

PARTNERSHIPS FOR INCREASED INNOVATION IMPACT

The Role of the SL@B Program in Facilitating Partnerships in the Maternal and Newborn Health Ecosystem

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EXECUTIVE SUMMARY

The **Saving Lives at Birth (SL@B) program** is a partnership of the United States Agency for International Development (USAID), the Norwegian Agency for Development Cooperation (NORAD), the Bill and Melinda Gates Foundation (BMGF), Grand Challenges Canada (GCC), U.K. Department for International Development (DFID), and Korea International Cooperation Agency (KOICA) established to reduce global maternal and newborn deaths and stillbirths. Between 2011 and 2020 (Rounds 1 through 8 of SL@B), the program has funded 93 organizations proposing 116 unique innovations to address major challenges in maternal and newborn health across different countries.

This brief highlights the role that the SL@B program has played in fostering and facilitating partnerships for its grantees. Partners needed along an innovation's pathway to scale include governments, commercial manufacturers, health systems and facilities, implementing organizations (such as governmental and nongovernmental organizations) among others. The Duke Evaluating SL@B (ESL@B) team conducted 18 key informant interviews (KIIs) with SL@B innovators to gather data related to partnerships and the role that SL@B played in facilitating partnerships for them. Additionally, the team analyzed survey data from SL@B innovators about the non-financial support received from SL@B, including SL@B support in facilitating partnerships, with a response rate of 54% (n=61). Consolidating insights from the KIIs and survey data, the team provides key recommendations for how SL@B partners can better facilitate and foster partnerships for innovations to grow and scale.

Two SL@B partners, USAID and GCC commissioned this study as part of the program evaluation of Saving Lives at Birth. Findings from the program evaluation are available in the report, "[Evaluating Saving Lives at Birth: Evaluation Report, Rounds One to Eight \(2011-2020\)](#)," published by Duke University, and include multiple sources of data used for the analyses, findings, and recommendations for the SL@B program.

KEY FINDINGS

1. Overall, innovators have benefited significantly from the DevelopmentXChange (DevX)* via the convening of leading MNH ecosystem stakeholders, and increasing the visibility and connections with other innovators.
2. Innovators highly value the capacity-building and technical assistance they received at DevX to make pitch decks and business proposals, which are critical to engage with any potential partner.
3. Across the SL@B program, there is an opportunity for even more proactive support for potential partnership identification and development, including with private sector organizations, national and sub-national public sector health organizations, and organizations with local expertise.

KEY RECOMMENDATIONS FOR MNH INNOVATION AND FUNDING COMMUNITY

We draw on interviews and survey data to highlight three data-driven recommendations applicable not only to the SL@B program, but also to the broader funding community and innovation ecosystem.

1. **Implement tailored strategies for innovators to facilitate targeted partnership connections, including with other funders.**

The funding community should develop and refine the strategy used by SL@B to make targeted and proactive connections for innovators more consistently. The funding community also needs to proactively coordinate engagement between innovators and other innovation funders to make targeted connections at different growth stages based on the profile and need of innovators.

*The DevelopmentXChange (DevX) is an annual event organized by the SL@B partnership every year since 2011. It has been traditionally held at USAID headquarters in Washington, D.C. and attended by SL@B innovators, SL@B finalists, and potential scaling partners for SL@B innovations.



2.

Proactively engage LMIC national and sub-national stakeholders early, jointly determine priorities, and curate validated innovations that can be scaled in different countries based on need and demand.

Engagement with local public and private sector stakeholders, particularly in priority LMICs should be intentional and strategic elements in funders' program design.



3.

Engage with procurement platforms to support procurement for validated innovations.

MNH innovation funders are aptly poised to facilitate introductions to global platforms for procurement of innovations across different countries (e.g., UNICEF) in the WHO list. Similarly, a program like SL@B can ensure stable production by facilitating global procurement of innovations into countries where they are needed.

■ INTRODUCTION

SAVING LIVES AT BIRTH: BRINGING TOGETHER DIVERSE COMPETENCIES TO ACHIEVE SUSTAINABLE SCALE

The Saving Lives at Birth (SL@B) program is a partnership of the United States Agency for International Development (USAID), the Norwegian Agency for Development Cooperation (NORAD), the Bill and Melinda Gates Foundation (BMGF), Grand Challenges Canada (GCC), U.K. Department for International Development (DFID), and Korea International Cooperation Agency (KOICA). The SL@B partnership, established in 2011, pooled resources to create a grand challenge to address preventable global maternal and newborn deaths and stillbirths. According to GCC, *“A grand challenge is one or more specific critical barrier(s) that, if removed, would help solve an important health problem in the developing world with a high likelihood of global impact through widespread implementation.”*¹ Such approaches source innovative ideas across the world from diverse disciplines, funders, and stakeholders to address critical challenges.

However, addressing complex global health challenges needs more than a gamechanging innovation to create lasting impact. At least as important as the innovations themselves are the strong partnerships that are needed to grow and support the innovation along the complex pathway from idea to scale, and ensure its sustainability. Not only do partnerships provide technical, financial, and implementation support, but they are also crucial in forging connections with public and private sectors, and gaining broader stakeholder engagement.

WHAT DID SL@B SET OUT TO ACHIEVE IN THESE AREAS?

In the current era of Sustainable Development Goals, the role of global partnerships in bringing together multiple stakeholders and sectors to advance global health equity and address health challenges is well-known. Articulated in both the SL@B Theory of Change² and SL@B’s call for proposals is the recognition that an innovation’s pathway to scale and sustainability involves partnerships with the public and private sectors to create lasting impact. The SL@B Theory of Change describes the facilitation of partnerships as the connections that are made both by the SL@B program, and by the innovators themselves. The Theory of Change also highlights the DevelopmentXChange (DevX)^{*} as a platform for matchmaking, both within the innovator community, and between innovators and potential collaborators and/or mentors. In SL@B’s call for proposals, the program emphasizes that *“strong collaborations and commitments will enable and deploy more effective and sustainable solutions”*.^{**}

^{*} The DevelopmentXChange (DevX) is an annual event organized by the SL@B partnership every year since 2011. It has been traditionally held at USAID headquarters in Washington, D.C. and attended by SL@B innovators, SL@B finalists, and potential scaling partners for SL@B innovations.

^{**}SL@B call for proposals, Rounds 6, 7, and 8.

■ GOALS OF THIS BRIEF

The primary goal of this brief is to highlight the role played by the SL@B program in fostering connections and partnerships for its grantees. It also sheds light on the range of partnerships that innovators have made and need to make to move their innovation to scale. Additionally, the brief provides recommendations for how SL@B and similar funding programs can better support their innovators in developing and maintaining partnerships.

The brief addresses the following key research themes:

1. Partnerships established by SL@B innovators;
1. Role of SL@B in facilitating transformative partnerships for its innovators;
2. Opportunities for program improvement in facilitating partnerships; and
3. Key recommendations for SL@B and other programs to better facilitate partnerships for their innovators.

■ DATA AND METHODOLOGY

The SL@B team conducted semi-structured interviews with 18 SL@B grantees to gather qualitative data to inform this brief. The research team purposively selected innovators across different implementation countries, innovation types, and rounds for interviews. In addition, the team conducted site visits in India to interview two innovators and one implementing partner for one of those innovators. The research team also fielded an online survey among SL@B grantees to understand their pathway to scale. The survey had a response rate of 54% (n=61); responses from the survey related to partnerships was used for this report. To supplement these data, the team also analyzed innovators' progress and milestone reports received from USAID and GCC.

Limitations with these methods include the small sample size. With 18 qualitative interviews and a 54% response rate on the quantitative survey, the sample is not representative of the SL@B portfolio. For this reason, we have refrained from making definitive conclusions at the portfolio level but have described what we found as insights informed by illustrative examples. A second limitation relates to the inherent biases involved in self-reported data: all of the data used in this brief are self-reported.

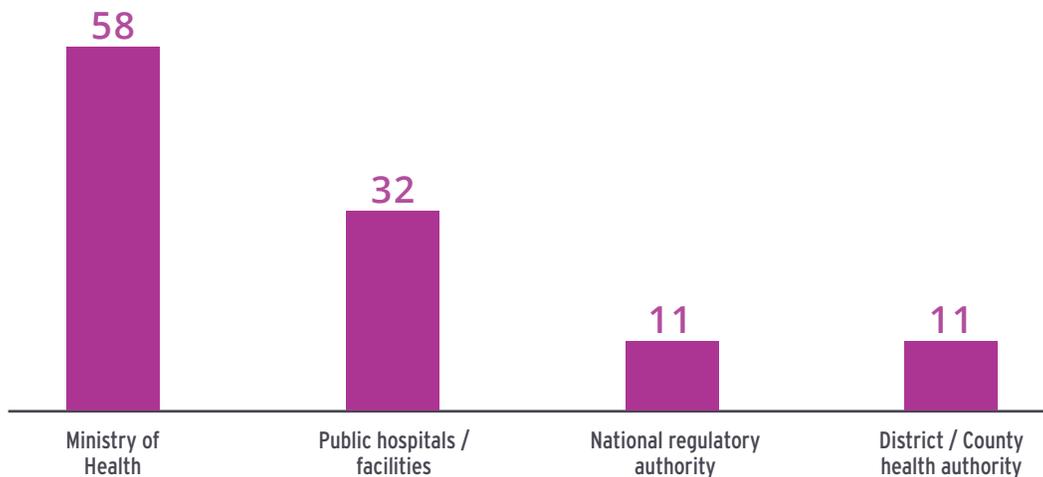
The Institutional Review Board at Duke University reviewed and approved the study protocol. All participants provided their written informed consent to participate in the interviews.

PARTNERSHIPS FORMED BY SL@B GRANTEES

Using data from milestone and final reports, the ESL@B team identified partnerships that SL@B innovators reported creating to make progress on their innovations. SL@B innovators across innovation types and growth stages have pursued a variety of partnerships with stakeholders in both high-income (HICs) and low- and middle-income countries (LMICs). Grantees' responses to the online survey indicate that the scaling pathway of most innovations involves partners, whether through a multi-stakeholder partnership (61%), inclusion as a policy recommendation (31%), or government procurement of the innovation (52%).

Overall, 92% or 107 out of 116 unique SL@B innovations have established at least one partnership in the public, private, or academic/research sector. Of these, two-third, or 72 unique innovations (67%) have established one or more partnerships with public sector stakeholders to pilot, adopt, or integrate their innovation into the health system. Over half of the 72 innovations have established partnerships with the Ministry of Health (n=58), which is significant, given that adoption or integration of an innovation within health systems is a key scaling strategy, with the potential to serve hard-to-reach populations as well as large numbers (see Figure 1).

Figure 1. Number of SL@B Innovations with Public Sector Partnerships

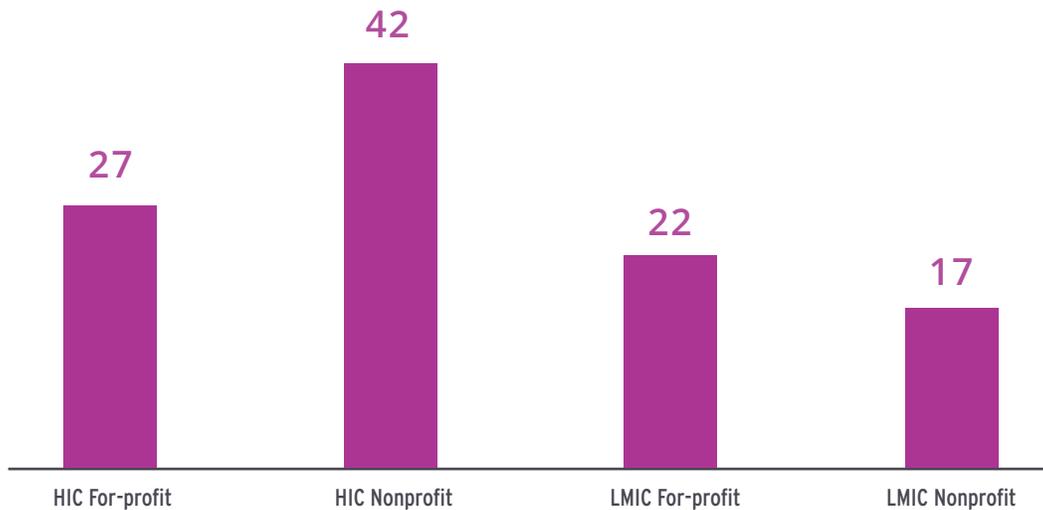


Source: Progress and final reports from SL@B innovators received from USAID and GCC.

SL@B innovations have also been actively engaged in partnerships with other key government stakeholders, including national regulatory authorities, sub-national health authorities, and hospitals and facilities. Many innovations hold partnerships with two or more of these stakeholder groups. For example, Massachusetts General Hospital (MGH), in their implementation of an evidence-based training package on the administration and monitoring of ketamine for essential surgeries when no anesthesiologist is available, established partnerships with county and national health authorities, professional societies, and public and private facilities in Kenya. MGH works closely with the in-country implementing partner and county health authorities to identify facilities that are best suited to support the implementation of the ketamine training package. Thus, partnerships have been required at multiple levels to achieve the end goal of program implementation in a sustainable manner. BEMPU, in scaling up distribution of their hypothermia alert bracelets engaged with multiple levels of state and central regulatory authorities as well as procurement bodies prior to procurement. They also had to work with numerous individuals and other key stakeholders to ensure that their product was approved and could be used within facilities in India.

Nearly 60% (n=69) of SL@B-funded innovations have one or more partnerships with a private sector entity. Across the portfolio, SL@B innovations have been successful in forming private sector partnerships with stakeholders in both HICs and LMICs, and with for-profits and non-profits (see Figure 2). Partnerships with for-profits include pharmaceutical and device manufacturers, supply chain organizations and distributors, and organizations that provide technical, R&D, and corporate support. Partnerships with non-profits include a significant number of local implementing partners. Examples of such diverse partnerships include Bempu, INMED and Mbarara University.

Figure 2. Number of SL@B Innovations with Private Sector Partnerships



Source: Progress and final reports from SL@B innovators received from USAID and GCC.

For example, Bempu sells their hypothermia alert bracelets directly, and through distribution partners in India and LMICs. INMED, a global humanitarian development organization, has partnered with Little Sparrows Technologies, a HIC social for-profit start-up, Brigham and Women’s Hospital, and Bilimetrix, an Italian-based start-up spun off from an academic institution to deliver the Bili-kit in low-resource-settings in Peru. Bili-kit is a suite of technologies to screen, diagnose, and treat neonatal jaundice. For the augmented infant air resuscitator, Mbarara University partnered with Philips, a HIC multinational technology company to produce the device, as well as with local non-profits for thought leadership and facilitation of local networking.

ROLE OF SL@B IN FACILITATING TRANSFORMATIVE PARTNERSHIPS FOR GRANTEES

Beyond point-solutions to reduce maternal and neonatal mortality are global health partnerships that are critical to transforming health and healthcare in LMICs. Transformative partnerships are based on the principle of respect towards both individuals with the health need and the community in which they are embedded, elevating critical health issues to the core of national agendas through their shared decision-making with multi-sectoral partners, and seeking to create sustainable impact.³⁻⁵

In this section, we summarize responses from innovators on the online survey on the partnerships support received from SL@B, as well as the voices of innovators from key informant interviews on the role that SL@B has played in facilitating transformative partnerships for them.

FINDINGS FROM KEY INFORMANT INTERVIEWS

Innovators credit two noteworthy aspects of SL@B's support which enhanced their ability to establish key partnerships.

Value of DevX for Partnerships

1. *Broadly, the value of DevX for participants related to partnerships included initiating new partnerships, preparing for partnerships, and having the platform to engage with future partners.* All innovators in the interview sample found value at DevX to both make partnerships and to build their capacity to engage with future partners. Innovators emphasized that although these connections emerged organically through interactions at DevX with industry stakeholders, they highly valued DevX as a platform that brings such important stakeholders together.

Key informants noted that DevX is a great opportunity for innovators to come together, network, and meet potential collaborators. Innovators initiated important conversations at DevX, both with industry stakeholders that would be instrumental in moving their innovation forward, and with other innovators to identify areas of collaboration, including exploring new geographies or diversified focus areas.

Of the grantees who credited DevX for facilitating their partnerships, one was directly facilitated by SL@B, and another one was established at another conference, but was strengthened at DevX. Two other grantees mentioned that their future partner organizations sought them out after hearing about their innovation at DevX, but did not meet them there. One grantee also formed a partnership with a mentor whom they met through DevX, after which they identified mutual areas of interest and potential collaboration, and eventually established their partnerships as peers.

"The connection with a pharmaceutical company was a consequence of our first SL@B grant. I think it speaks to the utility of SL@B beyond simply the funds that are provided to grantees. We received the first grant in 2011; it was at the early stages of our program and it was the same year we were given the Peer Choice Award at the Development Exchange in 2011. It was subsequent to that that we actually had 2-3 large pharmaceutical companies approach us." – SL@B innovator (drug)

"As we were going through the SL@B process at the Development Exchange, representatives from X organization were there, and after SL@B, they contacted me and asked if we would consider working with them, sort of combining efforts. And so, we got together and talked to join forces." – SL@B innovator (device)

"We started out as novices, you know in-country, we did not know what a business plan was, but now, we have all that. So, if I look at it from the human capacity, we have been able to develop as an organization, it's significant. I have learned how to engage, how to package information, and how to make a business case. And that's invaluable." – SL@B innovator (device)

"What has come up was more getting to meet technical experts who've been able to help us find solutions to the whole process of rolling out the intervention. So, getting to know people who come to DevXs, there are people we know who mentored us through this process, to get us to where we are." – SL@B innovator (device)

Innovators who did not form partnerships at DevX also highly valued their participation in DevX and noted that it helped them network and engage with mentors, funders, and technical experts. The exposure through DevX to business models, marketing, and pitch decks, combined with targeted capacity building efforts, helped innovators talk to potential collaborators and funders as well as think more clearly about the partnerships that would be needed to roll out their interventions for scale up. It also provided them the opportunity to refine their pitch, showcase their innovation, describe progress made, and seek out collaborators for specific needs at particular stages.

Direct Matchmaking

2. *Innovators valued the utility of SL@B providing targeted matchmaking support to connect them with potential collaborators.* Partnerships facilitated through direct matching by SL@B are also mentioned as an important assumption in the theory of change for innovations to scale sustainably.

The SL@B program has also facilitated connections to other partners for its grantees to address other needs that were relevant to their growth stages. As an example of these partnerships, program partners connected a SL@B grantee with a researcher from a HIC, who helped the grantee design a risk assessment tool that was a critical component of their mHealth platform for maternal health. The tool helped the grantee secure additional funding based on its current and future potential to triage and treat at-risk pregnant women. Additionally, grantees consider the SL@B peer-review process that their innovation goes through as an important mechanism for vetting by potential collaborators which opens doors for them to engage with future partners and funders.

"What I came to learn was that [device manufacturer] had reached out to [SL@B Funder] to look into their portfolio of innovations and see which ones may be ready for private investment and partners from that. So when [SL@B Funder] learned that we were in talks with [device manufacturer], that was positive, and also when [device manufacturer] knew that [SL@B Funder] was supporting us through SL@B, that was another thing that I think facilitated the growth of this relationship, because then we had [SL@B Funder] that trusted us, [SL@B Funder] that trusted [device manufacturer] and [device manufacturer], which cultivated this growing relationship."

– SL@B innovator (device)

"Getting an award from SL@B is a rigorous peer reviewed and competitive process, and the fact that by the time we met [device manufacturer], we had gotten a seed award from SL@B already that we successfully implemented, and we were auditioning for a validation grant which they saw us 'Win' at that meeting, was very powerful. I think it helped some of them believe in the technology more because of all these people and peer review process that technology was going through." – SL@B innovator (device)

Transformative Partnerships Established by SL@B innovators

3. In the KIIs, SL@B innovators highlighted the critical junctures at which the partnerships they established with SL@B support made a significant difference to help their innovation advance to the next stage of growth. Based on interview data with the sample of SL@B innovators, Table 1 highlights illustrative key partnerships that SL@B innovators formed, which subsequently became turning points for the trajectories of their innovations.

Table 2. Global Health Priorities and Burden of Disease Funded by SL@B and Other Funders

Key Partnerships	Partner Sector	SL@B Innovators' reasons for Partnership	SL@B Innovators' Partners' reasons for Partnership	SL@B Support towards Partnership
Development partnership	Private (academic, for-profit)	Developer provides cost-effective solution to address critical needs in innovator's region or focus area	Leverage innovator's local, on-the-ground networks and connections	Initiation of partnership dialogue at DevX Endorsement of innovation by SL@B program
Manufacturing partnership	Private (for-profit, NGO)	Manufacturer obtains technology (open or restricted license) from innovator to commercialize innovation at scale	Leverage innovator's focused research and clinical expertise	Initiation of partnership dialogue at DevX Direct matchmaking between innovator and manufacturer Endorsement of innovation by SL@B program
Government partnership	Public	MoH provides regulatory approval to roll out innovation in country MoH identifies districts to roll out innovation	Trust in innovator's expertise Evidence of innovation's effectiveness Alignment with MoH priorities	Endorsement of innovation by SL@B program
Distribution partnership	Private (NGO and for-profit) and Public	Distributor brings supply chain efficiencies in country of implementation	Innovator provides clinically validated solution to address MNH challenges in country	Initiation of partnership dialogue at DevX between SL@B innovator and International NGO

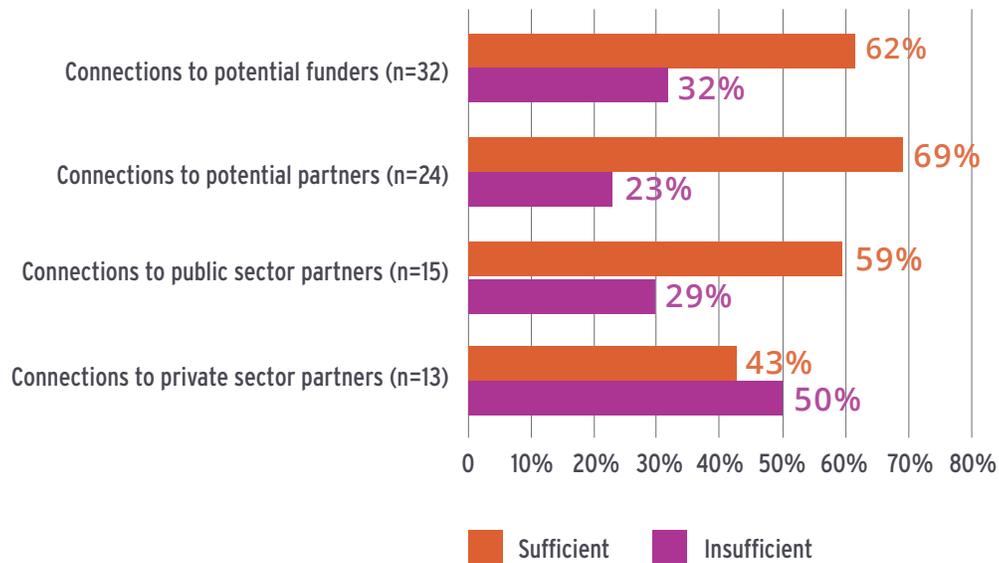
Source: Key informant interviews with sample of SL@B innovators conducted by the ESL@B team.

The ESL@B team also examined the acceleration trajectory of five SL@B innovators who were key informants to the partnerships analysis based on their responses to the online survey. Of note, findings suggest that SL@B innovators with key partnerships such as those described above spent fewer months in each growth stage relative to the average number of months spent by all innovators who responded to the survey.

FINDINGS FROM INNOVATOR SURVEY

Highlights from the innovator survey validate the findings from the key informant interviews that, unlike most funders, *a key programmatic element of SL@B that grantees value is the facilitation of connections for its grantees*. Of the innovators who responded to the survey, 56% (n=34) reported that SL@B facilitated connections with potential funders, 28% (n=17) reported that SL@B facilitated connections with public sector partners, and 23% (n=14) reported that SL@B facilitated connections with private sector partners. The survey also asked respondents to indicate whether the partnerships support they received from SL@B (if applicable), was sufficient or insufficient among other elements of technical assistance. Figure 3 summarizes data indicating whether innovators felt that SL@B support in facilitating connections with various stakeholders was sufficient or insufficient.

Figure 3: SL@B Partnerships Support, by Percent of Innovators Reporting it as Sufficient or Insufficient



Source: SL@B innovator survey developed and administered by ESL@B team.

Note: Total number of survey respondents is 61. The number of innovators who reported SL@B-facilitated connections is noted in parentheses. Bars show the percent of innovators who reported that the helpfulness of each type of SL@B-facilitated connection was sufficient or insufficient.

Figure 3 demonstrates that the support towards forming partnerships provided by SL@B program staff has been valuable to innovators to make connections with different stakeholders including potential funders, public sector partners, and other partners. However, the figure also shows areas of where the program could more directly address innovator needs, particularly in facilitating connections with private sector partners.

OPPORTUNITIES TO FACILITATE STRONGER PARTNERSHIPS IN THE ECOSYSTEM

Innovators consider the SL@B program as more than a funding partner. They expressed that the program has been an important point of call to connect them with other innovators as well as with key stakeholders to learn, discuss, and grow.

While innovators appreciated the training sessions and the opportunity to make connections at events, they felt that SL@B and similar funders in the ecosystem can play an even greater role in the support they provide to help innovators make targeted connections. Interviews with SL@B innovators revealed that while they highly value SL@B's efforts in facilitating connections for them, they note that these connections are not consistently available for all promising SL@B innovations.

Findings from the innovator interviews are consistent with the responses to the online survey about the extent to which SL@B support in facilitating connections with potential funders, partners, public and private sectors was helpful and sufficient. Data from interviews and innovators' milestone reports also shed more detail on the kinds of connections innovators are seeking and what they perceive would be valuable in moving their innovations forward.

"When you look at the SL@B community, you've got this whole ecosystem of innovators, all of whom might well have very different technologies that they're developing but a lot of going through exactly the same challenges and how to learn to implement a product in these situations. So, that's been a great source of connection, discussion, and good information." – SL@B innovator (drug)

PRIVATE SECTOR AND FUNDING PARTNERS

Innovators expressed that they needed significant additional funding, particularly after they have proven that their innovation is effective and their SL@B funding has ended to support their adoption, integration, and scaling efforts. SL@B and other programs could be more intentional and proactive in addressing this funding gap after SL@B's exit from an innovation and provide targeted connections to funding and implementing partners at later stages of development to help take the promising innovations to the next stage on their scaling pathway.

"We are still seeking other donor partners to allow us to expand and fill in some of the financial gaps. Part of that is that we would have liked to see a greater proportion go to [developing partner] so that they could continue to do more of the technology development. But we really needed the majority of the [SL@B] grant just for the implementation piece. So, there is a little bit of a financial gap there." – SL@B innovator (diagnostic)

CASE STUDY: JSI Research & Training Institute, Inc. (JSI) -- Chlorhexidine

With a mission to improve the health of underserved people and communities, JSI Research & Training Institute, Inc. (JSI) is a non-profit organization that has implemented more than 2,500 projects in 107 countries across the world, since its establishment in 1978.⁶ One of the projects that JSI led was the **SL@B-funded** Chlorhexidine Navi (Cord) Care Program (CNCP) to address newborn sepsis/infection in Nepal.

Infection accounted for almost 70% of newborn deaths in Nepal, mainly due to unclean practices during home births, where the umbilical cord is cut with sharp non-disinfected household objects and then covered with turmeric, mustard oil paste, or other traditional practices.^{*7}

In 2006, research conducted by Johns Hopkins University in Nepal showed Chlorhexidine's (CHX) efficacy in reducing infections caused by bacterial contamination of the umbilical cord stump.⁸ JSI conducted pilot studies and collaborated closely with the Nepali government and a local pharmaceutical company to create a standard antiseptic gel formulation of the product and a sustainable method of distribution, primarily through Female Community Health Volunteers. Based on promising results from the pilot studies, the government standardized CHX use as part of the national essential newborn care guidelines. In 2011, JSI received the **SL@B Transition-to-Scale award** to support the government's plan of scaling up CHX across Nepal.^{9,10}

JSI, in partnership with the government, achieved **nationwide coverage** in Nepal by the end of the SL@B funding period, in 2017. **A total of 2.1 million newborns have received CHX umbilical care, resulting in an estimated 9,600 newborn deaths averted during the SL@B funding period.**^{*9} JSI's program activities to achieve scale included incorporating CHX into the Nepal government's maternal and neonatal health (MNH) policy, integrating CHX within existing government MNH programs, coordinating with the government and private sector to secure continuous product supply, and appending CHX guidelines in the Nepal medical professionals' training curriculum.^{*} Despite CHX's wide coverage, the Nepal national compliance survey (household and homebirths) revealed a 59% usage rate which indicates continued room for improvement.¹¹

SL@B's funding and technical assistance were pivotal in JSI's CHX scale up in Nepal. JSI indicated that they received "highly helpful" support from SL@B in a number of areas, particularly through DevX, facilitation of connections to potential partners for scale (non-funding), support for publication in open access journal, highlighting CHX in communications pieces (blogs, briefs, social media) and promoting through media channels), and nominating and/or connecting innovators for speaking/ conference opportunities, e.g. Grand Challenges meeting, GES, Unite for Sight, and others).⁺



Photo credit: <https://www.jsi.com/project/chlorhexidine-navi-cord-care-program/>

JSI's scale up success can primarily be attributed to its close partnership with the Nepali Ministry of Health, building on existing systems using Female Community Health Volunteers, and reliable in-country production of CHX ensured sustainability.

WHO added CHX to the Essential Medicine List for Children (EMLc) in 2013, largely based on Nepal's research findings.¹² As a result, Nepal has served as a model for others countries interested in scaling up CHX and emulating JSI's CHX implementation strategy. During the SL@B period, **JSI provided technical assistance, coordinated with the Global Chlorhexidine Working Group, and led study tours and learning visits for more than 200 visitors from 20 countries; Bangladesh, Ethiopia, and Nigeria to name a few.**^{*} Furthermore, JSI made its program data, monitoring and evaluation, training and advocacy tools publicly available to support CHX-adopting countries. In recognition of its global advocacy efforts, the program received the USAID Global Science and Technology Pioneer Prize in 2013.¹³

* JSI SL@B Final Report, 2017

+ Evaluating SL@B Quantitative Survey completed by JSI, 2019.

PUBLIC SECTOR

Several innovators reported that they have a critical need for connections with the public sector in different countries to adopt and scale their innovation. In particular, innovators with little prior history of engaging with government stakeholders could significantly benefit from the additional boost from large funders to make the right connections with national health authorities as well as national and sub-national governments.

“There is another category of partners that in my mind is critical and those partners are partners that will be able to adopt and deploy. This could be ministries of health or health multinationals/ organizations, and that kind of partnership is what is not very strong right now. [SL@B funder] can write to ministries expressing their enthusiasm in the technologies that show promise and ask ministries how they [ministries] can further help innovators; request innovators to co-apply with ministries if the innovation has reached some degree of maturity requiring implementation studies. This could bring greater ministry involvement but will require innovators to engage ministries more.” – SL@B innovator (device)

These engagements are complex because of the different levels of public sector partnerships as well as the variability across countries. Additionally, in some countries such as India, there is considerable heterogeneity between states in terms of priorities and ease of operations. While it is crucial to get regulatory approval from the central government in India, state governments ultimately lead efforts to adopt and scale an innovation.

In some cases, gaining a foothold in larger countries through the public sector can open doors in other countries for roll out and adoption. According to one key informant, having regulatory approval from Ghana, for example, is often an access point to reach other countries in West Africa, while approval from Kenya opens doors to other countries in East Africa.

The case study of JSI's chlorhexidine project illustrates how one SL@B grantee found collaboration with a local government crucial to scale their innovation.

LOCAL EXPERTISE

A significant proportion of SL@B innovators originate from HICs, thus it can be difficult for them to make local connections and identify strong organizations with the right capabilities and expertise to adopt and implement the project in target LMIC markets. Innovators need on-the-ground support with organizations who have the capabilities to provide implementation support, as well as deep networks among the public sector, health care providers, and community of users. This is particularly helpful for key milestones such as getting regulatory approval, testing user acceptability, creating advocacy platforms, providing training support, and distributing their innovation.

“If you rely purely on government to implement something like this, the chance of success is very low. For them to take up a new idea and implement it, it is very, very hard. So, if you have somebody like [large local implementing partner] coming to the government and saying – look, we will help you introduce the product, we will provide backup support. So, the importance of having a nonprofit organization, the need for a non-governmental or a voluntary organization to work hand in hand with the government at the national level is also critical in my opinion, based on my experience.” –SL@B innovator (nutrient)

INTERNATIONAL ORGANIZATIONS

For both LMIC and HIC innovators, introductions and endorsements from their funders to major global health organizations can foster collaboration to address shared goals. Innovators expressed strong interest in being connected to global bodies such as the WHO, UNAIDS, and UNICEF, but do not have the opportunity to form these connections. The goals for connections with global organizations are three-fold:

1. Regulatory approval and/or inclusion in standards or guidelines issued by such organizations is usually well-recognized around the world.
2. The capacity of public international organizations (PIOs) to serve as global conveners for procurement of innovations could ensure that needed innovations are produced at scale.
3. Global organizations are well positioned to navigate political challenges and instability, helping local actors, particularly in the public sector, take responsibility for implementing and scaling.



"If I go to any country and I speak to health ministries, and I propose something, their first question is – do you have WHO recommendations of this, and if WHO recommendations are there, they will accept it as a very good valid validation and they're much more confident to move. Otherwise, if you come up with some idea for which there is no WHO opinion, they are less keen to take/adopt it." -SL@B innovator (nutrient)



"If you take for example Global Fund, Global Fund is deeply working with political authority in countries and have them set up what they call a country coordination mechanism, but at a political level, it is very high. The requirement from donor is very high for the government to be more involved. But you know how governments are in Africa, political instability and also, if it is coming from one partner, one to three NGOs, they take their time but if they have this type of support coming from the top level with big donors, I feel like this Saving Lives at Birth partnership, I think that could help us to accelerate the process." - SL@B innovator (mHealth/practice)

KEY RECOMMENDATIONS FOR MNH INNOVATION AND FUNDING COMMUNITY

We draw on interviews and survey data to highlight three data-driven recommendations applicable not only to the SL@B program, but also to the broader funding community and innovation ecosystem.

1.

Implement tailored strategies for innovators to facilitate targeted partnership connections, including with funders.

The funding community should develop and refine the strategy used by SL@B to make targeted and proactive connections for innovators more consistently. In particular, DevX emerged as a valuable platform to convene public and private sector stakeholders and for innovators to network and form connections. In that vein, other funders in this space could consider holding similar convenings in LMICs where it is easier to engage and form meaningful connections with key local stakeholders. The funding community also needs to proactively coordinate engagement between innovators and other innovation funders to make targeted connections at different growth stages based on the profile and need of innovators. A number of funders provide stage-specific funding; early-stage funders such as SL@B could use its position to convene funders of later-stage innovations and develop a coordinated pipeline of funders to scale innovations.

Multi-stakeholder partnerships (private, public, and PIO) are crucial for innovators as they go through a scaling pathway. While SL@B recognized the need to foster a supportive community for innovators, key stakeholders in the MNH innovation ecosystem would need to address this gap as well, in providing targeted support to innovators consistently (e.g. with funding partners, commercial manufacturers, national and sub-national authorities, exit strategies, PIO endorsements).

2.

Proactively engage LMIC national and sub-national stakeholders early, jointly determine priorities, and curate validated innovations that can be scaled in different countries based on need and demand.

Engagement with local public and private sector stakeholders, particularly in priority LMICs should be intentional and strategic elements in funders' program design. Suggested ways for funders to incorporate this include:

- a. Engage ministries and key local stakeholders in an advisory function prior to sourcing to ensure that innovations meet the needs and priorities of stakeholders in target countries.
- b. Invite LMIC public and private sector stakeholders to attend forums like DevX and the Grand Challenges Annual Meetings (GCAM) held in LMICs, to meet innovators, learn about innovations, and assess potential collaboration opportunities.
- c. Convene an integrated marketplace for innovations at the country or regional level with country stewardship and ownership of the platform. A national or regional marketplace would provide an opportunity for countries to select the most impactful innovations for their context, and to integrate scaling efforts with local health and financing systems. Similar efforts currently exist, such as the EWEC Innovation Marketplace, which closely collaborated with SL@B; but these efforts need to be strengthened and extended to the MNH funding community more broadly.

3.

Engage with procurement platforms to support procurement for validated innovations.

MNH innovation funders are aptly poised to facilitate introductions to global platforms for procurement of innovations across different countries (e.g., UNICEF), and inclusion of validated innovations in the WHO list. Given the fragmented nature of several of the key causes of mortality across geographies, even when a clinically validated solution is available and is backed by a commercial scale manufacturer, it is not often possible to manufacture at scale if the intended market is only within one country. A program like SL@B can ensure stable production by facilitating global procurement of innovations into countries where they are needed.

REFERENCES

1. Grand Challenges Canada/Grand Défis Canada. The Grand Challenges Approach. 2011. <https://www.grandchallenges.ca/wp-content/uploads/2017/11/thegrandchallengesapproach.pdf>. Accessed on 22 June, 2020.
2. Lalli M, Ruysen H, Blencowe H, et al. Saving Lives at Birth; development of a retrospective theory of change, impact framework and prioritised metrics. *Global Health*. 2018;14:13. doi:10.1186/s12992-018-0327-z
3. Powell DL, Gilliss CL, Hewitt HH, Flint EP. Application of a Partnership Model for Transformative and Sustainable International Development. *Public Health Nurs*. 2010;27(1):54-70. doi:10.1111/j.1525-1446.2009.00827.x
4. Buse K, Tanaka S. Global Public-Private Health Partnerships: lessons learned from ten years of experience and evaluation. *Int Dent J*. 2011;61(s2):2-10. doi:10.1111/j.1875-595X.2011.00034.x
5. Saldinger A. What Makes a Global Health Partnership Succeed. *Devex*. <https://www.devex.com/news/what-makes-a-global-health-partnership-succeed-84858>. Accessed on 22 June, 2020.
6. JSI. International - JSI International Public Health Management. <https://www.jsi.com/international>. Accessed on 22 June, 2020.
7. USAID. Nepal's Navel Glazers. *USAID Stories*. <https://stories.usaid.gov/nepals-navel-glazers/#page-9>. Accessed on 22 June, 2020.
8. Mullany LC, Darmstadt GL, Khatri SK, et al. Topical applications of chlorhexidine to the umbilical cord for prevention of omphalitis and neonatal mortality in southern Nepal: a community-based, cluster-randomised trial. *Lancet (London, England)*. 2006;367(9514):910-918. doi:10.1016/S0140-6736(06)68381-5
9. JSI. Journey to Scale: Bringing a Lifesaving Commodity to Newborns Across Nepal. <https://www.jsi.com/journey-to-scale-bringing-a-lifesaving-commodity-to-newborns-across-nepal/>. Accessed on 22 June, 2020.
10. JSI. Introducing Chlorhexidine in Nepal.
11. Lamichhane B, Khanal L, Shrestha P, Dawson P, Singh S. Nepal Scale up Chlorhexidine as Part of Essential Newborn Care: Country Experience. *J Nepal Health Res Counc*. 2018;16:359. doi:10.3126/jnhrc.v16i3.21443
12. World Health Organization. World Health Organization Model List of Essential Medicines, 21st List. Geneva; 2019.
13. JSI. Nepal as Global Leader in the Use and Scale Up of Chlorhexidine. <https://www.healthynewbornnetwork.org/hnn-content/uploads/Nepal-Global-Leadership-Chlorhexidine.pdf>. Accessed on 20 June, 2020.



CONTACT

Krishna Udayakumar, MD, MBA

Co-Principal Investigator
Director, Duke Global Health Innovation Center,
Duke Global Health Institute
Associate Professor of Global Health and Medicine
ku@duke.edu

Joy Noel Baumgartner, PhD, MSSW

Co-Principal Investigator
Director, DGHI Evidence Lab,
Duke Global Health Institute
Associate Research Professor of Global Health
joy.baumgartner@duke.edu

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Sowmya Rajan, PhD
Blen Biru, MSc
Andrea Taylor, MSW
Kate Crissman, MPH
Pratik Doshi, MS
Joy Noel Baumgartner, MSSW, PhD
Krishna Udayakumar, MD

Duke Global Health Innovation Center, Duke University
Duke Global Health Institute Evidence Lab
Duke Global Health Innovation Center, Duke University
Duke Global Health Innovation Center, Duke University
Duke Global Health Innovation Center, Duke University
Duke Global Health Institute Evidence Lab
Duke Global Health Innovation Center, Duke University

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