



# We Asked the Experts: Innovative Venture Investing as a Model for Strengthening Global Surgery

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## Introduction

Leaders of many nations have acknowledged a need to improve global surgical health systems. It is now time to transition from strategic planning to implementation. Inadequate financing is a significant constraint to implementation of technology and new models of care that focus on delivery of surgical and anesthesia care in low- and middle- income countries (LMICs). Innovative financing models are necessary to support efforts intended to close the gap on the lack of provision of surgical services globally. Special attention must be aimed at addressing key pain points in global surgical care delivery, such as operational inefficiencies in care and management.

## Innovative financing models: potential opportunity for ventures

Financial institutions can support ventures specifically operating in LMICs by adjusting their metrics from purely financial to a blended model that incorporates impact. Potential models include social financing or impact investing, in which investments are made with the intention of having direct measurable social or environmental impact. Many financial institutions are now looking to get involved at the intersection of health and philanthropy. They are leveraging their position to bring more private capital into development while ensuring that wealth is leading to positive impact.

Thus far, these models have proven to have a strong track record [1]. In 2020 alone, the Global Impact Investing Network (GIIN) annual survey, which provides an overview of the impact investing market, estimated a market size of \$710 billion [1]. We believe there is an opportunity here for potential use of this model to strengthen health systems and key stakeholders must leverage this potential by engaging investors in global surgical efforts.

There is widespread awareness that government sovereign funds for mission-driven programs are available to non-profit organizations through grant applications. Many would not know, however, that there are also funders looking to sponsor for-profit entities operating in LMICs to help achieve the United Nations (UN) Sustainable Development Goals (SDGs). Groups overseeing current development impact funds are having difficulty deploying these resources because most companies operating in this space are not actively seeking these funds.

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There are many ventures in LMICs who have the potential to develop technologies and services that, if slightly modified, could be utilized in optimizing surgical care delivery. Therefore, we believe that equally important to financing ventures is the creation of a vibrant, robust innovation ecosystem. One that is focused on safe surgical care delivery and enables the kind of coordination and communication among local stakeholders needed for success.

As such, local stakeholders and ventures can come together and engage current institutions and governments that have certain mandates around investing specifically in LMICs. For example, development finance institutions (DFIs) are specialized development banks or subsidiaries designed to support private sector institutions in the developing world. DFIs are typically majority owned by national governments and derive their capital from sources such as international development funds, which enables them provide financing of large magnitudes.

It is important, however, to acknowledge many health systems are state controlled. This leaves room for inefficient governance to impact the quantity and timeliness of funding for intended targets. These complexities underscore a need for models that allows players to seek other avenues of funding. In addition to DFIs, there are institutions looking to engage directly with local actors, such as venture studios, incubators, and entrepreneurs. Many large firms have philanthropic arms built to provide resources to manage clients' philanthropic giving [1]. We believe one way to catalyze a local ecosystem of innovation is by raising awareness about available funding alongside the financing models used to secure that funding.

### **Funding should prioritize efforts that increase health system efficiency and coordination**

Effective global surgical care delivery is heavily dependent on operational efficiency, communication, and coordination. There is a consistent deficit in this area in many LMIC settings, where the leading causes of preventable same day surgical cancellations include poor logistics, complicated supply chains, and poor coordination [2]. Umutesi et al. discuss a delay of care pathway that includes delays in “seeking care”, “reaching care”, and “receiving quality care” once at a healthcare facility. These same day surgical cancellations ultimately lead to delays in care, falling under the third category of this pathway [3].

We believe that financing health technology that addresses operational shortages or components of the delay of care pathway is a high impact approach to optimizing human resources and health system efficiency. Many countries continue to have a shortage of health workers.

The Global Burden of Disease Study (2017) estimated only half of countries have the health workforce needed for the delivery of quality care needed to reach Universal Health Coverage (UHC) [4]. While the long-term goal of increasing the surgical workforce is critical, a parallel emphasis on addressing inefficiencies in the existing surgical delivery system can allow hospitals to function more optimally while other domains are strengthened [2].

Considering the financing models discussed are outcome-dependent, we must ask, how do we quantify impact? One option is to begin with the outcome indicators laid out in the Lancet Commission, such as total operative volume or impoverishing and catastrophic cost burden [5]. While these metrics would be ideal to achieve and should be strived for, as a first step we propose a metric that is more practical and simpler to implement: “Delay of care”. Furthermore, it moves away from the current standard metrics which oftentimes financially incentivize actions counter-productive to effective and efficient delivery of care. These metrics can serve as benchmarks for organizations and governments to measure and demonstrate impact to investors. We further propose health technology as an excellent avenue to measure outcomes.

In the current landscape, however, most large health software companies are based in the United States and Europe, while much of the developing world lags behind. Although many companies may have a market outside of these regions, there is lack of funding, and are not designed to be incrementally incorporated into health systems [5]. Rather, we need to finance local ventures developing solutions and invest capital in new and promising health technology geared towards the LMIC context.

### **Conclusion**

Now is the time to transition our focus from strategic planning to implementation in order to strengthen global surgical care delivery. Considering that success in global surgery is heavily dependent on health system efficiency, this is a golden opportunity to engage investors looking to tap into entrepreneurship in LMICs. Impact and social investing are innovative financing models that can be used to fund technology that supports the provision of safe and quality surgical care in these settings.

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**Declarations**

**Conflict of interest** The authors declare that they have no conflict of interest.

**Ethical approval** The authors have complied with all ethical requirements of the WJS.

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