

Being the Change: A Case Study of Five Social Entrepreneurs Improving Healthcare Equity

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ABSTRACT

Healthcare in the United States and low-income countries faces numerous challenges and inequities, leading to unjust suffering. Many of these issues can be combated by social entrepreneurship, an emerging field in which an individual or group utilizes sustainable business principles and innovative solutions to benefit a group or segment of society. Examining specific social entrepreneurs and their enterprises in healthcare can elucidate the business model and personal attributes that lead to success. A total of five social enterprises were selected for evaluation: Partners for World Health, We Care Solar, PurPLE Health Foundation, OneWorld Health, and Civica Rx. The founder or co-founder (a representative in the case of Civica Rx) of the enterprise was interviewed, and additional data were collected through various public and internal sources. This data were analyzed, and four major themes were identified: an inflection experience wherein an opportunity is discovered; a challenging deviation from convention was made; a resourceful, creative, and innovative solution is developed; and impact by the enterprise is maximized by educating the local and global community and advocating for permanent policy change. Further in-depth and comparative case studies are needed to highlight the influential impact a single social entrepreneur can have on a major issue and develop a model for prospective social entrepreneurs.

Introduction

Health Inequities

Health inequities are differences in the health of populations attributed to an injustice, which is often caused by underlying social, political, or economic conditions and institutions (Krieger 2001). Health inequities exist in all countries but exist due to differing reasons. In low-income countries, many people do not have access to clean water, food, sanitation and shelter, increasing risks of exposure to various pathogens. The public healthcare institutions in these countries are often ill-equipped to handle the burden of the population, perpetuating the cycle of poor hygiene and proliferation of disease (Orach, 2009). Even wealthy countries, like the United States also grapples with healthcare inequity as well due to factors like income inequity (Subramanian & Kawachi, 2004), structural racism and bias (Feagin, 2014; Fitzgerald & Hurst, 2017), and lack of insurance coverage (Berchick et al., 2018).

Health inequities lead to unnecessary and unjust suffering, disease, and death. Existing healthcare systems either are unable to address these inequities or inadvertently contribute to them.

Social Entrepreneurship

Social entrepreneurship has emerged to address healthcare inequities. Broadly defined, social entrepreneurship is a variation of entrepreneurship focused on the use of sustainable business strategies to address a social mission. All entrepreneurs have three common elements: identifying an opportunity, creating an innovation, and relentlessly realizing their innovation to create value. However, social entrepreneurs and conventional entrepreneurs differ with each other in a critical way: their value proposition. Conventional entrepreneurs, with their innovation, focus on capturing market share with the anticipation of sustained financial profit for themselves and their investors. However, social entrepreneurs, with their innovation, focus instead on a transformative benefit to an underserved population or solving a problem within a segment of society (Martin & Osberg, 2007). However, that is not to say there isn't significant overlap. Conventional entrepreneurs will have difficulty succeeding without developing a solution that benefits a population or solves a problem. Without financial profit, social entrepreneurs are not able to reinvest and sustain their impact. The major difference is simply the entrepreneur's prior expectation of the entities for whom their venture will create value.

Examining Social Entrepreneurship in Healthcare

Healthcare has emerged as a major field for social entrepreneurs, as there are clear opportunities for innovation in a system with such major inequities. Innovative social enterprises, in the form of for-profit and non-profit models alike, help address these issues by introducing novel solutions that fill the gap left by conventional healthcare systems. They also often collaborate with said healthcare systems or governing bodies. These enterprises can address issues in both the United States and low-income countries, leading to long-lasting impacts. Case studies of these social enterprises can lead to a deeper understanding of their success and can help serve as a model for prospective social entrepreneurs. This paper will be focused on enterprises addressing the health inequities in low-income communities of Africa, South and Southeast Asia, Central and South America, and the United States.

Methods

Population

Eligible enterprises met three criteria. Because the focus on this research is both on the enterprise and the individual, a sole architect was critical in achieving results. The following are inclusion criteria for the social entrepreneur and their enterprise:

- Founded and established by one or two entrepreneurs
- Created a solution to solve an issue in healthcare or medicine
- Demonstrated impact with their respective mission

Interview Questions

In-depth interviews were conducted June-August 2023. The following questions were designed to obtain data that wasn't readily available on the enterprise's website or other online sources. The interview questions were split into six general sections/prompts. They are as follows:

1. Personal Background: What was the social entrepreneur’s personal background before starting their venture? What experience did they have in medicine and healthcare? What about business administration?
2. Discovery of Problem: How did these social entrepreneurs find the issue they are trying to resolve?
3. Innovation and Solutions: What was the solution the social entrepreneur created? How was it novel compared to existing solutions/systems?
4. Foundation of Enterprise and Challenges: How did the enterprise get started? What were the major obstacles in starting operations?
5. Impact: What were the impacts of the solution? How is impact quantified and measured?
6. Sustainability for the Future: How is the enterprise run today to ensure that impact can be continued? How does the enterprise stay funded?

Notes were taken on the interview, along with notable quotations.

Additional Data

Additional data were collected from the enterprises’ websites, yearly and quarterly reports, and press releases. All enterprises interviewed were also able to provide internal documents and updated newsletters to further guide research.

Data Analysis

Following the completion of data collection, notes were thoroughly reviewed to identify similar characteristics of successful enterprises and individual social entrepreneurs. Common themes were identified. These “Themes” were then supplemented with specific examples from each enterprise.

Results

Of seven enterprises reached, five agreed to a 45-minute interview over Zoom or phone. The five social enterprises that were ultimately selected are: Partners for World Health, We Care Solar, PurpLE Health Foundation, OneWorld Health, and Civica Rx. All are led by a social entrepreneur, and all are based in the U.S., and all but one work in low-income countries (Table 1).

Table 1. Overview of five social enterprises examined.

| Name of Enterprise; Year Founded; Location | Name of Social Entrepreneur | Countries of Operations | Issue Addressed | Solution Developed | Key Outputs |
|--|-----------------------------------|--|---|--|---|
| Partners for World Health; 2009; Portland, ME, USA | Elizabeth McClellan, RN, MSN, MPH | Africa: 8 countries Asia: Bangladesh and Cambodia Central America: | Hospital systems in the United States frequently dispose of viable medical supplies and equipment | Collect, repack, and redistribute medical supplies and equipment to reduce waste and provide supplies to | 17 containers of medical supplies (~\$250,000 value in each) 4 air shipments, total of |

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|--|----------------------------------|--|--|--|---|
| | | Perú and Colombia Europe: Ukraine (Russo-Ukrainian War), and Turkey (Syrian asylum-seekers) | while other countries lack such supplies. | healthcare facilities in need. | 500,000 pounds of supplies and equipment (2022). |
| We Care Solar; 2010; Berkeley, CA, USA | Laura Stachel, MD, MPH, DrPH | Africa: 23 countries Asia: 14 countries Central America and Caribbean: 4 countries North America: 2 countries Oceania: 2 countries | Lack of access to reliable lighting and electricity endangers maternal and infant safety during childbirth. | The Solar Suitcase, an integrated solar electric device with charge controller, 12V batteries, LED lights, medical devices, and outlets for external power. Powered by solar panels installed at the facility. | 8,350 solar suitcases distributed, 35,000 healthcare workers trained in operating system, estimated 13 million mothers and infants impacted with 276 million hours of medical light (2023). |
| PurpLE Health Foundation; 2019; New York City, NY, USA | Anita Ravi, MD, MPH, MSHP, FAAFP | New York, USA | Survivors of gender-based violence (GBV) often lack access to regular and long-term primary care. Furthermore, many physicians may not be well-trained to treat such patients. | Interconnected model of clinical care, research, training, and advocacy to optimize healthcare for GBV survivors. PurpLE Health's affiliated clinic offers free, long-term trauma-informed primary care, mental health and care navigation service to GBV survivors. | Provided 1,500+ hours of free healthcare for GBV survivors. Trained 10,000+ healthcare providers in topics such as trauma-informed care and human trafficking. Published 10+ articles on healthcare for GBV survivors (2023). |

| | | | | | |
|--|---|-----------------------------|---|---|--|
| OneWorld Health; 2011; Charleston, SC, USA | Matt Alexander, MBA | Nicaragua, Honduras, Uganda | Individuals in low-income countries are often caught between unaffordable private healthcare and lackluster public healthcare. Humanitarian efforts in healthcare are often temporary and unsustainable. | Developed a business model for sustainable and affordable medical clinics for the masses. Breaks even within 24 months to provide a population with basic healthcare permanently. | 17 healthcare facilities with 273 staff, providing healthcare to 131,693 patients (2022). |
| Civica Rx; 2018; Lehi, UT, USA | Dan Lijenquist MBA* and Martin Van-Trieste* *Represented by publicist Debbi Ford | United States of America | Pharmaceutical products are unaffordable. Supply chain and manufacturing issues lead to shortages. Generic alternatives can sacrifice quality, effectiveness, and safety due to competition for the lowest price. | Created an enterprise to partner hospital systems with generic pharmaceutical product manufactures to establish long-term contracts for production and sustainable pricing. | Provides 80 drug products with 55 hospital system members representing 1/3 of all hospital beds in the United States. 140 million units of Civica medications to treat 60 million patients (2023). |

These enterprises vary greatly in their mission, areas of operations, and models, but share key characteristics that help explain their success. An analysis of these shared characteristics was conducted, and results are as follows.

Inflection Point: A Specific Experience Inspires the Entrepreneur

The discovery of a problem the entrepreneur seeks to address is a critical first step. All the entrepreneurs in this case study had previous immersion working in the healthcare space, but experienced some sort of transformative experience, allowing them to see firsthand the challenge they would go on to address.

Dr. Laura Stachel of We Care Solar exemplifies this. In 2008 and while working on her DrPH at UC Berkeley's School of Public Health, Dr. Stachel traveled with anthropologist Daniel Perlman to visit Kofan Gayan State Hospital in Nigeria. Dr. Stachel was struck by the deficient conditions of the maternity ward, but especially the lack of reliable lighting or continuous electricity.



Figure 1. A maternity ward in Nigeria with a nurse working in near darkness. Such are the conditions that inspired Dr. Stachel. Lack of electricity reduces visibility, limits communication, and prevents use of powered medical equipment, all factors that endanger both mother and child during childbirth. (credit: Laura Stachel)

A particular case stood out. A woman in labor was brought to the door of the maternity ward at night. She was bleeding heavily; her only chance for survival depended on immediate surgery and a blood transfusion. The hospital's lack of electricity meant that the operating room was without lights and the laboratory couldn't sustain a blood bank. The attending midwife had to send the woman and her family away.

"At that moment, I thought about all the women like her, suffering in silence, and fighting for survival in health centers lacking even the most basic requirement for healthcare: light. I wondered how I might make a difference in their fate." (Stachel). With her husband Hal Aronson, Dr. Stachel developed a solar-powered integrated device, the Solar Suitcase, to provide light and essential electricity to maternity wards and operating theaters.

OneWorld Health was also inspired by a single experience. Matt Alexander visited Liberia in 2003 after the civil war's ceasefire. "I noticed a tremendous amount of funding and resources that were flowing into the country, but little was actually used to benefit the individuals who they were designed to help, especially in healthcare". Alexander realized that sustainable and affordable medical clinics staffed by local healthcare professionals in the area will be most effective in providing long-term quality care. After discussing this idea with a local physician named Dr. Ed O'Bryan in his hometown of Charleston, SC, they both conducted research and planned another trip in Uganda. The initial experience in Liberia led to Alexander co-founding and establishing OneWorld Health.

In the interviews, all entrepreneurs pointed to an inciting experience that inspired the later establishment of their enterprise. While all experiences illustrated barriers to the delivery of quality healthcare, the entrepreneurs maintained an optimistic mindset and identified an opportunity for improvement.

Deviation from Convention: The Entrepreneur Takes a Risk and Faces Challenges to Pursue their Idea

When establishing an enterprise, significant time and dedication are required. That often comes at the sacrifice of their conventional career or prior plans. Most of the entrepreneurs interviewed expressed that they were unexperienced with running an enterprise when starting and learned how to run an enterprise while establishing it.

Dr. Anita Ravi is an excellent example of deviating from convention and overcoming the challenges she faced when starting her own field of practice. As Dr. Anita Ravi started her residency in family medicine, she set up an elective rotation in Rikers Island Jail and additionally volunteered within the system. Through this

work, Dr. Ravi recognized that survivors of gender-based violence—including those who experience domestic abuse, human trafficking, and sexual violence—are often unable to access and/or are untrusting of healthcare systems. Dr. Ravi expressed how many survivors do not seek out help because “there is so much stigma around gender-based violence, so patients may feel less able to express their stories.” To solve this problem, Dr. Ravi founded and piloted the PurpLE (Purpose: Listen and Engage) Clinic from 2015 to 2019 within a community health center. This pioneering program faced many challenges, as gathering patients who distrusted the healthcare system was difficult. The lack of patient volume led to existential moments, but through continued work and outreach, they soon had over 700 referrals for primary care, confirming the need for these services.

In 2019, Dr. Ravi took the lessons learned from the pilot and take a leap of faith in building a better healthcare delivery system for survivors. She gathered a team of women, including fellow physicians, a social worker, and survivor leader, with whom she had worked during her time at PurpLE Clinic and, together, they founded PurpLE Health Foundation. With the foundation, Dr. Ravi and her team provide direct medical, mental health, and care navigation services to survivors at their affiliated healthcare practice, while analyzing and improving their model and sharing learnings through training and publications.

The success story of PurpLE Health Foundation serves as an example of the vast challenges that must be overcome to implement a novel idea and tackle a major issue in healthcare. For most of the enterprises studied, We Care Solar, OneWorld Health, Partners for World Health, and PurpLE Health Foundation, funding and establishing sustainability was mentioned. Furthermore, all five companies talked about the challenges of realizing their new idea.

Innovation, Creativity, and Resourcefulness: The Entrepreneur develops a Better Solution with Limited Resources

A chief feature of all successful ventures is using limited resources to create a novel and effective solution. This solution must improve existing systems and address some sort of niche. In general, the more specific the problem the solution addresses are, the more successful it will be.

Elizabeth McLellan created one such solution. Following a visit to a trauma center in Quetta, Pakistan, McLellan observed the lack of clean medical supplies for healthcare providers. This serves as her “Inflection Point” (discussed previously in Results). In 2007, McLellan worked at the Maine Medical Center and noticed that the center disposed of viable and clean medical supplies. McLellan decided to start taking those supplies home, and by 2009, her house was full of over 11,000 pounds of supplies. McLellan has scaled the concept since then. Her enterprise, Partners for World Health, now operates 6 warehouses in the New England Area containing countless pounds of various medical supplies and equipment which are then organized, packed, and shipped to various locations as part of their Container Program.



Figure 2. Elizabeth McLellan standing around boxes of medical supplies in one of her warehouses. (credit: Gregory Rec)

In addition to resourcefulness, creativity has also proved important in the success of Partners for World Health. McLellan came up with the idea to highlight the unnecessary waste of medical supplies by hosting a fashion show that featured pieces made from blue wrap, a polypropylene material commonly used in medical attire. The Blue Wrap Runway Show acts as a fundraiser, an exhibit of her enterprise, and a way for local artists in New England to showcase their work. The series of shows were a massive success, raising over \$300,000 in 2022.

Both the development of McLellan's solution and the other activities of the enterprise demonstrate the importance of creativity and innovation in the face of limited resources.

From Dr. Stachel's early prototypes of the Solar Suitcase to the initial meetings mediated by Civica Rx between hospitals and generic pharmaceutical manufacturers, each enterprise had to creatively utilize what limited resources they had at their disposal to develop and scale.

Education and Advocacy: Entrepreneurs Seek to Maximize Impact and Sustainability

After successful establishment and a proven track record, of the enterprises included in this study invested deeply into advocacy and education. By changing policy, they can maximize their impact and raise awareness, and by informing their community they can likewise raise awareness as well as maintain

In creating these enterprises, social entrepreneurs gain a deep understanding of the subject matter. Thus, they are especially well-positioned to advocate and educate. For example, Martin VanTrieste of Civica Rx already had extensive experience in the pharmaceutical industry working which was expanded as he became the first President and CEO of Civica. With his well-informed perspective, he delivered a Congressional testimony in 2020 on the drug supply in the United States. Van Trieste covered topics from establishing a robust supply chain to the adverse effects of generic drug companies racing to the lowest prices for their products (Van Trieste, 2020).

Civica Rx continues to consult legislators as they develop policies to prevent drug shortages. Furthermore, in March 2022, Civica's announcement and efforts to manufacture and distribute an insulin biosimilar by 2024 has helped contributed to Eli Lilly, Novo Nordisk, and Sanofi slashing the prices of their insulin by 70%, 75%, and 65%, respectively (Kansteiner, 2023).

Civica's massive disruption within the pharmaceutical industry shows how advocacy efforts by a social enterprise within a specific field can lead to massive, beneficial, and permanent changes.



Figure 3. CEO and President Martin VanTrieste speaks during the official opening of the company's headquarters in Utah in 2019. (credit: Civica Rx)

We Care Solar has maximized its impact through advocacy work and education efforts as well. Light Every Birth is an initiative launched in 2017 in partnership with various health ministries, UN agencies, and NGOs to provide clean solar electricity for safe deliveries to every eligible health facility as well as train countless providers to install solar panels and operate the devices. There are currently six countries in the Light Every Birth program: Liberia, Malawi, Nigeria, Sierra Leone, Uganda, and Zimbabwe.

From community fundraisers hosted by OneWorld Health, the annual Global Health Forum hosted by Partners for World Health, trauma-informed care training by PurPLE Health, or the efforts of Civica and We Care Solar, these social enterprises have achieved the ultimate level of success: achieving permanent change to address the issues that was identified and educating others on a national and international scale.

Discussion

In every enterprise interviewed, the four identified themes were evident: an inflection experience that helped the entrepreneur identify an opportunity for improvement, the entrepreneur's deviation from convention, the entrepreneur's development and scaling of a resourceful and innovative solution, and finally maximizing impact by educating the community and advocating for permanent change. The personal attributes of these individuals are also very clear: these individuals had extensive experience in the healthcare and nonprofit space but took a significant risk to pursue their own idea. Furthermore, all individuals were driven, adaptive, and creative.

In existing literature, very little was found in regards of comparative case studies of social enterprises in healthcare. Many sources have examined the model of social entrepreneurship in general (Martin & Osberg, 2007; Peredo & McLean, 2005). There also exist meta-analyses of vast numbers of social enterprises (Cukier et al., 2011), but these have not examined several social enterprises in depth. Some specific case studies were created by enterprises that promote social entrepreneurship such as Ashoka Foundation (*Fellows / Ashoka Foundation*, n.d.), Skoll Foundation (*Skoll Foundation-Health & Pandemics*, n.d.), and Echoing Green (*Echoing Green News*, n.d.). The general lack of comparative case studies can be attributed to the fact that social enterprise is an emerging field with limited research.

This research is significant because it has identified themes through an in-depth review of social enterprises and the factors that led to their success. This method was used specifically within the healthcare space, but the method can be applied to a different field of study. Furthermore, the findings from research like this can be used as a model or inspiration for prospective social entrepreneurs.

Conclusion

Social entrepreneurship is an emerging field, designed to use the principles of entrepreneurship to address a societal issue. Healthcare especially has emerged as a popular field for social entrepreneurs due to its various inequities and challenges. Five social entrepreneurs were interviewed, and in-depth data collection about their respective enterprises was obtained through their websites, newsletters, reports, news articles, and other sources. This data was analyzed, and major themes were found and discussed. Finally, a brief overview of current existing literature of the topic was created.

In general, strong themes were found. However, further research is needed to delve deeply into case studies of successful social enterprise to improve a model for success. Social entrepreneurship is a relatively novel field and has demonstrated its potent ability for a driven individual to make massive and permanent

impacts on society's largest challenges. More study into social enterprises in healthcare and other fields should be frequently featured and published to encourage the next generation of prospective entrepreneurs.

Limitations

This paper has both strengths and limitations. The strengths are that the enterprises selected are very diverse in the fields of healthcare they inhabit, which means that the themes identified are likely common to many social enterprises within the broad field of healthcare. Furthermore, the study into each enterprise was in-depth and opened a rare inside perspective because of the interview and data collection methodology.

However, there are limitations. Firstly, only five social enterprises were studied, meaning that the conclusions derived from these studies cannot be broadly applied to all social enterprises in healthcare. The difficulty of scheduling meeting times with these social entrepreneurs caused interviews to last various amounts of time.

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References

- Berchick, E., Hood, E., & Barnett, J. (2018). *Health Insurance Coverage in the United States: 2017 Current Population Reports*.
<https://www.census.gov/content/dam/Census/library/publications/2018/demo/p60-264.pdf>
- Civica Rx. (2019). President and CEO Martin Van Trieste Speaks at Civica headquarters' grand opening. In <https://civicarx.org/civica-rx-opens-new-headquarters/>.
- Civica Rx. (2020, June 2). *Civica CEO's Congressional Testimony on Generic Drug Supply*. Civica Rx.
<https://civicarx.org/civica-ceos-congressional-testimony-on-generic-drug-supply/>
- Cukier, W., Trenholm, S., Carl, D., & Gekas, G. (2011). *Social Entrepreneurship: A Content Analysis*.
<http://www.na-businesspress.com/JSIS/CukierWeb.pdf>
- Feagin, J., & Bennefield, Z. (2014). Systemic racism and U.S. health care. *Social Science & Medicine*, 103(103), 7–14. <https://doi.org/10.1016/j.socscimed.2013.09.006>
- Fellows | Ashoka USA. (n.d.). Ashoka-Usa.org. Retrieved August 18, 2023, from <https://ashoka-usa.org/fellows>
- FitzGerald, C., & Hurst, S. (2017). Implicit bias in healthcare professionals: a systematic review. *BMC Medical Ethics*, 18(1). <https://doi.org/10.1186/s12910-017-0179-8>
- Kansteiner, F. (2023, April 20). What spurred Lilly, Novo and Sanofi to slash insulin prices? Expert gives her take. *Fierce Pharma*.
- Krieger, N. (2001). *Glossary A glossary for social epidemiology* N Krieger.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1731785/pdf/v055p00693.pdf>
- Martin, R., & Osberg, S. (2007). *Social Entrepreneurship: The Case for Definition*.
<http://ngobiz.org/picture/File/Social%20Enterpeuneur-The%20Case%20of%20Definition.pdf>
- News. (n.d.). Echoing Green. Retrieved August 18, 2023, from <https://echoinggreen.org/news/>

- Orach, C. G. (2009). Health equity: challenges in low income countries. *African Health Sciences*, 9(2), S49-51. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2877288/>
- Peredo, A. M., & McLean, M. (2006). Social entrepreneurship: A critical review of the concept. *Journal of World Business*, 41(1), 56–65. <https://doi.org/10.1016/j.jwb.2005.10.007>
- Rec, G. (2021). Partners for World Health President and founder Elizabeth McLellan stands on boxes of medical supplies in the enterprise’s Walch Street warehouse in Portland. In *Portland Press Herald. Skoll | Health & Pandemics*. (n.d.). Skoll Foundation. Retrieved August 18, 2023, from <https://skoll.org/health-pandemics/>
- Stachel, L. E. (2020). Where There is No Light: A Mixed-Methods Exploration of Quality of Obstetric Care and Energy Access in Low and Middle Income Countries and the Impacts of a “Solar Suitcase” Intervention. UC Berkeley. ProQuest ID: Stachel_berkeley_0028E_19858. Merritt ID: [ark:/13030/m5z953zv](https://escholarship.org/uc/item/99w5w7mr). Retrieved from <https://escholarship.org/uc/item/99w5w7mr>
- Subramanian, S. V. (2004). Income Inequality and Health: What Have We Learned So Far? *Epidemiologic Reviews*, 26(1), 78–91. <https://doi.org/10.1093/epirev/mxh003>