

BUILDING FOR SUSTAINABILITY

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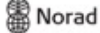


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Building for Sustainability

Executive Summary

Accelerating Saving Lives at Birth (A-SL@B) seeks to increase both the scale and sustainability of promising innovations in the Saving Lives at Birth (SL@B) portfolio. This brief defines sustainability in global health innovation in terms of both continuation of operations and impact, with the former being necessary but not solely sufficient to support the latter. Using data collected throughout the A-SL@B program as well as innovator interviews, we share progress narratives for three innovators who are successfully building towards sustainability: PharmaChk, Gradian Health Systems, and D-tree International. Interviews with engagement managers provide additional insight as to challenges innovators may face in achieving sustainability, as well as strategies for building towards this goal.

High-level key takeaways on building for sustainability include:

- Financial sustainability is necessary but not sufficient to achieve impact sustainability
- Innovators should ensure both internal and external alignment within the team and with their partners, respectively
- To build a sustainable social enterprise, innovators must have a deep understanding of the local context, including the target market, stakeholder landscape, and supply and distribution infrastructure
- Innovators should plan for sustainability from the early stages.
- Funders should consider the potential for both impact and financial sustainability when selecting innovations to fund.

Introduction

Accelerating Saving Lives at Birth (A-SL@B) seeks to increase both the scale and sustainability of maternal and newborn health (MNH) innovations identified in the Saving Lives at Birth (SL@B) portfolio. Both scale and sustainability are needed in order to achieve impact. Sustainability in this context refers to the continuation both of the innovator organization's operations, as well as the innovation's continued impact.

In this thematic brief, we aim to:

1. Define sustainability as it relates to global health innovation,
2. Describe the challenges that innovators face in building towards sustainability, and
3. Provide recommendations to innovators on how their organizations can work towards achieving sustainability.
4. Help funders think about potential for sustainability amongst innovator applicants and innovators within their portfolios

Program Context

A-SL@B is an accelerator program that supported a cohort of 43 MNH innovators between January 2018 and January 2020. The program seeks to increase the scale, sustainability, and effectiveness of promising innovations in the SL@B portfolio, with the overarching goal of improving maternal and newborn health (MNH) outcomes across the globe. A-SL@B innovators strive to identify and fill gaps in existing health systems, and they work to improve health outcomes that occur before, during, and in the 48 hours after birth, the period when the majority of maternal and newborn deaths occur. A-SL@B seeks to help these innovations reach scale by engaging a team of experts to provide support including:

- **Coaching & mentoring** (ongoing customized support from program implementers and other experts in the field of MNH innovation)
- **Tools and resources** (to identify target audiences for communications and to develop commercialization plans)
- **In-person events**, including an annual workshop and an annual showcase
- **Virtual support activities** (i.e., webinars and online peer group meetings)

The A-SL@B portfolio is composed of innovations and innovator teams at varying stages of development. Approximately half of the portfolio is relatively early stage; innovators are working on ideation and prototypes. Later stage innovators whose products and/or services are more mature and developed make up the other portion of the A-SL@B portfolio; they are, for example, working towards scaling through entering new markets, securing additional funding, or perhaps pivoting their work in a more sustainable way. A-SL@B grantee goals are wide-ranging—from attaining proof-of-concept for an innovation to expansion into other communities or countries to increasing market share. Many of the innovations stem from universities or other research institutions and have been created by individuals or teams with excellent technical knowledge of their innovations but relatively little experience in bringing an innovation to market. These teams need guidance on how to bring an innovation to market or to license it, who should lead that work, and whether to develop the venture themselves or seek strategic partnerships. Some innovators are based within larger institutions, including hospital networks and global non-profits, in which projects compete with each other and a range of other organizational work for development.

Each innovator team was supported by one of three engagement teams, each made up of two engagement managers. Innovators were invited to participate in monthly check-in calls with their engagement teams. In between the calls, engagement teams and innovators were in regular email communication as both parties worked to follow up on their action plan items and challenge areas of concern identified during the calls.

A-SL@B uses a staging framework to categorize innovators into one of three stages of growth. Stage 1 innovators are early innovators still in the idea and prototyping stage, working on proof-of-concept and beginning to seek a sustainable business model. Stage 2 innovators are operational but need to focus on understanding their target customers, refining their value proposition, prioritizing growth strategies, deepening their market hypotheses and next steps, establishing and validating potential marketing and distribution channels, and developing

strategies to drive demand for their products. Stage 3 innovators are more mature innovation teams that are ready to scale (Duke and VentureWell 2019). While A-SL@B innovations target low- and middle-income countries in various regions of Africa and Southeast Asia, the majority of the portfolio is headquartered in North American and European countries¹.

Methods

To inform this paper, a literature review was first conducted to explore how sustainability is defined in the global healthcare innovation and related fields. Next, in December 2019 all six A-SL@B engagement managers were interviewed about sustainability as it relates to global health innovation. They were asked to define sustainability in global health innovation, what steps are necessary for an innovator to achieve it, and what challenges those innovators face in building sustainability.

Next, innovator action plans developed during A-SL@B Xcelerator events (intensive, multi-day, in-person workshops), notes from monthly check-in calls with engagement managers, and other summaries of innovator progress from engagement managers and implementation partners were reviewed to identify three innovators that had made significant progress on sustainability over the course of the A-SL@B program: PharmaChk, D-Tree International, and Gradian Health Systems. In January 2020, the aforementioned data sources were analyzed to establish initial narratives for the three innovators. Based on these initial narratives of the progress each of the innovators made over the course of their participation in A-SL@B, interview questions were developed to further refine and elaborate on the innovators' experiences. One-on-one interviews were conducted in February and March of 2020 with representatives from the three innovator organizations. The data from these interviews were integrated with the original progress narratives to produce the case studies below. All engagement managers and innovators were given the opportunity to provide feedback on drafts of the case studies before they were finalized.

Defining Sustainability in Global Health Innovation

In the context of A-SL@B, (for example, in the A-SL@B project work plan and in innovator action plans), sustainability is primarily used in reference to an organization's business plan and defined by the progress of an innovator organization towards being able to maintain operations without depending on short-term external funding. Sustainability in this context is defined as the continued financial viability of an organization. Much of the literature on social enterprise and entrepreneurship also adheres to this definition, emphasizing the difficulty of maintaining financial viability while also delivering a social good, the value of which may not be reflected in typical market dynamics. A-SL@B engagement managers largely focused on this definition of

¹ The A-SL@B team classified innovations as either one in a low and middle-income country (LMIC) or high-income country (HIC) based on the registered headquarters of the primary organization listed on the award. Even if some of the HIC-based organizations have operations led by a local country office, we classify such entities as HIC-based as they have access to stronger networks for fundraising and may be more competitive in submitting grant applications than other LMIC-based organizations. However, this classification could potentially miss the fact that country offices are the primary recipients of the award, their leadership and staff have autonomy in decision-making, and that the innovation itself is embedded in LMIC-settings. See Evaluating A-SL@B Final Report, 2020.

sustainability in interviews, emphasizing that in order to be sustainable, an organization must have at least enough money coming in to cover operational costs.

However, when it comes to global health innovation and social entrepreneurship, sustainability extends beyond the ability to stay in business. Gregory Dees, cofounder of Duke University's Center for the Advancement of Social Entrepreneurship, wrote that social entrepreneurs differ from business entrepreneurs in that they have a mission to "create and sustain social value" (Dees 2001). In Dees' view, social innovation isn't just about delivering a social good while creating a sustainable business; it is also necessary "to create systemic changes and sustainable improvements." In this context, sustainability centers around an innovation being able to provide continued impact. The International Development Innovation Alliance (IDIA) echoed Dees' views by recognizing sustainability as one of the "three key impact domains," including scale and impact on beneficiaries, for measuring the success of an innovation (IDIA 2017a).

Some of the engagement managers interviewed also spoke about sustainability in terms of creating sustainable health systems change and the impact of innovations on health. They mentioned strategies such as building local capacity, long-term adoption of innovations by health centers, and staying mission-oriented. Along the same lines, the IDIA innovation evaluation framework provides indicators of potential and actual innovation sustainability, which include "smart partners," external funding or support, potential or actual revenue generated, potential or actual policy/systems change, and improvements in innovator capacity (IDIA 2017a).

Sustainability and Scale

In the A-SL@B project work plan, sustainability is usually referred to in conjunction with scale or scalability, though the two are distinct, interrelated concepts. Scalability has been defined in the health innovation literature as "deliberate efforts to increase the impact of health service innovations successfully tested in pilot or experimental projects so as to benefit more people" (WHO 2010), and is associated with volume, growth, and market penetration. Meanwhile, sustainability has to do with continuation over time—as one engagement manager puts it, "Can the operation, at whatever volume, be maintained indefinitely?" Sustainability can be maintained at any scale, and should be a goal at every stage of development and any size of endeavor, from a "mom and pop grocery store to global corporation," according to another EM.

The IDIA's "Insights on Scaling" describes sustainability as an integral piece of scale. "Scaling should be viewed holistically as the process of replicating, adapting, and sustaining an innovations across...geographies and populations for transformational impact," according to the report. Sustainability and scaling are both necessary for impact, and "need to be considered jointly (IDIA 2017b)."

The IDIA has created a scaling architecture which consists of six stages of scaling: Ideation, Research and Development, Proof of Concept, Transition to Scale, Scaling, and Sustainable Scale. Sustainable Scale is defined as the "wide-scale adoption or operation of an innovation at

the desired level of scale” (IDIA 2017b). Along the same lines, one engagement manager spoke of sustainability as “the next stage of scale.” Achieving sustainability may be a long-term goal, but it is a goal innovators should be working toward from an early stage. Innovators in the IDIA stages of research and development, proof of concept, and transition to scale should consider how to build an innovation and a business that will be ultimately scale sustainably. The following case studies illustrate some of the strategies that innovators have used to build innovations that are sustainable in terms of financial viability and impact.

Case studies

Case Study: PharmaChk

PharmaChk is a Boston University-based A-SL@B innovator working to develop a portable and easy-to-use platform that provides instantaneous assessment of medicine quality at any point in the supply chain. As an early-stage innovator, PharmaChk is primarily focused on development of its technology and business model. The team has spent a considerable amount of time prototyping and engaging stakeholders to make sure that the product will fit market demand. At the same time, PharmaChk has been working to secure partners to move towards commercialization. The team recognizes that although research grants might finance pursuit of answers to important research questions, they need to pursue funding that will help get the technology into the hands of regulators. The next step demands PharmaChk to develop strategic partnerships. The team will also need to identify potential customers and develop a financially sustainable business model. In the long-term, the team needs to take their product to market and generate revenue to achieve financial sustainability. This, in turn, will enable them to deliver sustainable impact, one of the driving principles behind their work.

In 2018, PharmaChk partnered with and received funds from a corporate strategic partner to further develop, test, and iterate its product, as well as develop a business model and conduct a market analysis. Together, the two partners brainstormed ways for PharmaChk to build a sustainable business while also generating sustainable impact. It was important to PharmaChk team members to create impact in the short term as well as the long term, but they did not want to do that in a financially unsustainable way. They knew they needed to be strategic about their business model and deciding where to launch the product. During the A-SL@B program period, PharmaChk worked with its corporate partner to conduct market analysis, identify customer segments, develop a value proposition, and create a business model. Team members then refined, and pressure tested that market analysis and business model with engagement managers and implementation partner, We Scale Impact. PharmaChk is now in a position to conduct in-country market validation, and the organization has identified a strong candidate for a country in which to conduct pilot testing. Team members hope that an in-country pilot will enable them to demonstrate the efficacy of their product, create a demand for it, lay the groundwork for future commercialization and revenue generation, and clear a path toward sustainability.

PharmaChk's relationship with this corporate strategic partner has allowed the organization to advance product development, create a business plan, and explore the possibility to collaborate with the partner's in-country offices and local regulatory bodies on a future pilot study. All of these developments are indicators that PharmaChk is well on its way to having a plan for future sustainability. A PharmaChk representative acknowledged both the importance of developing partnerships in building a business and reaching a target population, as well as the challenges of relying on external partners for funding. He recommends talking to as many people individuals as possible when searching for partners, to understand early what potential partners' goals and needs are, and whether or not it would make sense to pursue a partnership. Goal alignment is essential as it is possible to have two parties that are committed to making an impact, but who would prefer to go about that in different ways. What particular funders are able or willing to pay for may or may not align with the innovator's mission and goals. The PharmaChk representative emphasizes that communication is key, and innovators must be clear on what compromises they can and cannot make in order to establish relationships that are mutually beneficial. Working to match the needs of potential product users and beneficiaries with the needs of other stakeholders is an inherently slow process, but necessary in the quest to find the right partners that help can deliver sustainable impact in the long term.

Case Study: Gradian Health Systems

Gradian Health Systems is a nonprofit technology organization that commercializes and develops, distributes, and sustains anesthesia and critical care equipment, including the Universal Anaesthesia Machine (UAM) and the Gradian Comprehensive Care Ventilator (CCV). Both products can operate in settings with unreliable access to oxygen and/or electricity. Through its local partners, Gradian sells its products to governments, hospitals, and other organizations for hospitals in low-resource settings to help healthcare providers deliver safe and needed care to patients who would otherwise not have access to surgical or intensive care (Gradian Health 2019).

Gradian demonstrates its commitment to impact sustainability in several ways, always considering both the commitment to the customer as well as their long-term strategy. They complement their technology with user training services to encourage adoption and continued and correct use. Gradian also provides a three-year-minimum service and spare parts warranty, which includes both preventative and corrective machine maintenance, minimizing financial risk to the customer. These services together ensure the machine remains well-functioning and the healthcare provider is supported, maximizing the use of the device. Before installing a machine, the organization always considers whether the local infrastructure exists to deliver the "full Gradian package" of machine, training, and warranty.

Thus, Gradian carefully considers each potential market before entering it. The team recognizes that patient need and user demand for their products is not the same thing and not enough to ensure that the organization will be able to deliver sustained impact. The country needs to have the right infrastructure in place, and Gradian will not sell in a country until that infrastructure is established. To deliver machines, training, and service warranty work, the organization partners

with in-country distributors who act as sales agents and service providers, clinical trainers, and biomedical engineers. By doing the legwork of spending time in markets and meeting with various distributors, Gradian finds distributors aligned with the organization's mission and values. The team negotiates agreement with distributors about pricing, roles, and responsibilities to establish a positive working relationship. These distributors become the face of Gradian in the markets, and Gradian has found that this partnership model engenders a strong sense of local ownership. Team members have seen cases, for example, of distributors continuing to provide support post-warranty because they are invested in their own reputations as service providers. By providing extended services, these distributors hope to retain customers for of both Gradian and non-Gradian products.

Gradian also partners with local and national governments, as many of the hospitals that buy the organization's products are government-funded public facilities. Team members see relationship-building with governments and alignment with national strategies as critical to the success of their work, and recommend that innovators who want to work with governments engage them from the beginning of the project. Early engagement with partners can help innovators figure out where the gaps are in the health system and how to fill them.

Before receiving their SL@B grant, Gradian had already identified Zambia as a priority market for the UAM. The Zambian government had just launched a National Surgical, Obstetric, and Anaesthesia Strategic Plan that outlined the need for reliable and safe anesthesia (Republic of Zambia Ministry of Health, 2017). Gradian had seen some momentum from one-off sales in the country. There was both need and demand for the UAM and for capacity building for the anesthesia workforce, but a lack of infrastructure was a barrier to effectively reaching end users. At the time, Zambia's funding for medical equipment procurement was limited, so the SL@B grant allowed Gradian to equip Zambian Ministry of Health-selected hospitals with UAMs and ongoing simulation-based trainings (in centralized locations and on-site at the hospitals) for healthcare providers.

Through the experience in Zambia, the Gradian team identified a need for more extensive capacity building for clinicians using the UAM. To that end, Gradian developed a three-day simulation-based training curriculum for its products to augment the one-day on-site orientation that traditionally accompanied the sale of any UAM unit. The team has since scaled this model to Tanzania, where they won a tender with the MOH for UAMs and have strong relationships with academic institutions. Gradian now has a simulation lab at several medical education institutions across the country.

Gradian's expansion into new markets and efforts in capacity building have generated interest and demand from potential users and customers for the simulation-based training, but also raised questions about how the organization would fund the training in other markets at scale. The team sees this comprehensive training as incredibly important as it "makes the difference in the UAM being used properly." The organization is scaling this training across other markets where they sell the UAM, and are exploring ways to make this more financially sustainable. Gradian sells the UAM to distributors at cost, while using grant funding to cover training efforts.

Gradian is exploring other avenues to support ongoing training and longer warranty periods, as revenue from sales alone is not currently enough to cover these ongoing trainings for every hospital that buys a UAM.

Gradian has been successful in fundraising and is currently able to operate on a hybrid revenue model of grants and product sales. Particularly important is the organization's relationship with a donor who provides unrestricted funding each year, allowing Gradian the flexibility to take risks with their service and financial models. To build toward less reliance on grants, the organization has been leveraging its grant funding to test different models to make the simulation labs and training more financially sustainable. Other strategies they are testing include mobile simulation kits that take the training to the customers, rather than using dedicated space for training; alternately, the organization might have a dedicated simulation training space that it could rent to others to generate additional revenue.

Gradian also recognized that due to customers' financial limitations, hospitals may opt out of extended service contracts following the three-year service warranty. This would limit Gradian's ability to service the technology and ensure its continued use in the field. The team is working on new tools for markets where there is a high concentration of out-of-warranty machines, such as the Gradian Advantage Plan that would provide refresher trainings and an extended service warranty at a tiered pricing model.

Part of Gradian's work with the A-SL@B team included revisiting the business model to identify a self-sustaining approach to training and meet the high customer demand for its products. The interest and scale of various funding and procurement opportunities of the UAM was outpacing its manufacturing capabilities. In response, the team developed financial tools including a more nuanced unit economic analysis of both products, revenue forecasting, and options for working capital to more efficiently respond to customer demand. Each of these steps has helped move Gradian towards a more sustainable financial model, increasing the chance that the organization will continue to provide products and services in the long term.

Case Study: D-tree International

D-tree International, a global digital health nonprofit founded in 2004, builds holistic digital health programs and supports human capacity to bridge healthcare service delivery gaps, improve accountability, and increase efficiency in health systems (D-tree International 2019). D-tree's approach prioritizes systems thinking, evidence and learning, innovation, and promoting sustainability and local ownership. D-tree's programs utilize their team's health and technology expertise to design, develop, implement and institutionalize health system improvement programs in 16 countries, serving over 2 million families. Programs vary in focus area, including an emergency transport system in Tanzania, tuberculosis management solution in Thailand, and a national community health volunteer program in Zanzibar.

One of the early sustainability-related challenges that D-tree faced was how to continue delivering impact after one of its funded projects ended. At that time, from around 2004-2008,

D-tree's portfolio primarily consisted of time-bound projects or interventions. While team members have always considered the program context and local health system, they did not yet have a clear direction on how to sustain and scale programs past the funding end date. Although the projects they implemented were high-quality and impactful, they were not sustainable.

As D-tree has grown, the organization has shifted to a programs-based approach that focuses on integration with local health systems and capacity building of partners. The team has been working in Zanzibar, Tanzania for nearly ten years, engaging directly with the government to strengthen the health system. In recent years, D-tree worked with the government of Tanzania to create a national digital and community health strategy, as well as a national digital solution encompassing maternal, newborn, and child health and early childhood development services. Through this program, D-tree has built government staff capacity through trainings and workshops on technology and data use. D-tree has worked to ensure that programming in Zanzibar is aligned with the jointly-created digital and community health strategies, and that the organization's work complements the government's work. By engaging with, aligning to, and building the capacity of partners, D-tree ensures that its programming easily integrates with local health systems, and that the impact can live beyond the organization's direct involvement. The challenge that D-tree currently faces is how to replicate the Zanzibar model to build sustainability into other projects, with the understanding that context will vary in new settings.

During the A-SL@B program, D-tree focused on organizational growth and sustainability. Leadership at D-tree therefore took a collaborative approach to develop D-tree values and refine the D-tree mission and vision. They recognized that value alignment among staff would be essential not only to the successful implementation of high-quality programs, but also to ensure long-term growth and development. To that end, D-tree finalized a set of eight organizational values, developed a hiring and onboarding guide, and started to train supervisors on leadership. The organization researched best practices about management and hiring new staff and created a clear onboarding process to quickly acclimate new staff to lead and be effective on programs. The hiring and onboarding guide and associated tools are currently under implementation and will continue to be tested and refined. Additionally, D-tree implemented an employee engagement survey in October 2019 to evaluate staff motivation and alignment with D-tree values, and to identify additional areas of improvement, including opportunities for new organizational-wide initiatives. D-tree hopes that these efforts will help the organization build and strengthen the team as it grows and continue to deliver impact through its programs.

As part of its work with the A-SL@B program, D-tree articulated the D-tree methodology applied in Zanzibar to support scalability of future programs. The methodology and approach were reflected in D-tree's strategy document released in Fall 2019 including D-tree's 5-year plan. D-tree also created program management guidance documents to support capacity building of D-tree's team and partners. D-tree introduced these tools to program teams and are

continuing to use and refine them. D-tree also investigated funding models to support long-term growth and financial sustainability.

Sustaining Impact

The Importance of Local Context

To build a product or service that can deliver continued impact, innovators must first understand the end user, customer, and local context. According to one engagement manager, one challenge that many early-stage and academic innovators face is that they are often innovating to solve a particular problem or shortcoming within the healthcare delivery system, but without talking to users, they may be unaware of additional problems that require a solution. A solution that does not meet user and customer requirements will not likely be adopted in the long term. To address this concern, engagement managers recommend spending extended time in the target market location in order to develop a deeper awareness of user needs and to understand how the local health system operates. It is also important to test the prototype with users, collect feedback from those users and from customers, and iterate on the product.

The likelihood of a health innovation's adoption depends on the local health system context, country infrastructure, and reliability of supply and distribution chains. When choosing a market to enter, innovators should conduct thorough research as to whether the innovation is appropriate in the local health and cultural context, whether they can identify a supply and distribution chain that allows them to reliably meet user and customer demand, and whether infrastructure issues or the political environment may prevent them from reaching their users.

Both engagement managers and innovators emphasize the importance of integrating into and working to strengthen local health systems. D-tree, for example, has partnered with the local government and invested in the capacity building of its partners. By working closely with the government of Zanzibar to develop a digital health strategy, the organization is positioned to effectively deliver programs to that population, while also helping to strengthen the overall health system. Similarly, Gradian has built up the infrastructure that it needs in-country to deliver products and services by partnering with local distributors and clinicians who can act as its sales team, service technicians, and trainers. The organization has also invested in local capacity-building through its product orientation and three-day simulation lab trainings. These efforts have increased demand for its products while strengthening the quality of local healthcare systems.

Building the Right Partnerships

As innovators look to build new partnerships, they should be strategic about choosing partners. In addition to ensuring alignment with the organization's vision and mission, a partner should also have the resources to help the innovation scale sustainably. These elements enable an innovation to deliver the intended impact. Both innovators and engagement managers agree. Gradian, for example, meets with various in-country distributors to find those aligned with the

organization's vision. Even though Gradian is a non-profit organization and many of its distributors are for-profit companies, the vision and mission alignment are still there. Choosing the right partners and establishing a mutually beneficial relationship with them sets the foundation for quality service delivery and a strong sense of local ownership, all of which aids Gradian in delivering its products. Meanwhile, D-tree has worked alongside the Zanzibar government to create a digital health strategy that works for both of them and will inform the work of each going forward.

Just as innovators need to ensure alignment with their implementation and service delivery partners, they also need to find alignment in their funding partners. Different funders have different priorities. What a potential funder is able or willing to pay is not always what will have the most impact. Alignment with vision and mission is also important in this relationship. Innovators must clearly communicate with funders to establish what compromises can and cannot be made, according to a PharmaChk representative. The results of such a communication will determine whether a partnership will be mutually beneficial or not.

Sustaining Operations

Social enterprises, like all enterprises, need financial resources to operate and continue delivering social value. So, maintaining financial viability is an essential piece of sustaining the innovative organization, as well as its impact. The “ideal” in financial sustainability is to be able to sustain the organization based on revenue, according to one engagement manager, but this can be difficult in low-resource settings where customer ability to pay may be limited.

To build towards future financial sustainability, early-stage innovators should look ahead to how their organizations will be funded in the long term—through grants, equity, debt, contracts, fee-for-service, subscription, rental, or a hybrid model. After conducting market research to better understand customer demand and market competition, innovators should be able to identify their long-term customers and to articulate a clear value proposition that meets those needs. PharmaChk, for example, did this by exploring commercial partnerships even while the product was still in development. Subsequently, the organization partnered with a corporation that helped develop a business model for future commercialization. PharmaChk is now in a position to test both the product and business model in the market to see if the model is viable and ultimately sustainable. The sooner innovators identify their customers and value proposition, and create a viable business model, the sooner they can start to generate sustainable income.

As the innovation develops and the innovator begins selling to customers, the organization should continue to validate its business model. At this stage, many organizations, particularly nonprofits with service-delivery models, will likely need to rely on some grant funding to maintain operations. Gradian is in that position, operating on a hybrid model of revenue and unrestricted grant funding. The organization is able to use revenue to pay operational costs and grant funding to test and validate additional services to increase impact, and to explore other models that may allow them to be revenue-sustaining in the future. At this stage, the innovator

should ideally focus on building a variety of customer bases, so as not to rely on a singular source of income.

Ultimately, the way in which an organization sustains itself financially will depend on type of innovation, market, and the organization's structure and mission. Some may be able to sustain operations based on revenue alone; some may rely on grant funding or a hybrid model indefinitely. For those innovators who will rely indefinitely on grants, it is essential to look ahead and prepare for the next grant, regardless of the stage of development or scale.

Before scaling, innovators need to have a solid business plan in place that ensures they can financially support operations as they scale. During scale-up, the innovator should also work to build sustained revenue streams from different customer bases, so as not to rely too heavily on a single market segment.

Balancing Scale with Sustainability

Impact is achieved through both scale and sustainability, which build on one another (IDIA 2017a). Financial resources and customer demand are necessary to achieve both. So, commonly cited strategies for scaling—such as identifying a customer and value proposition—contribute to both sustainability and to scale. Reaching more customers can mean more money coming in, which in turn can help the organization maintain operations for a longer period of time. At the same time, being able to demonstrate a plan for current and future commercial sustainability can attract partners and customers who can help scale the innovation (USAID Center for Accelerating Innovation and Impact 2016).

On the other hand, if an organization grows too fast without the proper infrastructure, it may not be able to meet demand and cover costs as it grows, one engagement manager noted. In order to scale sustainably the innovator must set up flexible systems that can adapt to growth, while giving the organization a firm backbone to overcome challenges it may face in the transition from early stage to growth. One important aspect of planning for growth is ensuring organizational capacity development. Innovators need to have the right team in place, not just for the current stage, but with the future in mind. The team's leadership should also work to ensure internal alignment on the organization's vision, missions, goals, and strategies. D-tree is an example of an innovator whose work to align values, establish an organizational culture, and hire and onboard individuals who fit into that culture will enable the organization to deliver impact well into the future.

Balancing Financial Sustainability with Impact

Although financial sustainability is usually necessary for impact sustainability, there can be tension between the two if what generates income is not the same as what generates impact. Academic and non-profit innovators may likely find it easy to stay focused on the organizational mission but find building for financial stability more challenging, according to one engagement

manager. For-profits, on the other hand, may be more likely to focus on revenues at the expense of health impact. If pursuing a dual market strategy,² for example, an innovator may find it more profitable to target developed markets rather than emerging markets, and as a result may see reduced impact where it is most needed.

An innovator should stay focused on the organization's vision and mission while laying the groundwork for financial sustainability. PharmaChk, for example, is partnering with experts to build, refine, and test its business strategy. By working with its corporate partner, PharmaChk is developing the means to deliver its product in a way that will have short- and long-term impact without sacrificing financial and impact sustainability.

Key Takeaways

Through our interviews with innovators and engagement managers, we identified the following key takeaways for innovators and funders building for sustainable impact.

For Innovators:

Financial sustainability

- Financial sustainability is usually necessary, but not sufficient, to achieve impact sustainability.
- Eliminate reliance on external funding if possible. Financial sustainability based on revenue alone is ideal but may not be possible for all innovator organizations.

Ensure both internal alignment within the innovation team, and external alignment with partners.

- Ensure internal alignment within the team and build the organization's capacity for growth to sustain impact in the long term.
- Build capacity for the current stage of growth, while putting the right team and skills in place to handle future expansion.
- Be strategic when selecting funders and other partners to ensure alignment in mission, vision, values, and goals.

Understand the local context

- If possible, spend extended time in the target market location to acquire a deep understanding of the target market, build relationships with stakeholders to better understand individual user needs, and develop a product or service that is likely to be adopted and used.
- Consider the supply and distribution infrastructure before entering a market, and determine whether that infrastructure will facilitate reliable delivery of products and services.

² A business strategy that targets two markets or market types; in this context, both high- and low-income markets (USAID Center for Innovation and Impact, n.d.).

- Encourage use of the innovation and foster a sense of local ownership by offering capacity-building services to users, customers, and partners, thereby increasing impact sustainability.

Plan ahead for sustainability

- Think a few steps ahead. Determine the next stage and how to get to there, as well as what is needed to support maintenance and growth later on.
- Early stage innovators should conduct research to understand the market and the needs of the user and customer in context as they are developing their products and long-term business plans.
- Identify a customer or customers and define a value proposition early on. The sooner innovators can articulate the value proposition, the sooner they can start building a customer base and generating revenue.

For Funders:

- When selecting innovations to fund, consider how their potential for sustainability will affect their long-term impact. An innovation with greater sustainability potential may be a better choice than an innovation with greater short-term impact, but less sustainability potential.
- Consider impact sustainability in addition to long-term financial sustainability when selecting innovations to fund.
- When entertaining proposals, require indicators that demonstrate how innovators work within the health system and the innovations' health impact over time.

Conclusion

As innovator organizations scale, they should work towards both the sustainability of their organizations' operations and sustainability of health impact. We highlight three innovators who have made significant progress towards both operational and impact sustainability before and during the A-SL@B period. Various strategies were employed to help innovators in the early stages of development build towards eventual sustainability.

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