ACCESS TO HEALTH FRAMEWORK

GUIDEBOOK

A practical guide to measuring the impact of global health programs
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Recent evidence has shown that private-sector-supported global health programs, such as those sponsored by biopharmaceutical companies, are growing in quantity and scope, though very little is known about the results or outcomes of these activities. With funding and leadership from Takeda Pharmaceuticals to develop a framework intentionally for public use, Innovations in Healthcare (IiH) set about the development of a next-generation impact measurement system – the Access to Health Impact Measurement Framework (ATH Framework).

The ATH Framework supports the design, delivery, and evaluation of these global health programs. The Framework emphasizes the importance of understanding the health system context into which programs are being delivered, the activities and outcomes relevant to the health topic being addressed, and the importance of understanding a person’s experience in interacting with or accessing the intervention or program. The ATH Framework aligns with foundations of a high-quality health system espoused by The Lancet Global Health Commission on High Quality Health Systems in the SDG Era, namely, “the population and their health needs and expectations, governance of the health sector and partnerships across sectors, platforms for care delivery, workforce numbers and skills, and tools and resources, from medicines to data. In addition to strong foundations, health systems need to develop the capacity to measure and use data to learn.”

In the following sections you will learn about the Access to Health Impact Framework and how to deploy the framework as a roadmap to improve measurement and evaluation within your programs. The guidebook features templates and examples from IiH’s application of the framework to a large health access program in Kenya, supported by the private sector, and implemented by a consortium of organizations.

**INTRODUCTION**

Why Evaluate?

Real-time measurement and evaluation during the implementation of a program allows a program team to:
- Gauge progress
- Identify problems in implementation and/or data collection
- Adapt or improve the program implementation plan in nearly real-time

Longer-term evaluation helps program teams:
- Determine the effectiveness and impact of the program
- Explore reasons for successes and disappointments
- Determine whether or not the program is effective enough for scale-up
- Identify adaptations that may be needed to ensure scalability and sustainability
The Access to Health framework can be used to support different types of evaluation, including needs assessment, process evaluation, and outcome evaluation.

**A NEEDS ASSESSMENT** establishes the needs of a population, and what gaps there are in the health system in meeting those needs. Conducting a needs assessment can help identify the resources required, and those already available, to implement a program. A needs assessment is conducted before program implementation, and helps to inform programs goals and objectives, program design, and the process and outcome evaluation plans.

**A PROCESS EVALUATION** assesses the extent to which a program has been implemented as planned, and focuses on activities and outputs. Process evaluation can be conducted during implementation to inform changes to the program, and/or at the end of a program to describe what has been done and to help assess how implementation affected outcomes. Process evaluation should include questions about contextual factors, barriers and facilitators to implementation, and user satisfaction.

**AN OUTCOME EVALUATION** measures changes in target population(s) that are exposed to the program. This could include changes in health outcomes among patient beneficiaries (for example, a decrease in cancer mortality rates from beginning of program to end), changes in patient beneficiary knowledge or behavior, or changes in healthcare provider knowledge. An outcome evaluation measures the amount and direction of change, whether change met program targets, and may compare the change to a control or comparison group (that does not receive the program). Outcome evaluations can be used to determine effectiveness of a program and make decisions about whether the program should be maintained.

**ECONOMIC AND SOCIAL IMPACT EVALUATION FOR SOCIAL ENTERPRISES**

One type of outcome evaluation that a health-oriented social enterprise may wish to conduct is a cost-benefit analysis (CBA). This type of analysis assesses the economic benefits (the monetary value of health outcomes) against the costs of a given program or intervention. CBA involves measurable financial metrics such as costs saved or intangible benefits and costs, such as decreased cancer mortality. CBA can be implemented 1) at the onset of a program to decide the most appropriate set of interventions to implement, or 2) at the end of a program to appraise the effectiveness or outcomes of the interventions employed. The combined use of both the CBA and Social Return on Investment (SROI) is on the rise as it allows for community or stakeholder participation and broadening of their scope to account for social benefits gained.
No matter what kind of evaluation you are planning to implement, it is best to begin evaluation planning and baseline data collection on the setting into which your program will be implemented, before program implementation begins. Doing this will allow you to:

- Establish the most meaningful activity and outcome targets for your program, which can then inform program design and activity selection
- Have a plan in place for data collection throughout the program
- Establish a baseline against which to measure progress

EVALUATION FRAMEWORKS

Often, evaluation plans are set against a project framework or roadmap that outlines goals, activities, and measurement opportunities in a logical way. The following are examples of frameworks to guide program measurement and evaluation.

DONABEDIAN HEALTHCARE QUALITY EVALUATION MODEL

The Donabedian model for evaluating the quality of medical care uses a triad model of structure, process, and evaluation. Structure consists of the physical and organization settings in which health is delivered, and includes facilities, personnel, and equipment. Process consists of the components of care delivered, such as diagnosis, treatment, and patient education. Outcomes in this framework refer to patient and population health outcomes such as recovery, restoration of function, and survival.\(^{10,11}\)

**STRUCTURE**
Physical and organisational characteristics where healthcare occurs

**PROCESS**
Focus on the care delivered to patients e.g. services, diagnostics or treatments

**OUTCOME**
Effect of healthcare on the status of patients and populations

LOGIC MODEL FOR MONITORING AND EVALUATION\(^{12}\)

Logic models link program outcomes with outputs, activities, and inputs, and are commonly used for program monitoring and evaluation.

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<thead>
<tr>
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inputs indicators | process indicators | outputs indicators | outcomes indicators | impact indicators |
DEFINING IMPACT AND OUTCOMES

To understand what to measure and track while the project is being implemented, we need to understand the intended outcomes and impact. But what does that mean?

The difference between outcomes and impact can be tricky to discern, and is not always black and white. One key difference is the time frame of measurement. Outcomes objectives should be realistic given the program goals and should be achievable within the relevant time frame. The objectives can be divided into short-term, medium-term, and long-term outcomes.¹³

Short-term outcomes are results that will be achieved either immediately following the implementation of an activity or up to two years from the outset of a program. These results are typically changes to skills, awareness, knowledge, or attitudes.

**EXAMPLE:**
Improved knowledge among healthcare workers on timely cancer diagnosis.

Medium-term outcomes are results that can be anticipated to be achieved three to six years from the inception of the program. These results are typically changes to behavior, practice, or policies.

**EXAMPLE:**
Improved referral of patients with suspected cancer for appropriate diagnosis and specialized treatment.

Long-term outcomes (or “impact”) are population level results that may be achieved in seven to ten years after program inception. These results are typically meaningful or impactful changes in social, environmental, institutional, or cultural behaviors.

**EXAMPLE:**
Reduction in population cancer mortality or morbidity.

As it takes time before long-term outcomes (impact) can be seen and many programs may not take place over this length of time, short-term and medium-term outcomes can provide an opportunity to describe meaningful results.

Another way to think about outcomes and impact is to situate them on a causal pathway. Activities lead to short-term outcomes, which lead to medium-term outcomes, which in turn lead to long-term impact.

OUTCOMES & IMPACT CAUSAL PATHWAY

- **ACTIVITY**
  Train healthcare workers in early cancer detection and referral.

- **SHORT-TERM OUTCOME**
  Improved skills among healthcare workers in early cancer detection and referral.

- **MEDIUM-TERM OUTCOME**
  Improved detection and referral.

- **IMPACT**
  Decreased mortality from cancer in the target population.
DEFINING YOUR PROGRAM’S IMPACT

An important aspect of evaluation planning is to have something to work towards and to define your outcomes against. Writing an impact statement for your program or activity can help you define the type of change you want to see as a result of your program.

When writing your impact statement, be sure to use the S.M.A.R.T. guidelines - Specific, Measurable, Attainable, Relevant, and Time-based.

EXAMPLE IMPACT STATEMENT:
The Blueprint for Innovative Healthcare Access program seeks to improve survival and quality of life for people impacted by NCDs by strengthening high-quality, integrated, and consistent local healthcare capacity and capabilities across the patient journey.

This statement describes the high-level goals of the program and enables the development of an evaluation plan based on these statements.

1. EXAMPLE GOAL 1: Improve survival of people impacted by NCDs

2. EXAMPLE GOAL 2: Improve quality of life for people impacted by NCDs

YOUR IMPACT STATEMENT:

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________

YOUR GOAL(S): Write as many as are relevant

_________________________________________________________________

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_________________________________________________________________
The Access to Health Impact Measurement Framework (ATH Framework) is a roadmap to enable greater outcomes and impact measurement and reporting. It is designed to support program managers and evaluators to incorporate measurement and evaluation into health programs and activities by providing an organized structure that enables assessment across three domains that are key to driving greater impact: health system context or environment, health activity or therapeutic area, and patient experience. The ATH Framework helps a program manager organize the resources (structures), activities (processes), and changes they intend to achieve (outcomes) in a logical format.

Through our initial research to develop the framework, our team noted three common challenges relating to the impact and evaluation of private-sector-supported global health programs:

1. **The health system or setting into which programs are being delivered are either not measured or considered prior to the development of the program.** For example, programs do not have information about the capabilities of local healthcare providers to address the health topic, programs are lacking data about the prevalence of a disease in a certain population, or that individuals need to travel far distances in order to participate in an activity. These challenges could lead to poor results if not recognized or addressed.

2. **The ‘stand-alone’ nature of many programs addressing only one stage of the health continuum (e.g. a health screening that does not also integrate activities focused on diagnosis or treatment) means that individuals needing subsequent care may not be supported and thus health outcomes may not be achieved.**

3. **Existing programs tend not to focus on the patient engagement and experience, such as patient satisfaction or trust in providers or the health system, which affect access to and utilization of health services.**

The Access to Health framework encourages program designers, leaders, and evaluators to include all three domains in their programs and to integrate the next step of the health continuum in their planning and evaluation processes. A program that includes activities across all three domains of the framework may have a greater opportunity to achieve impact and improved health outcomes.

**ADDRESSING DOMAIN GAPS WITH HEALTH INNOVATION AND PARTNERSHIPS**

Any gaps identified across the three domains offer an opportunity for health innovation by either adopting existing innovations or developing innovative solutions to address the gaps. For example, linking hospital management information systems (HMIS) or electronic medical record (EMR) systems to referral hospitals or hospices would enable tracking of patients to ensure they receive treatment and the needed care, reducing the number of patients lost to follow up. Organizations without activities or expertise in a subsequent stage of the health continuum may seek out partnerships where their expertise is lacking to generate greater impact and health outcomes.
DOMA IN 1: 
HEALTH SYSTEM CONTEXT

This impact domain assists a program team in understanding the context or environment in which a program or activity will take place, helping to identify critical factors that need to be addressed for program success and sustainability. The categories in this domain include Population, Policy, Financing, Delivery Capacity, and Product Development and Supply. Each category has measurable sub-topics which provide a guide for conducting gap analysis, program design, baseline measurement, and evaluation over time (see Figure 1).

FIGURE 1. EXAMPLES OF HEALTH SYSTEM CATEGORIES AND MEASURABLE SUB-TOPICS

These measurement examples (under each category) guide you to understanding the context into which your program will be implemented. You are encouraged to collect data based on the relevant measures at the outset of your program (also known as baseline data). This baseline data may serve as a reference point for an outcomes evaluation to enable you to see changes that may have taken place (for example, did the health of a specific population improve? Did financial support increase for a specific treatment? Are people paying less out of pocket for health services?). Programs already underway may even be leading activities that improve the health system (like healthcare provider trainings or policy advocacy). If your program includes activities to strengthen the health system in any of these domains, measurement and evaluation should take place.

DOMAIN CATEGORIES:

POPULATION
- Burden of disease
- Equity
- Target population for intervention
- Social determinants of health

POLICY
- National and subnational laws, regulations
- Government priorities
- Regulatory framework
- Practice guidelines, disease-specific clinical guidelines
- Scope of practice

FINANCING
- Financing of health services and technology
- Total household out-of-pocket expenditure: health
- Total household out-of-pocket expenditure: medicines/treatment

DELIVERY CAPACITY
- Governance and culture
- Information technology
- Quality systems
- Patient-centeredness
- Professional accreditation/certification
- Current and future workforce capacity
- Physical infrastructure
- Stakeholder, partner alignment

PRODUCT DEVELOPMENT & SUPPLY
- Supply chain
- Regulation and legislation
- Manufacturing
- Licensing agreements

EXAMPLE:
Programs may involve training or education programs for health providers or healthcare workers to strengthen their capacity to deliver health services; these types of activities fall under the Delivery Capacity and Competencies category and should be measured for their outcomes.

Define the population for your program. What is the burden of disease? A high burden of disease indicates this region or country may need significant support for this health area.

Understand the government’s priorities for your specific health topic. Will your program be supported or sustained long-term by the public sector?

Yes? Continue to maintain a strong relationship with the public sector and keep them informed of your program’s activities. Work on a sustainability plan with the public sector to ensure your efforts will continue once your program has ended.

No? Consider how you will involve the public sector in your program. Can you engage with them and keep them informed of your activities? Will you need to advocate for their support of the program?
Know how people pay for health services. If your program involves people paying for their care, can they pay? How will they pay—out of pocket or with health insurance?

Understand the ability of the local workforce and infrastructure to support your program. Does the workforce have the right competencies to conduct activities? Can the physical infrastructure of health facilities support your program? Many global health programs consist of capacity-building and education programs for health professionals, in addition to building infrastructure to support future activities. If your program intends to include these types of activities, be sure to include them in your evaluation plans as they are important components of programmatic sustainability.

Identify the availability of health products that will be used in your program. How accessible are they? Will they need to be regulated for use in the program? Does the supply chain need to be strengthened to get the products to your facilities?

**Domain 2:**

**Health Activity or Therapeutic Area**

This impact domain covers the specific community or individual health improvement activities that occur during a program, like a health screening or providing treatment for diabetes.

Domain categories that are key elements of the health continuum:

- **Prevention**
  - Activities focused on disease prevention (e.g., quit smoking campaigns)

- **Awareness**
  - Activities focused on increasing knowledge about health

- **Screening**
  - Activities focused on identifying early stage disease(s) in a population

- **Diagnosis**
  - Activities focused on accurate identification of disease in individuals presumed to have disease

- **Treatment**
  - Activities focused on providing medication, surgery, or other intervention to cure, alleviate symptoms, or reduce progression of disease

- **Monitoring / After Care**
  - Activities focused on patient follow-up after treatment has occurred, including routine appointments. May include end-of-life care.

Each health continuum category has measurable sub-topics which are organized by structures, processes, and outcomes, according to the Donabedian model for evaluating health systems.4

**Example of Structure, Process, Outcome Pathway for a Hypertension Screening Program**

**Structure**
- Screening tools (blood pressure cuff)
- Screening personnel
- Screening location

**Process**
- Screening activity (blood pressure check)

**Outcome**
- Referral to healthcare provider for hypertension treatment (rate and timeliness)
- Community hypertension rate change
DOMAIN 3: PATIENT EXPERIENCE

This impact domain addresses the contextual and project-related factors that impact an individual’s experience with and within the health system. Similar to the health activity domain, categories in this domain also align across the health continuum and the sub-topics are organized by structures, processes, and outcomes. It is important to note that some of the sub components cut across multiple health continuum categories.

EXAMPLE OF STRUCTURE, PROCESS, OUTCOME PATHWAY FOR AN INDIVIDUAL’S EXPERIENCE WITH A HYPERTENSION SCREENING PROGRAM

- **STRUCTURE**
  - Hours of screening program operation
  - Screening location

- **PROCESS**
  - Knowledge of screening activity
  - Empowered to seek health services

- **OUTCOME**
  - Knowledge of health topic
  - Health service utilization
  - Ability to perceive a need for care
  - Adherence to treatment plan
**IMPORTANT NOTES FOR PROGRAM DESIGN AND IMPLEMENTATION:**

Programs do not have to have activities in each stage of the health continuum. However, activities occurring in any part of the health continuum should be linked to the next stage in the continuum in order to achieve greater impact, whether through outcomes measured or specific activities in the adjacent category of the continuum. Example: a screening program should connect people suspected of having a disease with proper diagnosis opportunities – the program can either perform the diagnosis or direct people to locations that can provide appropriate diagnosis (these facilities should be aware of and/or involved in the program for measurement opportunities).

In some cases, multiple partners might be working the same domain or category, thus it is critical to clearly outline each partners’ activities to increase efficiency, potential impact, and avoid duplication of effort and resources.

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**ACCESS TO HEALTH IMPACT MEASUREMENT FRAMEWORK | Patient Experience | 10**
BEFORE YOU MOVE ON:

PAUSE TO REVIEW AND SEE IF YOU UNDERSTAND THE CONCEPTS COVERED SO FAR.

Use the Access to Health Impact Measurement Framework (ATH Framework) to evaluate and measure impact.

The ATH Framework provides an organized structure that enables assessment across three domains that are key to driving greater impact:

DOMAIN 1: HEALTH SYSTEM CONTEXT

DOMAIN 2: HEALTH-THERAPEUTIC AREA

DOMAIN 3: PATIENT EXPERIENCE

OUTCOMES & IMPACT

The primary method to design and assess the impact of your program is by using the Donabedian Healthcare Quality Evaluation Model of:

STRUCTURE

PROCESS

OUTCOME
STEP-BY-STEP GUIDE TO APPLY THE FRAMEWORK TO MEASURE PROGRESS AND IMPACT

IDENTIFY WHERE YOUR PROGRAM FITS IN THE FRAMEWORK DOMAINS

To align your program with the Access to Health framework, first, identify where your program fits within the three domains. Review each of the domains and its subcomponents. Thinking about the activities you intend to undertake, which domains might these fit under? What domains are missing from this assessment? Remember, for a program to generate the greatest impact, all three domains should be considered.

EXAMPLE:

Your organization is focused on improving awareness of and increasing access to cervical cancer treatment in a specific region. Your primary activities involve leading an HPV vaccination event at a local school (these are vaccines that prevent cervical cancer infection), increasing awareness of the disease through door-to-door information campaigns, conducting cervical cancer screenings, collecting potential tumor samples for pathology and diagnosis, conducting radiation treatment, and sending follow-up appointment reminders to patients through a mobile app. Since you are primarily focused on activities addressing a specific health topic and activities involved in the health continuum, the Health / Therapeutic Area domain is a good place to start mapping these activities, as shown in the graphic below (see orange text in boxes).

Any activity that involves individuals accessing health services necessitates that you understand how they are accessing health services (e.g., What is their wait time for treatment? Do they need to travel?) and their trust, beliefs, and understanding of the intervention or program you are providing, for it to be as impactful as possible on their health outcomes. In this example, patients with cervical cancer need to wait a long time for their radiation treatment appointments at the local hospital and tend to feel anxious while waiting. In order to ease their anxiety and minimize wait times, the program is working with the local hospital to streamline the patient check-in process. These activities that improve the patient’s experience with the health system are mapped to the Patient Experience domain.

Finally, the program also trains local healthcare providers in identifying the signs and symptoms of cervical cancer and advocating for more funding for cancer treatment; these activities are strengthening the capacity of the local health system to provide cancer care and therefore should be mapped to the Health System Context domain.
CREATE YOUR IMPACT MEASUREMENT PLAN

Now that you have reviewed and identified the health domains your program falls under, the next step involves defining your programmatic goals, outcomes objectives, activities, and programmatic resources. The “structure, process, outcome & indicator” worksheet depicts the structure, process, outcomes flow from the Access to Health framework and helps you to map these components in a logical way. This worksheet is meant to be completed as a collective exercise with multiple project team members, including, for example, the project leader, data manager, and field data collectors. See Appendix I.

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<tr>
<th>IMPACT GOAL:</th>
<th>PLANNED ACTIVITIES</th>
<th>INTENDED RESULTS</th>
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**EXAMPLE:**
Decrease in mortality rate from cancer from baseline, over a seven-year period.

**Question:**
What impact does your specific program intend to achieve?

**Task:**
Outline your program impact goals. What do you want to see as a result of your program activities?

- Also consider: Who are your stakeholders and what are their priorities? Which of these stakeholders and priorities are most important?
- Goals should align with the domain or domains identified above.

Once you have identified the specific goals your program aims to achieve each in domain area, write these in Section 1. If your program has multiple goals, consider using a different worksheet for each specific goal.
Outcomes are the expected changes or actions resulting from the implementation of a program. This section of the worksheet outlines the intended effects of program activities on target beneficiaries. A program may have several outcome objectives based on the goal(s) it is trying to achieve and the impact domain(s) it addresses.

Questions to consider:
What changes in health outcomes do you expect to see as a result of the program? What changes in health systems structures and processes will be needed to achieve or move toward sustainability impact? Are there specific outcomes that funders/other stakeholders are particularly interested in? Consider short, medium, and long-term outcomes.

Task:
Once you have determined your short, medium, and long-term outcomes for each goal, write them in Section 2 of the worksheet.

**EXAMPLE:**

Short-term outcome: Increase in health worker knowledge of early cancer detection from baseline over one year.

Medium-term outcome: Earlier detection of cancer from baseline over a three-year period.

**BALANCING IMPACT AND FINANCIAL RETURN:** Include cost-benefit outcomes that align to your goals. The outcomes might be tangible such as reducing cost or improving health or less tangible such as improved community empowerment and participation.

**NOTE:** the less tangible benefits may be more difficult to evaluate as they need to be translated from qualitative to quantitative data.

This section of the worksheet is where you will list all activities and sub-activities that the organization will perform and the direct results of those activities (defined by quality or quantity, such as participants reached or materials developed), so that the organization carries out its goals.

Questions to consider:
What activities are needed to achieve the outcomes identified in step 2? What outputs (the direct results of activities) will be achieved?

Task:
List the activities and outputs in the worksheet under Section 3.

**EXAMPLE:**

Activities: Develop an online cancer training curriculum, train health workers/community health workers on early identification and diagnosis of cancer, and provide mentorship and supervision of healthcare workers.

Outputs—Trainings: trained healthcare workers; mentored healthcare workers; online cancer training curriculum developed.

**SUSTAINABILITY NOTE**

Consider activities and outputs that are needed to ensure continued impact beyond the end of the program. Who will maintain these activities after the end of the program (e.g. local health system)? For example, creating a training curriculum that an organization can use to support future trainings that occur after the program ends or ensuring that a local hospital keeps the specific disease-trained providers in the right ward.

Structures are resources needed to carry out the program activities. This section will include a list of all resources the program will need to perform the activities that will allow it to achieve its goals.

Questions to consider:
What resources will you need in order to carry out the activities?

Task:
Identify the resources needed and write them in Section 4 of the worksheet.
An indicator is a marker of accomplishment or progress towards achieving a specific output or outcome. This section outlines the indicators that will be used to measure whether program output and outcome objectives were met. Indicators should ideally address short, medium, and long-term outcomes, as well as structures and processes. They should also be “S.M.A.R.T”—specific, measurable, achievable, relevant, and time-bound. The box below includes further explanation about how to track and define indicators, with examples.

Question:
What will you measure to determine whether your program process and outcome objectives were met?

Task:
Identify output and short-, medium-, and long-term outcome indicators for your project. Write these indicators in section 5 of the worksheet.

For a program to have impact, the changes (outcomes) should last beyond the end of the program period. For example, in evaluating a three-year program that builds healthcare worker capacity in screening for cancer, one might evaluate whether knowledge (a short-term outcome) improved from baseline to post-training. However, it is just as important that the improvement in knowledge is maintained one, three, and even five years down the road. In your evaluation plan, include indicators that can measure changes after the end of the program.

The last section outlines any assumptions made or external factors that might be beyond the control of the implementation team that could affect project outputs or outcomes. Any external factors that are necessary for the project’s success are also defined here.

Questions:
What do you assume about the program and how it is intended to work?
What are things beyond your control that could impact the program?

Task:
Write these assumptions in Section 7 of the worksheet.

Selecting and Prioritizing Indicators
Developing the list of indicators can be done through a combination of internal brainstorming, consulting the Access to Health framework indicator library, and researching indicators from similar projects.

After brainstorming possible indicators, undertake a prioritization exercise to select the best indicators. It is important to only select the minimum set of indicators that would allow a project’s implementation team to track its progress; also consider indicators for which data can be collected as part of routine work and consider any burden that might be imposed on front line workers. Failure to do this will add unnecessary cost and effort to collect, record and analyze data. To help select the best indicators for your program, keep the following in mind:

- A set of indicators ideally includes at least one indicator from each level (i.e., structures, processes, and outcomes).
- Examine indicators carefully to ensure they are on the causal pathway to the desired outcomes and are likely to have a high impact.
• Again, be sure to consider what donors and other stakeholders will prioritize, who will be using the data collected on the indicators, and how. Also consider the capacity and cost for collection.
• Make sure to include indicators that can be measured after the program ends, and that allow for evaluators to assess sustainability of the program’s impact.
• In addition, indicator measurements should be verifiable. This means that anyone using the same indicator should be able to obtain the same exact measurements.

Once indicators are selected, make sure they follow the S.M.A.R.T. acronym.

SPECIFIC
the indicator expressly identifies concrete outputs/outcomes

MEASURABLE
the indicator can be quantified and measured

ACHIEVABLE
the described result can be achieved given the capacity and plans of implementation of the program

RELEVANT
related to the intended objectives of the program

TIME-BOUND
is specific about the time in which an objective may be achieved

REVIEW
COMPLETING THE WORKSHEET

☐ **STEP 1** Draft the impact goal(s) your program aims to achieve in each domain area (health system context, health/therapeutic area and patient experience) in first column. Considering using a different worksheet for each goal.

☐ **STEP 2** For each goal, list the outcomes you want to achieve.

☐ **STEP 3** List the activities that you will need to undertake to be able to achieve each of the outcomes, who you will reach, and any products you will create under the process (activities or outputs) section.

☐ **STEP 4** List the resources you will need to undertake the activities in the structure (resources or inputs) section.

☐ **STEP 5** For each resource, activity, and outcome listed, write down what indicators you will use to track progress under the text box below it (in the “SMART INDICATORS” row).

☐ **STEP 6** Identify the data sources that will be used to track each indicator, and write them in the means of verification row.

☐ **STEP 7** Outline any assumptions made and external factors that will affect your results in the assumptions and external factors sections.

A blank and sample of a completed worksheet are found in the Appendix I.
OPERATIONALIZE STRUCTURE, PROCESS, AND OUTCOMES INTO AN EVALUATION PLAN

To operationalize the outcomes, outputs and indicators, it is important to clearly plan how data will be collected, by whom and when it will be collected, and plans for analysis. A one-page evaluation plan worksheet can be combined with the "structure, process, outcome & indicator" worksheet. An example evaluation plan worksheet can be found in Appendix II.

THE FOLLOWING ITEMS SHOULD BE IDENTIFIED FOR EACH INDICATOR (AS APPLICABLE):

- **Reference point/baseline data**: Capturing the original data and/or situation of the target location will allow comparison of the situation prior to and after the program's implementation, and thus validate the program's effectiveness.
- **Target value**: What is the target value you would like to achieve for each indicator? When do they plan to achieve it? For example: Indicate how many healthcare workers you would like to train over the course of a program year.
- **Cost**: What is the cost, if any, of collecting data on the indicators?
- **Unit of measurement and disaggregation**: Identify the unit of measurement for each indicator (e.g. days, hours, number, percent) and indicate any disaggregation of the data you would like to have (male / female, age, type of healthcare provider, religion, ethnicity, etc.).
- **Data gathering frequency and time frame**: Identify how often the data for each of the indicators are to be collected.
  - What frequency is the data needed?
  - How often is the data able to be collected?
- **Expertise needed**: Identify what type of expertise is needed for gathering and analyzing the data. This includes basic data extraction skills, qualitative/quantitative data skills, and computer software knowledge.
- **Data use**: When collecting data, it is important to ensure there is a plan on how the data collected will be used. This includes understanding your audience for the data (funders, internal team, external stakeholders), what the data will be used for, how best to present the data to those stakeholders, how and where the data will be reported, the most efficient way to provide feedback to direct beneficiaries and the best process for reviewing and acting on the results of the data.
- **Responsibility**: Identify who is responsible for collecting the data, conducting analysis of data, and addressing data quality, privacy, and security issues. Note: Although the entire program team should participate in evaluation activities, it is important to identify individuals at the front line at the point of care or activity to collect data. Also identify one or two people to oversee data collection, including reliability of collection and quality. Other team members may be identified to analyze and report the data. Ideally these members should not be the project director or coordinator as they generally have many responsibilities and may not have the necessary time to dedicate to impact measurement activities.

DATA COLLECTION

Now that you have developed evaluation plans and identified indicators to measure the progress of your programs, it’s time to collect and analyze data to measure project success and change over time. Once data analysis is complete, finding the best way to share and communicate the outcomes and impact your program is having can enable better decision making and lead your audience to the right conclusions. Storytelling adds value by assigning meaning and context to the data creating a more actionable and informed environment for stakeholders. The data and stories you seek to tell will vary based on what questions you want to answer and what stakeholders you are catering to.

This important step to round out your evaluation process covers types of data, data collection methods, analysis, and communication to help programs tell a compelling outcomes-focused story.
When collecting data on health—whether qualitative or quantitative—it is important to remember that this information can be very sensitive and risks negative consequences if personal information is exposed to the wrong parties.

The following are types of health information that you may be collecting during your program or intervention:

- **Personally, Identifiable health information (PII):** This is individual-level health information that contains personal identifiers that allow the identification of patients or other beneficiaries. This information is often obtained at the point of service delivery. It is very sensitive information as the risk of negative impact to the patient/beneficiary is high in cases of a confidentiality breach. Organizations should therefore consider how critical personal identifiable health information is to the project's success and what the consequences would be if those data are exposed to third parties, before deciding to collect it.

- **De-identified or pseudo-anonymized health information:** This is individual-level information that has been stripped of certain identifiers, such as names and addresses. Pseudo-anonymization involves replacing direct identifiers (e.g., name, phone number, email address) in a dataset with pseudonyms (e.g., nicknames, numbers, or other codes). The information that links the pseudonyms with the direct identifiers is stored separately from the main dataset. This makes individual identification difficult.

- **Anonymized or non-identified health information:** This is data that has been stripped of all identifiers, making it almost impossible to link the data to the personal record at the facility, by all means reasonably likely. No keys are kept.

- **Aggregated health information:** This is data based on aggregating individual-level information into an indicator.

- **Non-personal health information:** This is information on medicines and medical supplies, information on facilities, geographic data, and other logistics.
Planning for data collection is key to getting timely, complete and quality data to be able to run effective analysis. You need to consider the following “who, what, when, and where” questions. Use the Data Collection Template in Appendix III to assist you in your program activity tracking efforts.

Who is collecting the data? To ensure that data that you want is collected consistently and in a timely manner, you also need to identify who is responsible for collecting this data. You will need to look at your timelines, what data you are seeking, and the time and capacity of the individual or team you have identified.

What types of data are you collecting?

In order to measure change in outcomes, it is essential to understand the baseline BEFORE the program is implemented. This is why developing an evaluation plan at the beginning of a program is important. Collecting baseline data on the locations and/or populations you are working in/with will provide a starting point to assess change over time.

Process, output and outcome data are important to tracking the results of your activities from beginning to end of your program. This data will tell you if your program is doing what you expected it to and gives you a chance to make pivots if needed. Your evaluation plan will be able to help you decide on when and how often to collect this data.

EXAMPLE:
Your program sends community health workers to visit 500 households in five districts to collect vital health information and check for high blood pressure (hypertension) every quarter for three years, with a goal to increase referral rates to local clinics for proper diagnosis and treatment of hypertension and reduce community hypertension rates.

Process indicators: # households visited; # blood pressure checks completed; # of suspected hypertensive individuals identified; # of suspected hypertensive individuals referred to local clinic; # individuals with diagnosed hypertension; # individuals with controlled hypertension

Outcome indicators: Referral rate for diagnosis and treatment; rate of controlled hypertension in community

This data will be collected at every household visit and summarized every quarter of the program for up to three years.

Once the program is complete, we collect “endline” data. This is essential to understand the results AFTER the program has been implemented. This can be compared to baseline data to show us the change that has taken place from the start to finish of your program. Interventions may, of course, continue beyond the program period and data may continue to be collected for internal use. For our purposes, endline data marks the end of the program and provides information on what outcomes and impact the program has had.

WHERE

1. Where is your data coming from?
2. Where is your data being stored? Where do you intend to conduct your data analysis?

Data can come from a variety of sources. This is why it’s important to identify what types of data you want to collect and how you are going to get it.

Programs can use both primary and secondary data to support their program analysis. Primary data is new data generated and collected by the researcher. Secondary data is existing data generated independently of program activities.

Taking into consideration data privacy, confidentiality and security, where will the data be stored for ease of access, reporting and analysis? Is it all the same place? Is it different places? Does the formatting of your data need to be adjusted for use on different platforms, like visualization software or statistical software? These are all questions to consider as you think about where your data is being stored and analyzed.
To protect data subjects from attacks on their privacy, dignity, and even safety, responsible practices require that all organizations and individuals collecting and using individual data to consider data privacy issues upfront and integrate privacy in the design of health care projects and applications and throughout the lifecycle of any system, service, product, or process.

This requires careful balancing and planning at each stage of the data life cycle with a practical risk assessment. Some key privacy-related aspects to consider at each stage of the data lifecycle are highlighted below:

**DATA LIFECYCLE**

### DATA COLLECTION AND TRANSMISSION

Before collecting any personal data, it is important to ensure that the entire data collection team is knowledgeable about data privacy and its importance. In addition, informed consent must be obtained from the participants. As part of getting informed consent, it is important to ensure that individuals understand who is collecting their data, why their data is being collected, how the data will be used and shared, how they can access their data and how they can request it to be corrected, if necessary. Individuals should be informed of and fully understand the risks related to sharing their data and should be given the option to refuse to participate. Consent must be obtained and recorded in an ethical, agreed-upon manner e.g., orally, in writing, or via the electronic method, preferably at the time of collection.

If **electronic data collection** is utilized, all devices used for collection must be set up consistently, to maximize security and ensure no unauthorized access to the data, including in cases of theft and loss. As the first layer of defense, all devices should be password protected at a minimum. Furthermore, survey forms containing personal data should be encrypted during transmission.

For **paper-based collection**, it is important to ensure that there is a clear chain of custody while transporting the data (e.g., with enumerators in the field). The papers should be carried in a way (e.g., in a folder or bag) that no one can see the data apart from those who are authorized. A pseudonymization or anonymization system can also be used as a security measure for both paper and electronic data collection.

**IMPORTANT!**

Good data protection practices are crucial when handling data to protect and minimize confidential information and identities of individuals represented in data sets from unauthorized access and manipulation by third parties.

Data protection principles require that individuals and organizations collecting and using personal data be transparent about how data will be collected and used, only collect data for specific, defined, and legitimate purposes, and minimize the amount of personally identifiable and sensitive information collected.

It is important to ensure that individuals whose data is being collected and analyzed are provided with information in a transparent, plain local language regarding who is collecting their data, the purpose of collection, and with whom that personal data may be shared. Informed consent for collecting data must also be obtained from individuals before collecting data.

Furthermore, organizations should uphold individual privacy and ensure the confidentiality and integrity of personal health data, throughout the data life cycle, by applying appropriate organizational (principles, policies, procedures, processes, controls) and technical (physical devices, hardware, software) data security measures, to prevent unauthorized access or use of the data.  

WHEN

**How frequently and when are you collecting data?**

Timing of data collection, the “when,” is important to ensure all the data is collected in a timely manner, ranging from before the program starts (baseline), throughout the program (to measure progress and inform changes to the program), end of program (to assess outcomes) and after the program ends (impacts/sustainability). Frequency of data collection should be identified in the evaluation plan. Timing of data collection should consider when it is recorded as well as when it is reported.

To protect data subjects from attacks on their privacy, dignity, and even safety, responsible practices require that all organizations and individuals collecting and using individual data to consider data privacy issues upfront and integrate privacy in the design of health care projects and applications and throughout the lifecycle of any system, service, product, or process. This requires careful balancing and planning at each stage of the data life cycle with a practical risk assessment.

Some key privacy-related aspects to consider at each stage of the data lifecycle are highlighted below:
Electronic data should be stored in a secure server or cloud storage service that only allows secured access. Data on paper should be stored in a locked drawer with controlled access only for those who are approved to use the data. Organizational security policies and procedures should be in place, including guidelines for how authorized individuals may access personal data, the nature and scope of activities that are permitted under each authorization, and the process by which an individual may receive authorization to access personal data.

Data-sharing agreements should be made between all data-sharing partners. The agreements should comply with the national laws of all countries involved, regional and global legislation, and any other legally binding agreements and should properly consider the rights and interests of all parties.

Before transferring personal data outside the country, it is important to ensure that you had/have secured the implicit consent of the participant who’s the data belongs and also that you comply with the laws of international transfer of the relevant country.

Transfer of data should be done securely. If electronic, data should be transferred using protected means of communication and in an accessible, machine-readable, standardized, timely, and interoperable format to maintain data protection across sending and receiving parties.

When undertaking cleaning and analysis, pseudonymization or anonymization should be undertaken whenever possible. It is important to keep a log of all data processing activities including data collection and analysis tools methods and tools.

When publishing a dataset or a report, it is important to ensure that re-identification would not be possible by any likely reasonable means. Data publication should be done at an aggregate level, paying close attention to any information provided e.g., of a specific region and minority groups that when combined can be used to identify specific persons.

Personal data, including pseudonymized datasets data should be destroyed once no longer needed for the purpose the consent was obtained and as per the laws of the country in which the data was collected and is being stored.

When destroying data, you should ensure that all copies and versions of the personal or sensitive information captured throughout the project are destroyed. Electronic data in hard drives, cloud file storage, flash drives, email inboxes should be completely erased using an erasure program, and paper-based records should be destroyed by a shredder or similar means.

While taking the above data privacy and sharing considerations in to account it is important to always comply with the local data protection and privacy laws in the country where data is being collected, processed, or stored.

**DATA QUALITY**

Next, in order to make use of your data and prepare it for analysis, it must be clean and of good quality. Cleaning and quality checks should take place frequently as the data gets collected, stored and analyzed.

As data is collected and stored, quality checks can be run to look for missing data, inconsistent data, or out-of-range values. Depending on what process or software you use to analyze your data, data cleaning is crucial to ensuring that the system can run your analysis without any problems. Other factors to consider when cleaning include: spelling, formatting (e.g. spacing before and after words should be uniform), and making sure not to mix words, numbers or symbols.

---

**DATA STORAGE**

**DATA TRANSFER**

**DATA PROCESSING**

**DATA RETENTION**

**DATA DESTRUCTION**

---

**Key elements to ensure quality and cleanliness of the data**

- Is data being collected the same way each time?
- Does the data collected align with the indicator definitions?
- Does the data make sense according to what is known about the program?
- Where applicable, is data broken down in meaningful ways?
How will you take the data you have collected and turn it into something meaningful? Data on its own doesn’t mean anything without some degree of analysis. To understand your data we start with two questions:

1. **What question** do you want to answer through your analysis?
2. **What analysis technique** should be used to answer this question?

Note that sometimes you’ll have to try a number of techniques to answer your question. The act of running different analyses on your data can yield information you may not have been aware of so flexibility is important!

Data analysis can be used to understand or answer some of the following:
- Did activities take place? Why/why not?
- Did the activity/output/outcome exceed or not meet a target? Why?
- Change over time in intended outcomes
- Direction of change? Did it increase? Decrease?
- What unexpected events took place that affected (positively or negatively) program activities, outputs, and/or outcomes?

A variety of methods can be used to conduct the analysis to understand the above questions. There are different processes for analyzing qualitative and quantitative data. We will focus primarily on analyzing quantitative data.

### Qualitative Data Analysis

At the most basic level, qualitative data from interviews, survey, or other non-numeric information, is processed, recorded, and then reduced into manageable groups of topics to be assessed for patterns or themes. Computer software is available to help you analyze trends and themes in your qualitative data.

### Quantitative Data Analysis

Quantitative data can be analyzed for both descriptive and inferential statistics. **Descriptive statistics** are used to describe the general characteristics of the data. You can look at:
- Frequency (mode)
- Counts
- Averages (mean)
- Percentages

One way to gauge program progress in real time is to create a run chart for your most important activities that are tracked over time. Run charts are line graphs of data plotted over time, like the number of people screened for hypertension every quarter or the percent of adults diagnosed with diabetes each year as in the example below.

![Run Chart Example](chart.png)
Conducting data analysis helps you to identify patterns, trends and outliers. Different means of doing this may include tabulating, cross-tabulating, aggregating or disaggregating data. Depending on what type of analysis you did you’ll need to think about the best way to visualize it. Charts such as the ones below can also be used to analyze and visualize your data. More details about effective data visualization can be found in the Data Communication section.

These different types and methods of analyses can often be completed in Microsoft Excel or other similar tools.\textsuperscript{22}

**Types of data analysis**

**DISTRIBUTION**
These charts help you analyze a single variable and its trends.

- Histogram chart
- Scatter chart

**RELATIONSHIP**
These charts analyze single or multiple variables, identifying what makes up the whole or total proportion.

- Bubble chart
- Scatter chart

**COMPARISON**
These types of charts analyze data between different (related) categories. These are different from relationship charts in that these categories don’t necessarily impact one another, but are related. For example, analyzing screening data from different locations.

- Column chart
- Bar chart
- Line chart
- Radar chart

**COMPOSITION**
These charts analyze single or multiple variables, identifying what makes up the whole or total proportion.

- Pie chart
- Stacked column chart
- Stacked area chart
- Waterfall charts

\textit{Inferential statistics} generally study a sample of the same data, helping us to make generalizations about the population. Types of analysis may include statistical significance tests to identify the likelihood of a relationship in the data being random or being meaningfully attributed to a key factor in your data set. This requires more mathematical manipulation of the data and is not always applicable to the kind of data you have collected.

Regardless of what type of analysis you conduct, a key follow-up to the analysis is the communication of the results. Re-visit the question you set out to answer at the beginning of your analysis. What is the best way to tell your data story now that you have collected and analyzed your data?
Once you have analyzed your data and have come to a conclusion about what your data is telling you, the next step is to identify the best approach to communicate this information to the most relevant audience(s).

Communicating your results can be as simple as reporting numbers in an Excel spreadsheet (see Appendix III for a data collection template) for a team to review or as elaborate as interactive infographics or dashboards. Determining what and how you communicate depends a lot on your audience.

**Define your Audience**

One of the first steps in communicating your results is to identify your audience.* Your audience may be internal to your organization, such as a leadership team, or it may be external, such as a funder or conference audience. It is also important to consider the level of expertise needed to understand your results – will your audience be a group of scientists who need to know the detailed methodology you used to attain your results? Or are you sharing an overview of the results to an advisory board who need to quickly and simply understand your findings? It is also important to define the purpose of why you are communicating the information to the audiences, whether it is for decision making, analytical, or other reasons.

*Note: the type of audience may also inform what kind of analysis you conduct, so analysis and defining the audience may take place together.

**Tell your Story with the Right Visuals**

Once you've defined your audience you can now start putting together a story about your results. Good stories are compelling, persuasive, and engaging. By combining your data with the right visuals and the right narrative, you can influence decision-making and elicit action from your audience.

"People hear statistics, but they feel stories."  

**TIPS FOR AN EFFECTIVE DATA STORY**

- **RELEVANCE** Identify what matters to your audience. "The best stories speak to people"
- **GOOD DATA** Reliable, truthful, transparent
- **CLEAR NARRATIVE** Beginning (introduction), middle, and end (call to action). Use plain language.
- **INTENTIONAL VISUALS** Help your audience easily understand what the data means

**REMEMBER**

"Visualization is merely a process. What we actually do when we make a good chart is get at some truth and move people to feel it—to see what couldn’t be seen before. To change minds. To cause action."
GUIDELINES FOR DEVELOPING VISUAL WAYS TO TELL YOUR STORY

There are many ways to tell your story and show your results – whether in tables and charts, creative infographics, diagrams, PowerPoint presentations, or other visual means. Data visualization is “the representation and presentation of data to facilitate understanding.” Here are some easy guidelines to follow as you develop visual ways to tell your story:

**Trustworthy Design**
- visualize missing data
- have a consistent scale
- bar chart axes should include zero
- describe where the data is from

**Right Colors**
- primary colors
- don’t use too many
- remember that color has meaning
- be consistent
- color can tell a story (e.g. green means ‘good’ or positive)

**Readable Text**
- use labels to clarify not clutter
- use readable fonts

**Be Simple**
- think about the order in your visuals (by quarter? By largest to smallest?)
- which design elements support the visualization and which ones distract
- the impulse is to include everything you know – think simply!

Impact measurement and evaluation are critical steps to understand the results of any activity. This guidebook provides a framework in which to organize your activities, identify gaps, and measure results. The Access to Health framework encourages program leaders to focus efforts on three key areas that are important to health impact: health systems, health interventions (therapeutic areas), and patients. The framework, evaluation plans, and key indicators are important tools for program leaders and managers to implement in order to gauge effectiveness, make valuable changes to a program's direction, ascertain a program's ultimate impact and quality, and guide decisions about future program design, implementation, and scale-up.

**ADDITIONAL RESOURCES**

**MEASURE Evaluation**

**About**

MEASURE Evaluation is a USAID funded project to strengthen health information settings in low-resource settings through:

1. Strengthened collection, analysis, and use of routine health data
2. Improved country-level capacity of manage health information systems
3. Methods, tools, and approaches improved and applied to address health information challenges and gaps
4. Increase capacity for rigorous evaluation

**What**

MEASURE Evaluation hosts a number of resources and toolkits to monitoring and evaluation for impact measurement.

**Where**

https://www.measureevaluation.org/

**The Social Entrepreneurship Accelerator at Duke (SEAD)**

**About**

The Social Entrepreneurship Accelerator at Duke (SEAD) at the Evidence Lab at Duke developed an evaluation toolkit to help social enterprises in healthcare evaluate their services, products and/or technologies.

**What**

SEAD Evaluation Toolkit

**Where**

https://sites.globalhealth.duke.edu/evidencelab/resources/tools/?_ga=2.11272820.1985709727.161928188-2111057935.1600457160

**Global Health e-Learning Center**

**About**

Developed by USAID’s Bureau of Global Health, the Global Health eLearning Center is designed to provide technical and programmatic global health information

**What**

Monitoring and Evaluation Courses

**Where**

https://www.globalhealthlearning.org/program/monitoring-and-evaluation

**Community Tool Box**

**About**

Guidance for developing a plan for assessing local needs and resources

**What**

Needs assessment tool

**Where**


**NHS Foundation**

**About**

Guidance for developing driver diagrams, illustrating a theory of change

**What**

Program design and strategy support

**Where**

https://qi.eift.nhs.uk/resource/driver-diagrams/

**Institute for Healthcare Improvement and HarvardX**

**About**

Practical Improvement Science in Health Care: A Roadmap for Getting Results

**What**

Online course focused on implementing improvement concepts for health

**Where**


DIGITAL LIBRARY

Access all downloadable templates for this guidebook at innovationsinhealthcare.org/access-to-health.
APPENDIX I

SAMPLE: structure, process, outcome & indicator worksheet
Download this template at innovationsinhealthcare.org/access-to-health

<table>
<thead>
<tr>
<th>ORGANIZATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOMAINS OF KEY ACTIVITIES (HEALTH SYSTEM, HEALTH/ THERAPEUTIC AREA, PATIENT EXPERIENCE):</td>
</tr>
<tr>
<td>IMPACT GOAL:</td>
</tr>
<tr>
<td>PLANNED ACTIVITIES</td>
</tr>
<tr>
<td>PROCESSES: Activities or interventions conducted to achieve goal</td>
</tr>
<tr>
<td>ACTIVITIES</td>
</tr>
<tr>
<td>INTENDED RESULTS</td>
</tr>
<tr>
<td>OUTCOMES: Desired results, changes</td>
</tr>
<tr>
<td>SMART INDICATORS</td>
</tr>
<tr>
<td>ASSUMPTIONS + EXTERNAL FACTORS</td>
</tr>
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</table>

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<tr>
<td>ASSUMPTIONS + EXTERNAL FACTORS</td>
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# APPENDIX II

## EVALUATION PLAN TEMPLATE

Download this template at [innovationsinhealthcare.org/access-to-health](http://innovationsinhealthcare.org/access-to-health)

### FRAMEWORK DOMAIN (primary activities):

#### IMPACT GOAL:

**DOMAIN:** Health System Context - Delivery Capacity

**IMPACT GOAL:** Enhance capacity for early breast cancer detection and referral to diagnosis in Kenya by training 1,000 community healthcare workers to identify early signs and symptoms of breast cancer during routine community screenings.

#### STRUCTURES: Resources to accomplish activities

<table>
<thead>
<tr>
<th>Resources</th>
<th>SMART Indicators</th>
<th>Data source</th>
<th>Reference Point / Baseline Data</th>
<th>Target Value</th>
<th>Cost of data collection</th>
<th>Unit of measurement and disaggregation (stratification)</th>
<th>Data Gathering Frequency &amp; Time Frame</th>
<th>Data Use (audience, reporting, feedback, decision-making)</th>
<th>Expertise + Responsibility for data collection and analysis (novice, competent, expert)</th>
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<tbody>
<tr>
<td>Community health workers</td>
<td>Number of community health workers to be targeted for participation</td>
<td>County database of community health workers</td>
<td>10,000 CHWs in Kenya</td>
<td>1,000</td>
<td>Number Disaggregation by location, gender</td>
<td>One time et outset of program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training materials</td>
<td>Number of training booklets required</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Training location</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training instructors</td>
<td>Number of instructors</td>
<td>Organizational database of instructors</td>
<td>10</td>
<td>Number Disaggregation by location, gender</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### PROCESSES: Activities or interventions conducted to achieve goal

<table>
<thead>
<tr>
<th>Activities</th>
<th>SMART Indicators</th>
<th>Data source</th>
<th>Reference Point / Baseline Data</th>
<th>Target Value</th>
<th>Cost of data collection</th>
<th>Unit of measurement and disaggregation (stratification)</th>
<th>Data Gathering Frequency &amp; Time Frame</th>
<th>Data Use (audience, reporting, feedback, decision-making)</th>
<th>Expertise + Responsibility for data collection and analysis (novice, competent, expert)</th>
</tr>
</thead>
</table>

#### OUTCOMES: Desired results, changes

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>SMART Indicators</th>
<th>Data source</th>
<th>Reference Point / Baseline Data</th>
<th>Target Value</th>
<th>Cost of data collection</th>
<th>Unit of measurement and disaggregation (stratification)</th>
<th>Data Gathering Frequency &amp; Time Frame</th>
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## APPENDIX III

### DATA COLLECTION PLAN TEMPLATE

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<table>
<thead>
<tr>
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<tbody>
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<td>Organization</td>
<td>Output</td>
<td>Outcome</td>
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<td>Numerator definition (if value is percentage)</td>
<td>Denominator definition (if value is percentage)</td>
<td>Type (Number, Percentage)</td>
<td>Data</td>
<td>Numerator</td>
<td>Denominator</td>
<td>Target</td>
<td>Time period of target</td>
<td>Program target</td>
</tr>
<tr>
<td>Innovations in Healthcare</td>
<td>Output</td>
<td>Number of individuals participating in evaluation training</td>
<td>20</td>
<td>25</td>
<td>unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovations in Healthcare</td>
<td>Outcome</td>
<td>Referral rate from individuals participating in training</td>
<td>Number of individuals who have referred others to our training program</td>
<td>50%</td>
<td>10</td>
<td>20</td>
<td>75%</td>
<td>programmatic</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Indicate any special notes (e.g., only measured once, if we should use reduced number as we increase).
REFERENCES

2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1113037/
15. https://www.g2.com/articles/qualitative-vs-quantitative-data#:~:text=What%20is%20the%20difference%20between%20traits%20and%20characteristics.
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INTRODUCTION:

- CAUSAL PATHWAY | “A depiction, in a schematic, for example, of the direct and indirect linkages between interventions and outcomes.” (Source: http://htaglossary.net/causal-pathway)


- LONG-TERM OUTCOME | Long-term, meaningful changes in social, environmental, institutional, or cultural behaviors, at least partially attributed to a program or intervention. Also termed “Impact” (see definition).

- MEDIUM-TERM OUTCOME | Intermediate changes to behavior, practice, or policies, attributed to a program or intervention.

- NEEDS ASSESSMENT | A type of evaluation that evaluates the topic-specific needs and gaps in a community to identify opportunities for improvement and inform program goals, objectives, and overall design.

- PROCESS EVALUATION | A type of evaluation that assesses the extent to which a program has been implemented as planned.

- OUTCOME | Outcomes are the changes that a program or intervention targets, such as changes in knowledge, skills, behaviors, or policies.

- OUTCOMES EVALUATION | A type of evaluation that measures the amount and direction of a change resulting from a program (like a change in health outcomes or knowledge), whether a change met program targets, and may compare the change to a control or comparison group (that does not receive the program). (Source: https://www.measureevaluation.org/resources/publications/fs-15-158/at_download/document)

- SHORT-TERM OUTCOME | Near-immediate changes to skills, awareness, knowledge, or attitudes occurring as a result of a program or intervention.

ACCESS TO HEALTH IMPACT MEASUREMENT FRAMEWORK:

- ACCESS TO HEALTH IMPACT MEASUREMENT FRAMEWORK | A roadmap to enable greater outcomes, impact measurement, and reporting for global health programs.

- HEALTH ACTIVITY OR THERAPEUTIC AREA (FRAMEWORK DOMAIN) | A key domain of the Access to Health framework where identification and measurement of a specific community or individual health improvement activity occurs.

- HEALTH SYSTEM CONTEXT (FRAMEWORK DOMAIN) | A key domain of the Access to Health framework that assists program teams in identifying critical factors of the local health system that need to be addressed for program success and sustainability.

- OUTCOME | The desired changes that a program or intervention targets, such as changes in knowledge, skills, behaviors, or policies; may be a change in health status for an individual or population.

- PATIENT EXPERIENCE (FRAMEWORK DOMAIN) | A key domain of the Access to Health framework that addresses the contextual and program-related factors that impact an individual’s experience with and within the health system.

- PROCESS | Actual care delivered to patients or specific activities or interventions that lead to desired outcomes.

- STRUCTURE | Physical and organizational characteristics where health occurs; also described as resources required to conduct health-related activities.

IMPACT MEASUREMENT PLAN DEVELOPMENT (STEPS 1-3):

- ASSUMPTION | Expectations of how a program is intended to work.

- EXTERNAL FACTOR | Circumstances beyond your control that could impact a program.

- IMPACT GOALS | Long-term desired change occurring from the implementation of a program or intervention.

- INDICATOR | A marker of accomplishments or progress toward achieving a specific output or outcome.

- LONG-TERM OUTCOME | Long-term, meaningful changes in social, environmental, institutional, or cultural behaviors, at least partially attributed to a program or intervention. Also termed “Impact” (see definition).

- MEDIUM-TERM OUTCOME | Intermediate changes to behavior, practice, or policies, attributed to a program or intervention.

- OUTCOME | Outcomes are the changes that a program or intervention targets, such as changes in knowledge, skills, behaviors, or policies.

- OUTPUT | Direct results or products of an activity, typically defined by quality or quantity, such as participants reached or trainings delivered, etc.

- PROCESS | Activity or intervention conducted to achieve a goal or outcome.

- REFERENCE POINT | Criteria or data that enables a comparison from the outset of the program.

- SHORT-TERM OUTCOME | Near-immediate changes to skills, awareness, knowledge, or attitudes occurring as a result of a program or intervention.

- STRUCTURE | Physical and organizational characteristics where health occurs; also described as resources required to conduct program activities, such as personnel, materials, physical location, etc.

- S.M.A.R.T. | An acronym and framework used to identify quality indicators (also used for goal-setting): Specific, Measureable, Achievable, Relevant, Time-Bound.
DATA COLLECTION, ANALYSIS, AND COMMUNICATION:

- **BASELINE DATA** | Data collected at the very beginning of the project.
- **COMPARISON (CHART)** | A type of chart analyzing data between different (related) categories.
- **COMPOSITION (CHART)** | A type of chart analyzing single or multiple variables, identifying what makes up the whole or total proportion.
- **DATA** | Factual information (such as measurement or statistics) used as a basis for reasoning, discussion, or calculation (source: https://www.merriam-webster.com/dictionary/data)
- **DESCRIPTIVE STATISTICS** | used to describe general characteristics of data, often includes frequencies, counts, averages, percentages.
- **DISTRIBUTION (CHART)** | A type of chart that can help you analyze a single variable and its trends.
- **ENDLINE DATA** | Data collected at end of program.
- **INFERENTIAL STATISTICS** | statistical tests for significance in the data.
- **INFORMED CONSENT** | The process of obtaining approval from individuals to share and use their personal data.
- **PERSONALLY IDENTIFIABLE HEALTH INFORMATION (PII)** | Individual-level health information that contains personal identifiers that allow the identification of patients or other beneficiaries.
- **PRIMARY DATA** | Data collected directly from the data source.
- **PROCESS DATA** | Data collected throughout program.
- **PSEUDO-ANONYMIZATION** | A process of replacing direct identifiers (e.g. name, phone number, email) in a dataset with pseudonyms (e.g. nicknames, numbers, or other codes).
- **QUALITATIVE DATA** | Descriptive information that can be categorized in traits and characteristics.
- **QUANTITATIVE DATA** | Information that is expressed, counted and measured.
- **RELATIONSHIP (CHART)** | A type of chart that can analyze two variables and how they relate to and impact one another.
- **SECONDARY DATA** | Data collected in the past by someone else.