EVALUATION TOOLKIT: TOOL #5

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Considerations in Leveraging Data for Expansion

A TOOL FOR SOCIAL ENTERPRISES IN HEALTH



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I. INTRODUCTION

The story

You have quickly and successfully expanded into two new provinces with the launch of 10 new clinics. In the first year, the clinics are bringing in enough patients to be financially self-sustaining. More women are delivering in the new clinics than projected and you are able to screen for gestational diabetes and preeclampsia with nearly every pregnant woman entering your door. Your health management systems are strong with minimal drug stock-outs and your health providers are receiving quarterly clinical training updates. From maternal and child health (MCH) to non-communicable disease (NCD) care, health service utilization is high at your clinics and staff feel that health outcomes are good for their client population. This is all one year since expansion.

A new investor/donor is interested in funding additional expansion into another province. But first, she would like more evidence of your impact on the community. Before your new clinics were opened, what were the community-level immunization rates, how frequent were stock-outs at comparable health facilities, how often do pregnant women usually get screened for gestational diabetes and preeclampsia in these provinces, and what impact are you having on MCH or NCD health outcomes?

The quandary

You are already one year into your expansion. You cannot go back in time to collect some of these data. You can provide anecdotal stories to your stakeholder, or try asking patients/ customers retrospective questions, but you do not have any hard evidence on how you have improved access to healthcare services in these provinces. What are your options? (M&E) of performance is an important operational component for any social enterprise, not a separate activity. Dedicated staff should understand organization data, data analysis, and when/if ethical approvals may be needed for activities deemed research.

Monitoring and evaluation

The solution

Determine whether you can leverage existing publically available datasets to obtain relevant contextual data. Better yet, before you expand any further, recognize that the point of expansion is rare and critical. This point in time is one of the most important times to gather baseline data (i.e., information

you can use later on as a comparison against your future performance). This is the time to pause and plan. What data will you need in the immediate and near future? What type of baseline data do you need, if any? Consider if you should collect data yourself, or if you can utilize existing data resources.

Main takeaways

1

Leveraging existing data may serve your purposes.



Collecting your own data, particularly prior to expansion, gives you the most control and access to relevant data.

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Pitfalls of Relying on Retrospective Data

Why not just ask patients or health facilities what their practices were prior to your expansion?

Did patients have access to particular services before your organization arrived? What practices did your partner facilities use prior to using your product/technology? Retrospective questions can be useful in some cases, providing important contextual information. However, retrospective questions asked of patients and providers are not ideal for past/present comparison purposes. Why not?

Unreliable responses

- o Limited memory/recall
- o Personal biases/desire

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Incomplete picture o Additional people/facilities beyond your reach Potentially incomparable data o Retrospective questions are not equivalent to other current data collection methods (e.g., survey vs. observation)

II. SELF-COLLECTED VS EXISTING DATA

TABLE 1

Factors in planning expansion What are your data needs? What is the feasibility of obtaining the data?		
When to Utilize Existing Data	When to Self-Collect Primary Data	
What is your timeline? Is it flexible?		
Your expansion timeline must move forward immediately. There is no flexibility in the timing.	You have the resources and the time to collect data prior to expansion. You also have the ability to explain to and persuade stakeholders of the necessity of collecting data at this point in time.	
What are your funders' expectations for showing impact and evidence?		
You have multiple options for scaling-up your organization, including private investors, foundation grants, & smaller grants from global donors such as USAID. Not all of these funders will necessarily require rigorous impact evidence. However, this may be changing as investors look more deeply into impact.	Your primary strategy for organizational scale-up is to obtain significant funding from traditional donor agencies such as USAID, Gates, or DFID AND this funding is needed within the next 12 months. The level of rigorous evidence for these donors is typically high with a preference for causal impact data.	
How are you currently engaging with data for evidence of impact?		
You have not yet explored what data are publicly available, or what data you may gain access to by requesting it (e.g., private facility data).	You already use the data you have access to: facility-level, anecdotal, basic M&E, and national surveys.	

See TABLE 2: Sample Impact Statements (p. 5) for examples of how impact statements vary based on the level of evidence.

TABLE 2

Sample Impact Statements based on Data Source

Basic organizational M&E	Leveraging Existing Data Sources	Self-Collected Data
We reached 5,000 pediatric patients in 2016.	Yellow fever vaccination rates among children in Nyanza province, Kenya ages 12-23 months were 85% in 2011. Our health management information system (HMIS) partnered with 18 new health facilities in Nyanza province in 2014 with a focus on follow-up for timely vaccinations. In 2016, the vaccination coverage rate among the same group was 92% province-wide. Most other provinces saw only a 1-2% increase in vaccinations rates during that same time period. (DHS)	In 2014, prior to our HMIS partnerships with 18 facilities in Nyanza province, baseline data revealed that on average only 75% of infants who regularly received wellness visits at the facilities were fully immunized by age 12 months. In 2016, two years after launching our HMIS partnerships, the 18 facilities reported on average that 92% of infants who were delivered at these facilities were fully immunized by age 12 months. <i>(Record review</i> <i>of patient-level data)</i>
Since 2014, we have touched over 15,000 lives through our product sales.	Proxies for pre-discharge maternal morbidity (admission to ICU, blood transfusions, hysterectomy, and transfer to referral hospital) decreased by 20% since our products were routinely utilized at our partner health facilities. (Aggregate facility-level trend data).	Maternal infection rates up to 28 days postpartum decreased by 30% among clients with documented use of our products at our partner hospitals between 2014 and 2016. <i>(Longitudinal patient follow-up data)</i> .
95% of our clients pay less than \$5 in out- of-pocket costs for an outpatient visit.	20 of our 30 health facilities in Kenya are operating in counties where the majority of the population falls within the bottom two wealth quintiles compared to national wealth data. <i>(DHS)</i>	79% of our clients in our urban clinic locations are in the bottom two wealth quintiles for Kenya indicating that we are reaching underserved, low-income populations via the private sector. (Equity Tool used in client exit interviews)

III. CONSIDERATIONS

Pros

Cons

TIPS FOR LEVERAGING EXISTING DATA

TABLE 3: LEVERAGING EXISTING DATA SOURCES

- Wide range of free, high-quality datasets.
- Can help identify strategic areas for geographic growth--e.g., high rates of morbidity or mortality, unmet need for access to quality services, and an environment capable of sustaining your organization/business model.
- Can be used to define a baseline for future comparisons.
- Low-cost: in most cases, only requires staff time to access, synthesize and interpret.
- Timing: may be useful with fast expansion timelines when self-collecting data prior to expansion is not possible.
- Data are likely not a perfect fit (e.g., geographic area, target population) and will not show efficacy unless enterprise has a large market share of data's geography.
- Time and energy is required to sort through large amount of data to determine what specific details are useful.
- May require personnel with background and familiarity with research, evaluation and/or statistical software.
- Quality of datasets varies, requiring due diligence.

Tips for Gathering Existing Data: Assess your sources for an appropriate fit

Credibility	Is the source credible? Are the data accurate? o If not, is it still useable or useful? Can you partner with health facilities, organizations, or government agencies in ways that will improve the data collection process or data quality?
Age of Data	 Are the data relevant to you? If not, what would need to change to make the data relevant? o Frequency: How frequently are the data updated (e.g., Annually, bi-annually, every 5 or 10 years)? How does this frequency fit within your needs? o Timing of Data Reporting vs. Data Collection: Data may be reported a year or more after being collected. Make note of when the data were collected so you can make stronger, accurate statements.
Who	Who is included/excluded in the data? Do the populations match your target group?
Level of detail	 What level of detail do you have access to, through reports, or by accessing and analyzing the dataset? o <i>Geographic</i>: What options do you have for geographic boundaries (e.g., national, provincial, district, ward)? o <i>Demographics</i>: Do you have options to see the data by various demographics (e.g., sex, age, education, income, religion, health condition)?
Data access	 Do you have access to the entire dataset, a partial dataset, or perhaps only a written report? Manipulating data generally requires a staff member, consultant, or intern familiar with statistical software (e.g., SPSS, R, Stata, or SAS) and able to run basic tabulations (e.g., cross-tabs).

LEVERAGING HEALTH FACILITY DATA

If you partner with or provide products or technologies to health facilities, consider in advance what type of facility-level data may be helpful to you in understanding your impact.

These data may include:

- Use
 - Number of clients served
 - Number of products/devices in use and/or percent coverage (e.g., % of deliveries using product)
 Average number of uses/product life
- Quality of Care Improvements
 - Meeting or exceeding MOH clinical practice guidelines
- Health Outcomes
 - Before/after use of your innovation, e.g., morbidity or mortality rates
- Cost-Savings
 - Facilities' return on investment
 - Facility revenue changes

Depending on your innovation, these data may be critical to obtain prior to and after expansion. Private health facility-level data are generally not publicly available, though **existing data from facilities may help you avoid collecting your own data** in cases when other existing data sources are insufficient.

After identifying what data are most useful to use, explore if and how you can obtain access to the data:

- Public health facility? Most data are available by request.
- Private health facility?
 - o Consider including data access as part of your contract or memorandum of understanding (MOU).
 - o Communicate how and when you will you protect a facility's sensitive information (e.g, infection rates).
 - Report impact statements in a way that individual facilities cannot be identified.
 - Explain who will have access to the data.
 - Be transparent about any situations when you are not able to protect confidentiality of the facility.



For those doing clinical service delivery, see our companion tool, <u>Strengthening Access and Quality</u> of Care Data. Photo credit: CDC PHIL, Paul Chenoweth, R.N., M.P.H., N.D.

IV. HIGH-QUALITY, EASILY ACCESSIBLE DATA

Harness the Power of Existing Data

Ensure that you are fully utilizing all the freely available, high quality and easily accessible country level data sources available at your fingertips!

National Bureau of Statistics

Make sure you are harnessing available resources through your country's National Bureau of Statistics website. These are good sources for figures, reports, and publications at the country and regional level. Many countries allow you to request access to the datasets for your own analysis.

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- India: http://www.mospi.gov.in/
- Kenya: http://www.knbs.or.ke/
- Tanzania: <u>http://www.nbs.go.tz/</u>
- Uganda: http://www.ubos.org/

Demographic and Health Surveys (DHS)

The Demographic and Health Surveys (DHS) Program, supported by USAID, collects, analyzes, and disseminates accurate and representative data on population, health, HIV, and nutrition in over 90 countries. Demographic and Health Surveys are often the main source of country and regional health information for low-income countries around the world. Types of surveys may include: Standard DHS, AIDS Indicator Surveys (AIS) Malaria Indicator Surveys (MIS), Services Provision Assessments (SPA), and Key Indicators Surveys (KIS). Traditionally, these surveys have focused on the major causes of mortality in particular maternal and child health data. However, newer surveys are beginning to include additional indicators such as those contributing to the non-communicable disease burden. Many countries conduct standard DHS surveys every 4-5 years. Smaller interim DHS surveys may be conducted between rounds of standard DHS surveys. http://www.dhsprogram.com/Data/

How can DHS data be utilized?

You have a few great options depending on your resources and needs:

- You can access previously compiled DHS findings via reports. Each country level DHS survey has summary documents available which review the major findings of each survey.
- 2. You can create customizable figures using DHS data. You can use StatCompiler to make customized tables, charts, graphs, and maps based on your selected demographic and health indicators by background characteristics and over time.
 - Instructions for using StatCompiler: http://dhsprogram.com/data/STATcompiler.cfm



3. You can even run your own data analysis!

You can access full DHS datasets for free by submitting a request through the DHS website.

- Step-by-step instructions on downloading the data: <u>http://dhsprogram.com/data/Using-Datasets-for-Analysis.cfm</u>
- Resources and guides on using the data <u>http://dhsprogram.com/data/Data-Tools-and-Manuals.cfm</u>

Institute for Health Metrics and Evaluation (IHME) Data Visualization Tools

Data Visualization Tools are a useful (and fun) resource developed by the Institute for Health Metrics and Evaluation at the University of Washington with support from the Gates Foundation. These tools allow users to create country-specific global burden of disease (GBD) data graphics. http://www.healthdata.org/gbd/data-visualizations

- GBD Compare (http://www.healthdata.org/data-visualization/gbd-compare)
 - o Use treemaps, maps, arrow diagrams and other charts to compare causes and risks of the burden of disease within a country and between countries.
- Health-related SDGs (http://www.healthdata.org/data-visualization/health-related-sdgs)
 - o Explore the country level progress made towards the United Nations Sustainable Development Goals (SDGs) between 1990 and 2015 using 33 health-related indicators.



World Bank Data

The World Bank compiles information about health and service delivery using datasets from United Nations Population Division, World Health Organization, United Nation Children's Fund, the Joint United Nations Programme on HIV/AIDS, and others international organizations.

http://data.worldbank.org/topic/health

- Searches can be made by country and indicators
- Data by year is available for download

World Health Organization (WHO) Data Repository

The World Health Organization has a data repository that is divided into themes based on Sustainable Development Goals, indicators, and countries. Provides time series data on non-communicable diseases and maternal/child health.

http://apps.who.int/gho/data/node.country.country-KEN?lang=en

UNICEF Cluster Indicator Surveys

Multiple Cluster Indicator Surveys collect information about child development, education, and health as well as reproductive health. Datasets and key findings are available for download. http://mics.unicef.org/surveys

African Population and Health Research Center (APHRC) Micro Data Portal

APHRC is a leading pan-African research institution headquartered in Nairobi, Kenya, that conducts policyrelevant research on population, health, education, urbanization, and development. Access available to datasets and study tools.

http://aphrc.org/catalog/microdata/index.php/catalog





V. HELPFUL RESOURCES

1. IDEA to IMPACT: A guide to introduction and scale of Global Health Innovation. 2015. USAID Center for Accelerating Innovation and Impact.

https://www.usaid.gov/cii/guide-introduction-and-scale

A reference guide that covers "who should be doing what, when", a practitioner's workbook, and a dynamic toolkit organized by stage to help global health practitioners scale and expand impact through priority activities and improved coordination.

2. Nine steps for developing a scaling-up strategy. 2010. WHO.

http://www.expandnet.net/PDFs/ExpandNetWHO%20Nine%20Step%20Guide%20published.pdf

This guide outlines a step-by-step process to develop a scaling-up strategy for already tested or successful health service innovations. Intended for program managers, researchers, and technical support staff.

3. Equity Tool.

http://www.equitytool.org/

An easy-to-use mobile or tablet-based app that can be used to evaluate the relative wealth of program beneficiaries. The tool reduces the number of questions and the complexity required to determine how wealthy beneficiaries are relative to the rest of the national or urban population. Multiple countries available.

4. Mobile Phone Panel Surveys in Developing Countries : A Practical Guide for Microdata Collection https://openknowledge.worldbank.org/handle/10986/24595

A handbook intended to contribute to the development of mobile phone data collection in low-income countries. The handbook documents how this approach to data collection works, as well as its advantages and challenges.

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ABOUT THE EVIDENCE LAB

The Duke Global Health Institute Evidence Lab conducts objective and high-quality evaluations using rigorous and innovative research designs paired with cutting-edge methods. Our team blends theory and practice, and draws upon the research and policy expertise across Duke University to inform our evaluations and to disseminate new evidence to policymakers and diverse stakeholders. We have deep, on-theground knowledge and experience with a wide range of global health projects and offer research and practice-based understandings of regional health challenges.

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SEAD brings together interdisciplinary partners through a coordinated effort across Duke University and leverages institutional relationships and networks to create an integrated global health social entrepreneurship hub for diverse stakeholders across the globe.

SEAD, in partnership with the U.S. Agency for International Development (USAID) and the USAID Higher Education Solutions Network (HESN), mobilizes a community of practitioners, investors, policymakers, faculty, staff, and students to identify, assess, help develop, build capacity of, and scale solutions, technologies, and business models for healthcare delivery and preventive services in developing countries around the world. Through this program, SEAD captures lessons learned and policy implications to ensure that our work impacts both entrepreneurs on the ground and the broader development community.

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