with the expectation of opening service to all operators within a year. This approach assumed that it would be more cost efficient to test the platform with a single operator, and that an exclusive partnership would provide the strongest incentives for an operator to support and promote the service. Aponjon shifted this approach during the pilot when it became clear that (1) technical variations among the six networks required design input from each to accommodate their idiosyncratic requirements, (2) subscriber targets in several pilot locations would not be met working with a single carrier, and (3) exclusivity during only the pilot phase did not result in significant financial support. Grameenphone provided \$3,367 in CSR donations (by waiving per-minute charges) during the pilot.

Connectivity negotiations are taking place with each of the operators, with customized terms to reflect each operator's policies, service and support levels. Through these connectivity negotiations, a number of financing approaches have been considered. At one end of the continuum, mobile operators could become resource partners and donate "free" airtime to Aponjon. This approach has been implemented in the US in the text4baby program, in which all US mobile operators have agreed to provide free SMS messages for text4baby subscribers. This philanthropic model is more challenging for voice services which utilize greater network resources than SMS, and shift significant operational costs to the operators. As with all models relying on voluntary contributions, those contributions can be withdrawn as company financial priorities change, threatening long-term sustainability.

The approach currently being pursued by MAMA Bangladesh is to negotiate revenue-sharing agreements, which are standard practice for commercial value added services. This model gives operators incentives to use their considerable marketing budget to promote Aponjon. For example, operators may provide Aponjon blast promotions to their entire subscriber base to build awareness. During the pilot, contract terms provided for 50/50 revenue split. With support of MOH and BTRC, MAMA Bangladesh has reached agreement for more generous terms of 55 percent Aponjon, 45 percent mobile operator. An objective of 60% Aponjon, 40% mobile operator revenue-sharing terms has been established, and incorporated into the business plan assumptions.

MAMA Bangladesh will explore additional options for reducing operator costs such as working with the regulatory agency to set a fixed charge per minute to cover operators' direct costs independent of consumer price for service. Given that agreements with mobile operators are individually negotiated, it is possible that different cost-sharing arrangements will be negotiated with different operators. Price for service will be same tariff across all the operators, to be established by D.Net.

## **Marketing and Mass Media**

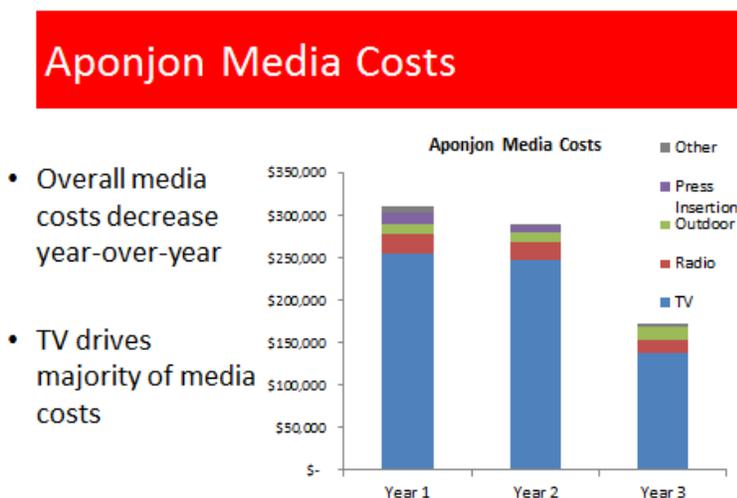
Aponjon is a mass market consumer service, and a national media strategy to create demand for and promote the service will be a large cost center. In the detailed communications strategy developed by Unitrend, a comprehensive brand awareness campaign was developed to reach more than 50 million consumers over the next three years. The communications strategy utilizes both below-the-line (BTL) community

based activities and above-the-line mass media channels to deliver on the marketing objectives. The strategy is designed to overcome barriers to uptake including traditional social mores, unfamiliarity with value added services, and lack of perceived need for health information.

The mass media campaign will use all available channels, including print, billboards, radio, and internet, to build brand awareness, targeted as appropriate for specific audience segments. Television airtime constitutes a large portion of Aponjon’s budget, with year round campaigns scheduled. An episode TV drama is planned for Year 1 that will feature the stages of pregnancy and newborn care, with an emphasis on the importance of timely information. The government of Bangladesh is a critical partner in funding media access, with state-owned BTV and Bangladesh Betar have significant audience reach. MAMA Bangladesh will pursue endorsement from the Ministry of Information to secure the highest discounts possible.

Community outreach activities are equally important. BTL communications, including dramas, mobile vans, brochures, local talk shows, and tin boards to reinforce national media messages and target those with limited mass media access. To further enhance trust in the service, Aponjon will collaborate with religious leaders, maternal circles, and other locally based organizations to reinforce the Aponjon brand. Celebrity endorsements will also be solicited, with testimonials providing key sales drivers.

Figure 9: Aponjon media costs



## Outreach

Civil society and government health partners play a critical role in the success of Aponjon. Formative research confirmed that known intermediaries are needed to build trust in the service. In addition to providing personal testimonials about the credibility of the information and the relevance to keeping mothers and babies healthy,

intermediaries will help women register for the service, especially for users not familiar with mobile VAS registration or knowledgeable about estimating their due dates.

MOUs are currently in place with Outreach Partner organizations that employ community agent who provide health education services to Aponjon target audience: BRAC, Smiling Sun Franchise Program, Save the Children Mamoni project, SMC, DGHS and DGFP, and D.Net InfoLadies. In total these Aponjon Outreach Partners oversee a total of more than 100,000 field agents deeply integrated into their communities. These agents will personally promote Aponjon to clients in their catchment areas, and distribute brochures and other Aponjon marketing materials. In addition, outreach partners contribute to ongoing research with users of the service, provide introductions to key community focal points and thought leaders, identify technical or other Aponjon service challenges, and support community activities to encourage self-registration.

D.Net provides partnership management and support to outreach partners through convening orientation sessions, conducting training and covering travel costs to attend, producing marketing materials and registration log books, and reimbursing health workers for the mobile phone charges incurred. To compensate health workers for their time and effort, and provide incentives for demand creation activities, D.Net introduced an incentive of BDT 10 (\$.12) per enrolled Aponjon subscriber. This amount was established through a stakeholder processes with outreach partners during the pilot phase.

## **Customer Service Center**

Aponjon's automated message delivery service is supported by a customer service center. Live operators are needed to assist with registration, log complaints and address technical problems with the service. Pilot phase research confirmed strong user preference for live assistance during registration process, with women seeking assurance that they have registered correctly and understand how they will be charged. Customer service representatives help women determine their due date so they receive the correct messages, facilitate system updates to reflect birth of baby and transition to newborn message stream, help customers cancel service, and assist with formative research to obtain user input on the service.

The number of customer service representatives will increase as the subscriber base grows. At the same time, D.Net will continue to explore cost reductions through increased automation of services, and opportunities for new sources for revenue from the call center activities. Costs to support the customer service staff include training, supervision, monthly salaries, and rental space at established call center.

## **RISKS AND UNCERTAINTIES**

Underpinning the goals and assumptions in this business plan are many uncertainties. As a new kind of service, targeting many who have never subscribed to a mobile VAS in the past, there is no market data upon which to build projections for subscriber uptake

or pricing, and no financial records upon which to attract corporate investors or advertisers. Aponjon is an innovative offering in a rapidly changing market of mobile audio “edutainment.” It has the potential to both shape a new service category and be shaped by evolving consumer tastes for phone based services.

Through rapid iteration and flexible responses to the market, MAMA Bangladesh will continually test premises, learn by trial and error, and develop contingency plans. The journey to financial profitability will not be linear. If one revenue source fails to materialize, resources will be focused on developing others. If one set of partners fails to support the enterprise, efforts will shift to identify alternative cost-share partners.

**Table 5: Aponjon uncertainties**

<b>Overview Aponjon Uncertainties</b>	
<b>What is known</b>	<b>Key uncertainties to be market tested</b>
<ul style="list-style-type: none"> <li>• There is consumer demand for trusted health information</li> <li>• Pilot users value message content and service design</li> <li>• Community agents are enthusiastic to enroll Aponjon subscribers</li> <li>• Government commitment is high</li> <li>• Technology platform works</li> <li>• Media strategy in place to reach 50 million</li> </ul>	<ul style="list-style-type: none"> <li>• Over what timeline service subscriber enrollment targets can be achieved</li> <li>• Pricing of service and messages ads</li> <li>• Incentives for corporate partners to contribute</li> <li>• Feasibility of lower cost technology platform</li> <li>• Improved terms with mobile operator</li> <li>• Revenue potential of additional premium and/or bundled services</li> </ul>

Two of the greatest risks in reaching the financial goals of this business plan are:

- (1) Lack of an operational alternative IVR system to replace high-cost proprietary platform.** As described in the technology platform section, Aponjon will work with third-party vendors of VOIP services and developers of modular web-based software platforms to test the feasibility of alternatives to SSD-Tech’s hardware-dependent system. Potential obstacles include challenges integrating such a platform with existing mobile operator billing systems, poor reliability of call delivery, and/or unwillingness of mobile operators to support. If a web-based or other voice platform is not feasible, and per minute charges to SSD-Tech continues in Year 3, Aponjon cost would increase by an estimated \$740K.
- (2) Failure to attract sufficient corporate investment at target levels.** Aponjon will actively recruit corporate sponsors and offer customized co-branding and visibility channels to entice partner contributions to the enterprise, with a target of raising approximately \$1.2 million over the three years. However, the novelty and lack of track record or current subscriber base also make it challenging to demonstrate Aponjon’s value proposition. To mobilize corporate CSR funds, a convincing case must be made that the brand will enhance the sponsor’s public image, and that the service is sustainable and not likely to fold. Significant barriers to corporate support include a challenging economic climate, a crisis in the banking sector, and many competing and urgent good causes to support.

To address potential funding shortfalls from these and other uncertainties, Aponjon would reduce planned TV airtime expenditures and replace with lower costs BTL activities, seek more favorable revenue sharing terms with mobile operators, and extend donor timeline and levels of support to reach sustainability goal. Aponjon will also address potential cost pressures with investment in premium services designed to leverage core Aponjon service platform. These investments may include new partnerships, and/or new research and development with potential for additional revenues yet to be estimated.

This business plan will be revised and updated every six months to reflect progress toward all targets against this plan. As market data is collected and partner developments are tracked, assumptions will be recalibrated, with new justifications for financial projections provided. The MAMA Bangladesh partnership will continually innovate and refine its approach to deliver a service that both meets the health information needs of its customers and achieves financial security.

## **CONCLUSION**

MAMA Bangladesh is a pioneering venture, the first national scale audio health information service targeting maternal child health in a developing country. Through MAMA's vision and start-up funds, Aponjon was designed by local institutions with deep knowledge about the values and culture, technology use, and barriers to better health for women in Bangladesh. Under active government stewardship, a diverse set of partners have joined together who perceive the potential benefits of Aponjon and will share its costs. Through the commitment, creativity and flexibility of these implementing partners, Aponjon will address the varied risks and barriers to financial stability noted in this business plan. By carefully documenting the assumptions and changes along the way, the intent is to provide greatly needed evidence about mhealth business models and offer lessons learned for future program developers.

# ANNEX: Summary Annual Costs and Revenues

<b>COSTS (USD)</b>	<b>PILOT July 2011 to June 2012</b>	<b>YEAR 1 July 2012 to June 2013</b>	<b>YEAR 2 July 2013 to June 2014</b>	<b>YEAR 3 July 2014 to June 2015</b>	<b>TOTAL</b>
Volume Independent (Fixed Cost)	\$672,217	\$1,750,313	\$1,392,259	\$1,391,926	\$5,161,715
Volume Dependent (Variable Cost)	N/A	\$240,062	\$744,185	\$655,031	\$1,639,278
Total Cost per Year	\$672,218	\$1,990,375	\$2,136,444	\$2,046,957	\$6,800,993
Total Cost per Message	N/A	\$.45	\$.14	\$.07	N/A
<b>Cost Breakdown (high level)</b>	<b>July 2011 to June 2012</b>	<b>July 2012 to June 2013</b>	<b>July 2013 to June 2014</b>	<b>July 2014 to June 2015</b>	<b>TOTAL</b>
Marketing/media	\$78,609	\$397,543	\$300,049	\$185,149	\$961,350
Outreach	\$47,254	\$155,018	\$247,437	\$375,321	\$825,031
Customer service/content	\$51,540	\$168,198	\$140,049	\$164,494	\$524,281
Technology/R&D	\$68,423	\$527,337	\$723,898	\$376,381	\$1,696,039
Mobile charges		\$54,353	\$131,515	\$452,745	\$638,613
New services development		\$79,012	\$98,765	\$39,506	\$217,284
Monitoring, formative research	\$6,566	\$45,766	\$26,952	\$28,128	\$107,412
Personnel	\$210,661	\$446,761	\$346,762	\$298,026	\$1,302,210
Project management (excluding personnel)	\$164,164	\$116,387	\$121,017	\$127,207	\$528,775
<b>TOTAL COST</b>	<b>\$627,217</b>	<b>\$1,990,375</b>	<b>\$2,136,444</b>	<b>\$2,046,957</b>	<b>\$6,800,993</b>
<b>REVENUE (by source)</b>	<b>July 2011 to June 2012</b>	<b>July 2012 to June 2013</b>	<b>July 2013 to June 2014</b>	<b>July 2014 to June 2015</b>	<b>TOTAL</b>
User fees		\$145,328	\$351,644	\$713,577	\$1,210,549
Message ads		\$54,498	\$263,733	\$356,788	\$675,019
CSR Support Local	\$72,847	\$208,333	\$370,370	\$555,555	\$1,207,105
Gift for Mothers		\$98,379	\$478,888	\$1,074,530	\$1,651,797
USAID Support	\$492,081	\$532,807			\$1,024,888

J & J Support	\$231,635				\$231,635
<b>TOTAL REVENUE</b>	<b>\$796,563</b>	<b>\$1,039,345</b>	<b>\$1,464,635</b>	<b>\$2,700,450</b>	<b>\$6,000,993</b>
Projected Deficit/ Additional donor support needed					\$800,000