



# SUPPLY CHAIN DATA USE THEORY OF CHANGE AND THEORY OF ACTION:

A CONCEPTUAL FRAMEWORK FOR PROGRAM AND SUPPLY CHAIN MANAGERS



AUGUST 2020

---

The Supply Chain Data Use Theory of Change and Theory of Action: A Conceptual Framework for Program and Supply Chain Managers is made possible by the generous support of Gavi, the Vaccine Alliance.

This Conceptual Framework was developed with technical support and input from a number of partners, including government stakeholders in Tanzania and Mozambique, the Bill & Melinda Gates Foundation, JSI Research & Training Institute, Inc. (JSI), inSupply Health, The Clinton Health Access Initiative, Inc. (CHAI), VillageReach, Cooper/Smith and Sonder Collective.

## PURPOSE

### The Supply Chain Data Use Theory of Change and Theory of Action (TOC/TOA): A Conceptual Framework for Program and Supply Chain Managers

is a conceptual, planning, and prioritization resource to instill, scale, and sustain data use at all levels of a health supply chain. It serves as a common framework for supply chain data use stakeholders to use and refine to best meet their context specific needs.

The framework includes:

- The rationale for using the TOC/TOA to improve supply chain data use.
- Illustrative examples of ways the TOC/TOA can be used by program and supply chain managers and stakeholders to improve supply chain data use at all levels.
- A walkthrough of the main components of the TOC/TOA.

In addition to this Conceptual Framework, the partners have developed a slide deck that provides a high level overview of the Supply Chain Data Use TOC/TOA. This resource can be accessed via the TechNet Resource Library at: <https://www.technet-21.org/en/library>.

## INTRODUCTION

Throughout low and middle income countries, there has been significant focus and investment on strengthening supply chain information systems with the goal of improving the performance of health supply chains. These investments have primarily

focused on technology solutions including electronic information systems which have significantly enhanced the visibility of data. In addition to these investments, there is an equally important, but often overlooked, need to ensure that data is used for operational, management, and strategic supply chain decisions and actions at all levels of the system. **Focusing on both data visibility and data use in the supply chain can dramatically improve supply chain performance, ensuring supply chain responsiveness to client needs and helping countries achieve their health goals.**

Recognizing the important aspect of supply chain data use, global partners JSI Research & Training Institute, Inc. (JSI), inSupply Health, VillageReach, the Clinton Health Access Initiative, Inc. (CHAI), the Bill & Melinda Gates Foundation (BMGF), Cooper/Smith, and Sonder Collective set out to better understand and articulate what it takes to introduce and embed data use at all levels of a system. Collaborating and co-designing with in-country stakeholders from Tanzania and Mozambique, the partners supported a series of activities that culminated in this Supply Chain Data Use TOC/TOA.

The TOC/TOA provides program and supply chain managers and partners at the national and subnational levels with a conceptual, planning, and prioritization resource for **instilling** and **sustaining** supply chain data use. It offers a visual pathway that includes a set of tools, processes, and interventions to **instill**, **scale**, and **sustain** data use at all

levels of a supply chain. In turn, this **sustained** culture of data use will drive continuous supply chain performance and ultimately improve equitable access to health supplies including vaccines.

## OVERVIEW: SUPPLY CHAIN DATA USE THEORY OF CHANGE/THEORY OF ACTION

The Supply Chain Data Use TOC/TOA outlines the visual pathway to **instill**, **scale**, and **sustain** data use at all levels of a supply chain to drive continuous supply chain performance. Users can use the TOC/TOA to:

1. **Articulate the end goal:** This is the ideal end state of data use that the user wants to achieve.
2. **Identify the problems or unmet needs:** these are the challenges that must be addressed to achieve the end goal.
3. **Determine the preconditions that must be met to achieve that goal:** these are the elements that must be in place to help achieve the end goal.
4. **Identify the actions that should be taken to help meet those preconditions:** these are the actions or activities that must happen to put these pre-conditions in place.

As part of the process for developing the TOC/TOA, the partners reviewed existing data use Theories of Change, as well as a review of data user research, and promising data use practices. The reviews identified shortcomings including insufficient

Figure 1. Definitions: Theory of Change and Theory of Action

<b>Theory of Change</b>	<b>What is it?</b> Describes <b>outcomes and pre-conditions through which change comes</b> about for individuals, groups or communities.	<b>Questions it answers:</b> <b>What</b> is the change? <b>Why</b> is the change occurring?	<b>Characteristics:</b> Dynamic Evolving Theoretical
<b>Theory of Action</b>	<b>What is it?</b> Articulates the <b>mechanisms through which the activities are being delivered</b> , e.g., through which type of actors and following what kind of processes.	<b>Questions it answers:</b> <b>How</b> does the change occur? <b>Who</b> are the actors involved?	<b>Characteristics:</b> Dynamic Evolving Theoretical

**Figure 2. Stages of interventions that aim to increase data use**

Stages	Definition
<b>INSTILL</b>	The actions or interventions that support the foundation of a particular enabling environment in a specific jurisdiction and sub-group of people.
<b>SCALE</b>	The actions or interventions to expand a data-use enabling environment to new levels of the health system, new users or new geographies.
<b>SUSTAIN</b>	The actions or interventions that focus on macro, system-level changes that help permanently embed a data use culture across multiple levels of the health system, multiple geographies and multiple teams.

consideration of requirements for **scaling** and **sustaining** data use interventions, not enough attention paid to the end users, and a lack of sufficient detail to be operational.

Building from and responding to these findings, the Supply Chain Data Use TOC/TOA:

- Articulates both “What change we want to see” (the TOC) as well as an understanding of “HOW to get there” (the TOA). **The Theory of Action** component of the TOC/TOA is unique and helps provide practical actions to achieve change that are often missing in a theoretical TOC (figure 1).
- Focuses on a data use pathway that is **specific to the supply chain context**.
- Articulates a process as well as specific actions to **instill** a data use culture and goes a step further to **scale and sustain** this data use culture within the supply chain context (figure 2).

- Applies a **human centered approach** to understand the challenges and needs of the users throughout the supply chain and to ensure the TOC/TOA is practical, grounded, and responsive to the needs of users and country programs.

This visual pathway consists of two connected frameworks – The Supply Chain Data Use TOC/TOA. They are meant to serve as a conceptual, planning and prioritization resource for national and subnational supply chain managers and partners for **instilling** and **sustaining** supply chain data use. The TOC/TOA can be applied in several ways (figure 3):

- Assessment, evaluation, and routine monitoring of supply chain data use interventions.
- Program planning and design of supply chain data use interventions.

- Raising awareness and advocacy for funding data use.

This TOC/TOA is meant to serve as a common framework which all supply chain data use stakeholders can use and refine to best meet context-specific needs. However, given there are still a number of assumptions and unknowns, the intention is for this framework to function as a living document that the global community contributes to and enhances over time.

## USING THE SUPPLY CHAIN DATA USE TOC/TOA TO IMPROVE COUNTRY AND SUBNATIONAL SUPPLY CHAIN DATA USE

The TOC/TOA provides national and subnational stakeholders with a conceptual, planning and prioritization resource to support supply chain data use. It offers a visual pathway, including the activities needed to **instill, scale, and sustain** data use at all levels of a supply chain to drive continuous supply chain performance.

While the TOC/TOA is intended to be adapted to country or program contexts as well as levels of the supply chain, the following provides illustrative examples of ways the TOC/TOA can be used by supply chain and program managers and partners.

**Assessment, evaluation, and routine monitoring:** The Supply Chain Data Use TOC/TOA can help program and supply chain managers assess gaps and opportunities and monitor progress in **instilling, scaling, and**

**Figure 3. How To: Use cases for the TOA/TOC**

### ASSESSMENT, EVALUATION, AND ROUTINE MONITORING

The Supply Chain Data Use TOC/TOA can be used to help program and supply chain managers understand gaps and opportunities for instilling, scaling and sustaining data use to drive supply chain performance.

### PROGRAM PLANNING AND DESIGN

The Supply Chain Data Use TOC/TOA can be used at the design/planning stage to help ensure supply chain data use interventions take into account key actions to instill, scale and sustain a data use culture grounded in data user needs.

### AWARENESS RAISING AND ADVOCACY FOR FUNDING DATA USE

The Supply Chain Data Use TOC/TOA can be a powerful awareness and advocacy tool. It can help make a compelling case for a robust data use approach within supply chains that can be used to change mindsets, advocate for resources or gain buy-in.



## Figure 4. Supply Chain Data Use TOC/TOA use case type: Assessment

**Context:** In advance of a Gavi Joint Appraisal, the national EPI Manager wants to understand how much progress has been made on the country's immunization supply chain data use initiatives including identifying gaps in existing supply chain data use strategies and opportunities for new strategies where none exist.

**Applying the Supply Chain Data Use TOC/TOA:** The TOC/TOA can identify and map out all the challenges and data use interventions and process changes that have been implemented in the country. After consulting with relevant members of their team (e.g., from the national logistics working group), the EPI Manager can document the user data needs and the data use interventions implemented at different levels of the supply chain (and in various geographies, if required). The EPI Program can then apply qualitative techniques like traffic lights (● = incomplete; ● = delayed; ● = on track) or Harvey Balls (● = complete; ◐ = partial; ○ = incomplete) to assess and denote the extent to which existing data use strategies address user needs. In doing so, stakeholders can determine which interventions are incomplete or off track and therefore require attention.

**Outcome:** Applying and modifying the TOC/TOA to assess progress help to review current investments, and also assess whether these investments need to be reexamined.

**sustaining** data use to drive supply chain performance (figure 4). The TOC/TOA can be used to:

- Comprehensively review supply chain data use strategies according to the preconditions and pathways that are required to **instill, scale, and sustain** a data use culture in supply chains.
- Identify gaps and pain points in existing supply chain data use initiatives or opportunities for new strategies where none exist.
- Understand where along the pathway (from **instill to sustain**) a supply chain may be in terms of data use and what it takes to achieve a **sustained** data use culture within the supply chain.
- Rigorously monitor and evaluate supply chain data use strategies. The framework can help inform the indicators developed in the design phase and support continuous monitoring of interventions allowing for adaptive management and iteration.

**Program planning and design:** The TOC/TOA can also be used at the **design/planning stage** to help ensure supply chain data use interventions take into account key actions to **instill, scale, and sustain** a data use culture and that they are grounded by data user needs. In particular, at the planning/design stage, the TOC/TOA can be used to (figure 5):

- Map out a robust strategy and

interventions that reflect the preconditions and pathways that are required to **instill, scale, and sustain** a data use culture in supply chains.

- Guide the design of a subset of data use interventions (e.g., data use teams);
- Strengthen the supply chain data use component of an annual workplan.

**Awareness raising and advocacy for funding supply chain data use:** The Supply Chain Data Use TOC/TOA can be a powerful awareness and advocacy tool (figure 6). It can make a compelling case for a robust data use approach within supply chains that can be used to change mindsets, advocate for resources, and gain buy-in. For example, the TOC/TOA can:

- Improve partner coordination and alignment of investments by providing all stakeholders (including private sector) with an overall goal, agreement on the pathways to achieve the goal, and an opportunity to buy-in or support.
- Inform and justify funding, including supporting funding requests, alignment and coordination of partner investments, etc.

### COMPONENTS OF THE SUPPLY CHAIN DATA USE TOC/TOA

The Supply Chain Data Use TOC/TOA is ONE connected framework and should be used in this way. The user-centered TOC outlines the causal pathways and preconditions

for **instilling, scaling, and sustaining** data use at all levels of a supply chain. The TOA helps articulate what is needed to operationalize the TOC. Together, they offer a pathway that demonstrates what change is expected and how change will happen.

The narrative below walks through the TOC/TOA framework starting with an overview of the TOC (figure 7) and then showing how the TOA (figure 12) supports and provides the process to identify the actions needed to achieve the TOC outcomes (the complete TOC/TOA is included in Appendix B).

As we walk through the TOC/TOA, it is important to remember that it is intended to be adapted to reflect the country context, supply chain data use goals, and where a supply chain program may be along the data use pathway. For example, some programs may be just embarking on a data use strategy. In this case, the program managers would primarily focus on the **"instill"** components while anticipating how the interventions will support the progression from **instill to scale and sustain**. However, other programs may be further along with some proven practices in using data as part of their supply chain program. In this situation, the program managers would focus more on accelerating strategies to **"scale and sustain"** the data use strategies within their supply chains. See Appendix A for more tips on adapting the TOC/TOA for use at the national and subnational level.



## Figure 5. TOC/TOA use case type: Immunization program planning

**Context:** The EPI Program is undertaking their annual workplanning activity. They have invited key stakeholders and partners to co-create a supply chain data use strategy to support vaccine supply chain performance goals.

**Applying the Supply Chain Data Use TOC/TOA,** stakeholders can:

- 1) Collectively agree on: (i) a shared goal of supply chain data use that will contribute to improvements in the vaccine supply chain performance and (ii) the main data users of the vaccine supply chain.
- 2) Identify the problems and needs of these users, according to the elements required, to ensure (i) a comprehensive enabling environment that supports a data use culture and (ii) an empowered and motivated workforce to use data.
- 3) Identify interventions (guided by the user needs above) that will comprehensively support the pathway from **instilled** data use to a culture of data use that is **scaled** and **sustained**.
- 4) Develop an annual workplan that includes specific sub-activities, persons responsible, and timeframes for each activity.

**Outcome:** The TOC/TOA provides a starting point to identify interventions that can **instill** and **sustain** a data use culture for the supply chain. This participatory process can help stakeholders who know the context and systems best to prioritize the right interventions to include in an annual work plan.



## Figure 6. TOC/TOA use case type: Advocacy

**Context:** Senior members from a small foundation have recently visited country X and are looking to fund data use interventions. Ministry of Health (MOH) officials would like to prepare a proposal to respond to the foundation's interest in supply chain data use. The MOH uses the TOC/TOA as the theoretical framework for their proposal submission to this foundation.

**Applying the Supply Chain Data Use TOC/TOA:** The MOH proposal team can convene and use the TOC/TOA to frame the proposal. In particular, it can be used to:

- 1) Detail all the unmet data needs of specific users (e.g., regional warehouse manager, national cold chain technician, etc.) at different levels of their supply chain.
- 2) Describe the proposed data use activities to **instill** data use, the process for implementation, and the resources and timeframe required to achieve them.
- 3) Outline how the proposed activities will be **scaled** and **sustained** by the country once the donor grant has come to an end.

**Outcome:** Using the user-focused TOC/TOA to articulate specific user needs and how proposed activities will support these users gives donors greater visibility into how their investments can empower supply chain personnel.

## SUPPLY CHAIN DATA USE THEORY OF CHANGE

We begin with a description of the high-level goal to which supply chain data use is expected to contribute. We then work backwards through the identified outcomes to describe a series of preconditions and actions that are necessary to achieve these outcomes.

### Supply Chain Data Use Goal and Primary Outcome

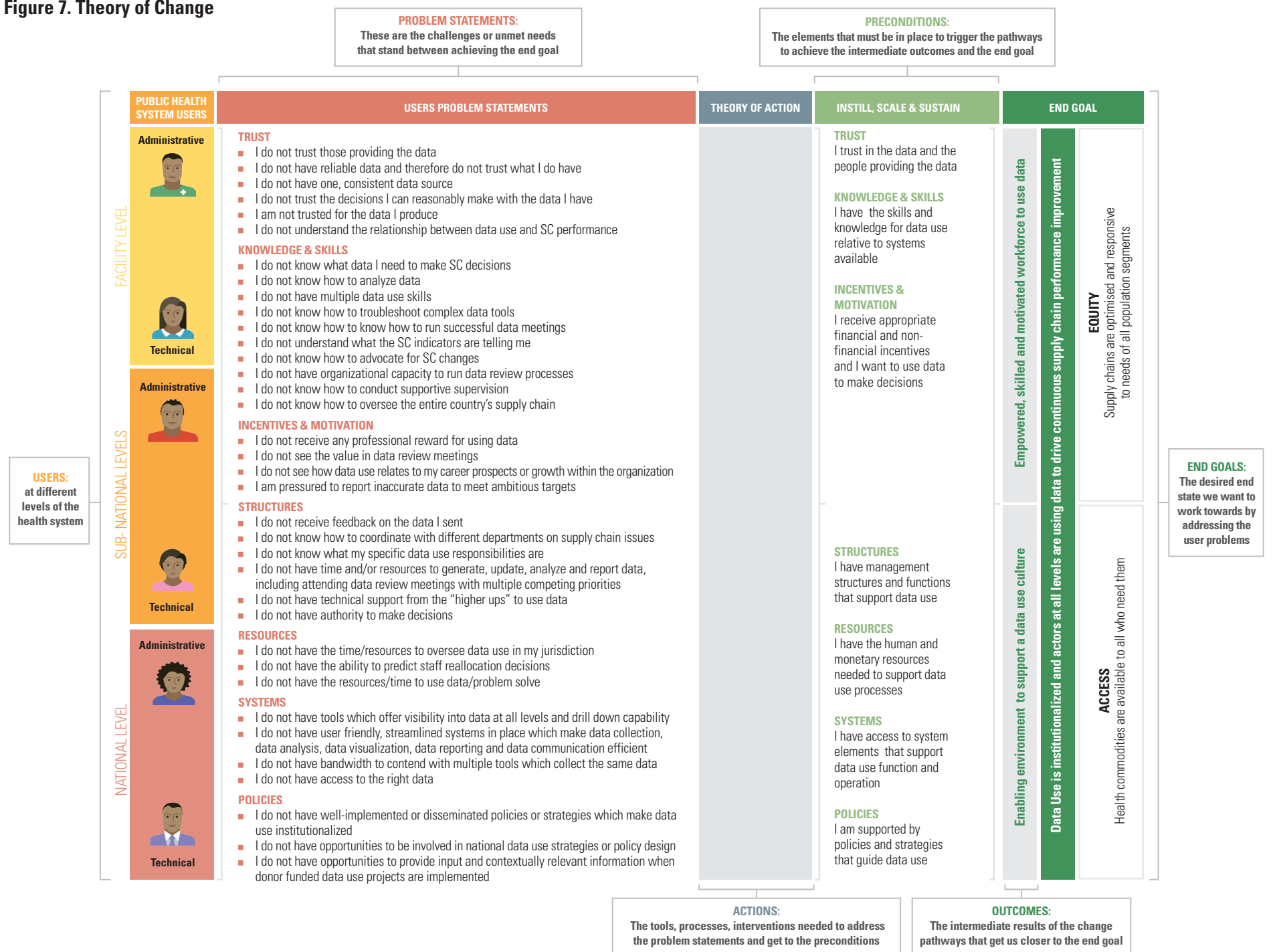
A theory of change for supply chain data use should recognize and articulate how data use ultimately contributes to a broader

supply chain goal. Supply chain managers and partners may want to identify a high-level goal that reflects the context within which they are working. For example, an EPI manager may want to adopt the national EPI goal. In this illustrative TOC, **the high-level goals are 1) Equity: supply chains are optimized and responsive to the needs of all population segments and 2) Access: health commodities are available to all who need them.**

These high-level goals sit above the line of accountability since improved data use is one of many possible drivers of equity and access of medicines.

To realize this goal, the TOC includes a **primary outcome: Data use is institutionalized and actors at all levels use data to drive continuous supply chain performance.** This primary outcome emphasizes the importance of **scale (all levels)** and **sustainability.** The primary outcome is what supply chain stakeholders can hold themselves and their partners accountable for, indicating that the interventions, pathway, and actions articulated in the TOC can directly influence improved data use.

Figure 7. Theory of Change







## How To: Considerations when adapting the TOC/TOA

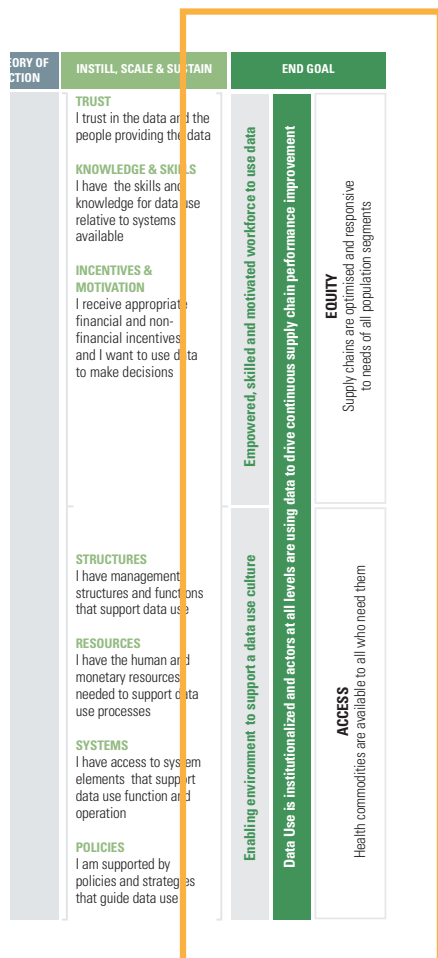
**Goals: Adapt the language of the TOC/TOA components to best fit your goal and objectives. (e.g., end goals in the TOC)**

### Intermediate Outcomes and Change Pathways

The TOC/TOA includes two intermediate outcomes required to achieve the primary outcome (figure 8):

- An **Empowered, skilled, and motivated workforce** to use data.
- An **Enabling environment** to support a data use culture for supply chains.

**Figure 8. Primary outcomes in the TOC**



Working backwards, the TOC outlines seven change pathways to ensure a comprehensive enabling environment to support the intermediate outcomes (a data use culture and an empowered and motivated workforce to use the data) (figure 9). For each change pathway, there is a precondition, or new state of being that must exist in order to achieve the desired outcome. Without addressing these preconditions, it is unlikely that effective data use in the supply chain will be **instilled, scaled, or sustained**. These preconditions work in synergy with each other, influencing and impacting one another, both positively and negatively, over time. For example, policies that support and guide data use provide a foundation for systems and structures, which direct the knowledge and skills that must be acquired by the workforce.

These preconditions ground the theory of action which focuses on how to achieve the change we are articulating. The change pathways are shown in figure 10.

### The “User” Perspective

Now we turn to the far left in the theory of change which lists an illustrative set of data users working at different levels of the supply chain representing both technical and administrative roles (figure 11). In general, technical users are personnel who

**Figure 9. Change pathways for data use in the TOC**



**Figure 10. Change pathways for data use definitions**

Preconditions	Definition
<b>TRUST</b>	Confidence and trust in the data flows and the people who are data providers, so one can see the value in using the best available data (even if it is not perfect) to improve data quality and to make decisions.
<b>KNOWLEDGE &amp; SKILLS</b>	All the competencies needed to facilitate data use, ranging from data collection, data analysis & visualization, data use, data reporting, data communication & data strategy development.
<b>INCENTIVES &amp; MOTIVATION</b>	Motivation, rewards and recognition one receives for using data in decision-making. This should go beyond financial rewards.
<b>STRUCTURES</b>	The reporting, administrative, and financial mechanisms in place that facilitate and promote data use.
<b>RESOURCES</b>	Human and financial resources that provide the means needed to follow through on data use processes.
<b>SYSTEMS</b>	The tools and processes for data reporting, analysis and communication that facilitate data use.
<b>POLICY</b>	International, national and subnational principles or policies that codify data use as a necessary strategy for achieving results.



**Figure 11. User problem statements in the TOC**

	PUBLIC HEALTH SYSTEM USERS	USERS PROBLEM STATEMENTS	THEORY OF ACTION	INSTILL, SCALE & SUSTAIN
FACILITY LEVEL	Administrative	<b>TRUST</b> <ul style="list-style-type: none"> <li>I do not trust those providing the data</li> <li>I do not have reliable data and therefore do not trust what I do have</li> <li>I do not have one, consistent data source</li> <li>I do not trust the decisions I can reasonably make with the data I have</li> <li>I am not trusted for the data I produce</li> <li>I do not understand the relationship between data use and SC performance</li> </ul> <b>KNOWLEDGE &amp; SKILLS</b> <ul style="list-style-type: none"> <li>I do not know what data I need to make SC decisions</li> <li>I do not know how to analyze data</li> <li>I do not have multiple data use skills</li> <li>I do not know how to troubleshoot complex data tools</li> <li>I do not know how to know how to run successful data meetings</li> <li>I do not understand what the SC indicators are telling me</li> <li>I do not know how to advocate for SC changes</li> <li>I do not have organizational capacity to run data review processes</li> <li>I do not know how to conduct supportive supervision</li> <li>I do not know how to oversee the entire country's supply chain</li> </ul>		<b>TRUST</b> <ul style="list-style-type: none"> <li>I trust in the data and the people providing the data</li> </ul> <b>KNOWLEDGE &amp; SKILLS</b> <ul style="list-style-type: none"> <li>I have the skills and knowledge for data use relative to systems available</li> </ul>
	Technical	<b>KNOWLEDGE &amp; SKILLS</b> <ul style="list-style-type: none"> <li>I do not know how to troubleshoot complex data tools</li> <li>I do not know how to know how to run successful data meetings</li> <li>I do not understand what the SC indicators are telling me</li> <li>I do not know how to advocate for SC changes</li> <li>I do not have organizational capacity to run data review processes</li> <li>I do not know how to conduct supportive supervision</li> <li>I do not know how to oversee the entire country's supply chain</li> </ul>		<b>KNOWLEDGE &amp; SKILLS</b> <ul style="list-style-type: none"> <li>I have the skills and knowledge for data use relative to systems available</li> </ul>
SUB-NATIONAL LEVELS	Administrative	<b>INCENTIVES &amp; MOTIVATION</b> <ul style="list-style-type: none"> <li>I do not receive any professional reward for using data</li> <li>I do not see the value in data review meetings</li> <li>I do not see how data use relates to my career prospects or growth within the organization</li> <li>I am pressured to report inaccurate data to meet ambitious targets</li> </ul>		<b>INCENTIVES &amp; MOTIVATION</b> <ul style="list-style-type: none"> <li>I receive appropriate financial and non-financial incentives and I want to use data to make decisions</li> </ul>
	Technical	<b>STRUCTURES</b> <ul style="list-style-type: none"> <li>I do not receive feedback on the data I sent</li> <li>I do not know how to coordinate with different departments on supply chain issues</li> <li>I do not know what my specific data use responsibilities are</li> <li>I do not have time and/or resources to generate, update, analyze and report data, including attending data review meetings with multiple competing priorities</li> <li>I do not have technical support from the "higher ups" to use data</li> <li>I do not have authority to make decisions</li> </ul>		<b>STRUCTURES</b> <ul style="list-style-type: none"> <li>I have management structures and functions that support data use</li> </ul>
NATIONAL LEVEL	Administrative	<b>RESOURCES</b> <ul style="list-style-type: none"> <li>I do not have the time/resources to oversee data use in my jurisdiction</li> <li>I do not have the ability to predict staff reallocation decisions</li> <li>I do not have the resources/time to use data/problem solve</li> </ul>		<b>RESOURCES</b> <ul style="list-style-type: none"> <li>I have the human and monetary resources needed to support data use processes</li> </ul>
	Technical	<b>SYSTEMS</b> <ul style="list-style-type: none"> <li>I do not have tools which offer visibility into data at all levels and drill down capability</li> <li>I do not have user friendly, streamlined systems in place which make data collection, data analysis, data visualization, data reporting and data communication efficient</li> <li>I do not have bandwidth to contend with multiple tools which collect the same data</li> <li>I do not have access to the right data</li> </ul> <b>POLICIES</b> <ul style="list-style-type: none"> <li>I do not have well-implemented or disseminated policies or strategies which make data use institutionalized</li> <li>I do not have opportunities to be involved in national data use strategies or policy design</li> <li>I do not have opportunities to provide input and contextually relevant information when donor funded data use projects are implemented</li> </ul>		<b>SYSTEMS</b> <ul style="list-style-type: none"> <li>I have access to system elements that support data use function and operation</li> </ul> <b>POLICIES</b> <ul style="list-style-type: none"> <li>I am supported by policies and strategies that guide data use</li> </ul>



## How To:

Considerations when adapting the TOC/TOA

**Problems and Needs: Identity the problem and need statements that most accurately reflect the needs of your context (e.g., problem statements in the TOC; I need statements in the TOA). Not all problem and need statements need to go into your TOC/TOA, if they are not relevant.**

## Supply Chain Data Use Theory of Action

The Theory of Action describes what is needed to activate and operationalize the TOC. It represents the actions that are required to address the problem statements and achieve each of the preconditions, intermediate outcomes, and final outcome. For each element identified in the TOC, the TOA deconstructs the problem statement for each user detailing "how" to address the problem. Similar to the TOC, it is important to look at the pathways from a user perspective and start from a place of understanding user needs.

Given how detailed the TOA is, we will only look at one element ("Knowledge & Skills") and the pathways and processes that it includes (the complete TOC/TOA is included in Appendix B) (figure 12).

- **I NEED statements:** Starting from the left column, we begin with the same users identified in the TOC. For each user, we convert the problem statement developed for the TOC to an "I NEED" statement. For example, within the "Knowledge & Skills" element, the problem statement in the TOC is "I do not know how to analyze data". In the TOA, this is converted to the following "I NEED" statement: "I need **data analysis skills** to ensure the insights gleaned are reliable". There are "I NEED" statements corresponding to every enabling environment element.
- **Processes, tools, and interventions to address user needs:** The users



## How To: Considerations when adapting the TOC/TOA

**Data users: Identify the data users whose needs you are trying to address through the theory of action and the interventions you are implementing (e.g., system users in the TOC/TOA).**

generate or review data related to supply chain or service delivery and drive decisions related to improving those processes. Administrative users are personnel who monitor supply chain or service delivery trends to drive budget requests and policy decisions within their jurisdiction.

By focusing on the individual users of the supply chain helps point a set of problem statements that map to the preconditions mentioned above. Acknowledging these **problem statements** from the user perspective helps ensure that the TOC reflects

and responds to the challenges of individual users throughout the supply chain. These statements are intentionally phrased as "I" statements to support this user-centered approach (*for example, a problem statement under the "Knowledge and Skills" element is: "I do not know how to analyze data"*).

The middle of the TOC represents the **actions** that are required to address the problem statements and achieve the preconditions, intermediate outcomes, and end goal. We turn to the TOA to identify the actions needed to achieve the TOC goals.

**Figure 12. Knowledge & Skills TOA**





## How To: Considerations when adapting the TOC/TOA

Identify the data use interventions tools and processes that you feel best address the needs in your context, whether you are already implementing them or plan to implement them (e.g., interventions, tools, and processes under the **INSTILL** and **SCALE** and **SUSTAIN** columns of the TOA).

(column 1) and their corresponding “I NEED” statements (column 2), guide the processes, tools, and interventions required to:

- **Instill** or put into place the foundation for supply chain data use (**column 3**).
- **Scale & Sustain** or institutionalize a culture of data use (**column 4**) (figure 13).

The processes, tools, and interventions identified may already exist or they can be new. Again, using the “Knowledge & Skills” element as an example, we see that the “I NEED” statement (“I need data analysis skills to ensure the insights gleaned are reliable”) informs the processes, tools, and interventions needed to (figure 14):

- **INSTILL** skills. For example, using the subnational perspective, we may need to ensure monitoring, evaluation, and data use are part of cadre and clinical training prior to entering the government’s workforce. This will help build and **instill** the “Knowledge & Skills” the subnational level needs for data analysis.
- **SCALE & SUSTAIN** skills. For example, it may help to establish continuous professional education opportunities for supply chain personnel so they can pursue training on latest best practices in data analysis.

We use the “Knowledge & Skills” element as an example of the pathways and processes included in the TOA. This same process would be followed for each of the seven change pathways for data use to help create the pre-conditions required to foster:

- An **Empowered, skilled, and motivated workforce** to use data.
- An **Enabling environment** to support a data use culture for supply chains.

In doing so, the TOA outlines “HOW” the TOC will be operationalized to achieve the intended outcome: **data use is institutionalized and supply chain actors at all levels are using data in an institutionalized manner to drive continuous supply chain performance.**

Figure 13. Processes, tools, and interventions to address user needs in the TOA

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b> <ul style="list-style-type: none"> <li>I need to know how to mentor, coach, question and give feedback to facility providers and/or CHWs related to data during our routine meetings</li> <li>I need to understand how the indicators I’m reporting contribute to the supply and safety of commodities at my facility</li> <li>I need the necessary skills on how to use data collection and reporting tools as a new employee</li> </ul>	<ul style="list-style-type: none"> <li>Capacity-building on how to provide two-way feedback between health system levels and ensure its adherence as part of routine reporting expectation at health facility level</li> <li>Indicator definition and indicator use in decision-making are part of continuous learning and supervision</li> <li>Special training and capacity building package for health facility in charges during orientation and on on-going basis</li> <li>Well established orientation course for every employee working in the supply chain management area to be taken before starting their role</li> </ul>	<ul style="list-style-type: none"> <li>Analytical/strategic thinking on using indicators to make decisions as part of pre-service training</li> <li>Guidelines which clearly stipulate expectations of data use skills in health facility-in-charge</li> <li>Embedded system of continuous mentorship and on-the-job training on data entry, data reporting and data analysis</li> </ul>
	<b>Technical Role</b>		
SUB-NATIONAL LEVELS	<b>Administrative Role</b> <ul style="list-style-type: none"> <li>I need to know what decisions are possible within the supply chain system I work in</li> <li>I need to know how to plan and facilitate a data review meeting</li> <li>I need technical support from higher authorities (e.g., regional/national) for supply chain data related issues</li> <li>I need capacity building in leadership and managerial skills to be able to coordinate different units/departments in matters pertaining to supply chain</li> <li>I need data analysis skills to ensure the insights gleaned are reliable</li> <li>I need general training on data and national data collection tools before I enter the workforce</li> <li>I need to be able to evaluate data quality</li> <li>I need to know how to raise the profile of my issues and persuade my boss to allocate resources to my cause</li> </ul>	<ul style="list-style-type: none"> <li>Decision-support guidance document which highlights common problems and broad strategies to address them</li> <li>Meeting facilitation training to strengthen a person’s ability to conduct meetings</li> <li>Well defined indicators to measure the extent to which technical support is provided by the one subnational tier to the lower subnational tier</li> <li>Data quality checklists to evaluate accuracy of data (physical stock counts, other quality checks)</li> <li>Monitoring, evaluation and data use are part of cadre/clinical training prior to entering the government’s workforce</li> </ul>	<ul style="list-style-type: none"> <li>Competency/skills mapping tools to assess a team’s data use capacity based on identified roles or functions in order to identify and fill necessary gaps via training or new hires</li> <li>Data literacy skills as a key consideration for job promotions</li> <li>Leadership training to manage cross-functional teams</li> <li>Mentorship in routine technical support provided by individuals at higher levels of the supply chain</li> <li>Continuous professional education opportunities for supply chain personnel to pursue training on latest best practices in data analysis</li> <li>Data quality rating established for different data sources, to help gauge reliability of data</li> <li>Skill-building trainings on how to use data for strategic story-telling so as to advocate for more resources</li> </ul>
	<b>Technical Role</b>		
NATIONAL LEVEL	<b>Administrative Role</b> <ul style="list-style-type: none"> <li>I need to have strategic problem-solving skills</li> <li>I need to know how to advocate for change</li> <li>I need technical assistance/support in coming up with a means for easily overseeing the country’s supply chain systematically</li> </ul>	<ul style="list-style-type: none"> <li>Skill-building trainings on how to use data for strategic story-telling so as to advocate for more resources</li> <li>Guidance on establishing a data control tower system which enables country level view of supply chain</li> <li>Dedicated MOH position for data scientist with the ability to analyze and manipulate logistics data</li> </ul>	<ul style="list-style-type: none"> <li>Harmonized data for management curriculum across leadership and management training programs</li> <li>In-country ownership and maintenance of information systems, including local IT expertise to make it sustainable</li> <li>Collaboration between information systems specialist and EPI Data Manager to develop and update data system documentation for every reporting and visualization system</li> </ul>
	<b>Technical Role</b>		

Figure 14. Knowledge & Skills example in the TOA

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b> <ul style="list-style-type: none"> <li>I need to know how to mentor, coach, question and give feedback to facility providers and/or CHWs related to data during our routine meetings</li> <li>I need to understand how the indicators I’m reporting contribute to the supply and safety of commodities at my facility</li> <li>I need the necessary skills on how to use data collection and reporting tools as a new employee</li> </ul>	<ul style="list-style-type: none"> <li>Capacity-building on how to provide two-way feedback between health system levels and ensure its adherence as part of routine reporting expectation at health facility level</li> <li>Indicator definition and indicator use in decision-making are part of continuous learning and supervision</li> <li>Special training and capacity building package for health facility in charges during orientation and on on-going basis</li> <li>Well established orientation course for every employee working in the supply chain management area to be taken before starting their role</li> </ul>	<ul style="list-style-type: none"> <li>Analytical/strategic thinking on using indicators to make decisions as part of pre-service training</li> <li>Guidelines which clearly stipulate expectations of data use skills in health facility-in-charge</li> <li>Embedded system of continuous mentorship and on-the-job training on data entry, data reporting and data analysis</li> </ul>
	<b>Technical Role</b>		
SUB-NATIONAL LEVELS	<b>Administrative Role</b> <ul style="list-style-type: none"> <li>I need to know what decisions are possible within the supply chain system I work in</li> <li>I need to know how to plan and facilitate a data review meeting</li> <li>I need technical support from higher authorities (e.g., regional/national) for supply chain data related issues</li> <li>I need capacity building in leadership and managerial skills to be able to coordinate different units/departments in matters pertaining to supply chain</li> </ul>	<ul style="list-style-type: none"> <li>Decision-support guidance document which highlights common problems and broad strategies to address them</li> <li>Meeting facilitation training to strengthen a person’s ability to conduct meetings</li> <li>Well defined indicators to measure the extent to which technical support is provided by the one subnational tier to the lower subnational tier</li> <li>Data quality checklists to evaluate accuracy of data (physical stock counts, other quality checks)</li> </ul>	<ul style="list-style-type: none"> <li>Competency/skills mapping tools to assess a team’s data use capacity based on identified roles or functions in order to identify and fill necessary gaps via training or new hires</li> <li>Data literacy skills as a key consideration for job promotions</li> <li>Leadership training to manage cross-functional teams</li> <li>Mentorship in routine technical support provided by individuals at higher levels of the supply chain</li> </ul>
	<b>Technical Role</b>		

## ADAPTATION AND LEARNING

The TOC/TOA is meant to serve as a common framework which all supply chain data use stakeholders can use and refine to best meet context-specific needs (see Appendix C for templates to be adapted as needed). As such, the TOC/TOA is intended to function as a

living document that the global community can continue to refine as we gain a deeper understanding of the factors that shape data use. It is important for stakeholders to monitor progress and test the TOC/TOA assumptions to determine if they are leading to the desired outcome of **instilled, scaled,** and **sustained** data use throughout the

supply chain. Through collaboration with the global community, this TOC/TOA will continue to be refined to reflect the collective knowledge and experience of supply chain stakeholders, ultimately improving equitable access to health supplies including vaccines.



### **How To:** Considerations when adapting the TOC/TOA

**Make it your own!: If an important data user or problem or need statement is missing from the current theory, add your own. If there is an intervention that has been tested to address a specific need, add to your framework. This will be a living document, and feedback should be shared with the larger supply chain data use community.**

## APPENDIX A:

---

### How To: Considerations when adapting the TOC/TOA



**Goals:** Adapt the language of the TOC/TOA components to best fit your goal and objectives. (e.g., end goals in the TOC).



**Data users:** Identify the data users whose needs you are trying to address through the TOA and the interventions you are implementing (e.g., **system users** in the TOC/TOA).



**Problems and Needs:** Identify the problem and need statements that most accurately reflect the needs of your context (e.g., **problem statements** in the TOC; **I need statements** in the TOA). Not all problem and need statements need to go into your TOC/TOA, if they are not relevant.



**Interventions:** Identify the data use interventions tools and processes that you feel best address the needs in your context, whether you are already implementing them or plan to implement them (e.g., interventions, tools and processes under the instill and **scale and sustain** columns of the TOA).









**Make it your own!:** If an important data user or problem or need statement is missing from the current theory, add your own. If there is an intervention that has been tested to address a specific need, add to your framework. This will be a living document, and feedback should be shared with the larger supply chain data use community.



**Add useful details:** Feel free to use the TOA as basis to add more details. For example, if you want to use the TOA to map out the quality of existing interventions in your country, you can add elements like Harvey Balls, traffic lights and progress bars. Similarly, you can use the TOA to draft out implementation considerations (e.g., timeline, resources required) for different data interventions.







# APPENDIX B: SUPPLY CHAIN DATA USE THEORY OF CHANGE AND THEORY OF ACTION

## Theory of Change

PUBLIC HEALTH SYSTEM USERS		USERS PROBLEM STATEMENTS	THEORY OF ACTION	INSTILL, SCALE & SUSTAIN	END GOAL							
FACILITY LEVEL	<div>Administrative</div> <div></div>	<div><b>TRUST</b></div> <ul style="list-style-type: none"><li>■ I do not trust those providing the data</li><li>■ I do not have reliable data and therefore do not trust what I do have</li><li>■ I do not have one, consistent data source</li><li>■ I do not trust the decisions I can reasonably make with the data I have</li><li>■ I am not trusted for the data I produce</li><li>■ I do not understand the relationship between data use and SC performance</li></ul> <div><b>KNOWLEDGE &amp; SKILLS</b></div> <ul style="list-style-type: none"><li>■ I do not know what data I need to make SC decisions</li><li>■ I do not know how to analyze data</li><li>■ I do not have multiple data use skills</li><li>■ I do not know how to troubleshoot complex data tools</li><li>■ I do not know how to know how to run successful data meetings</li><li>■ I do not understand what the SC indicators are telling me</li><li>■ I do not know how to advocate for SC changes</li><li>■ I do not have organizational capacity to run data review processes</li><li>■ I do not know how to conduct supportive supervision</li><li>■ I do not know how to oversee the entire country's supply chain</li></ul> <div><b>INCENTIVES &amp; MOTIVATION</b></div> <ul style="list-style-type: none"><li>■ I do not receive any professional reward for using data</li><li>■ I do not see the value in data review meetings</li><li>■ I do not see how data use relates to my career prospects or growth within the organization</li><li>■ I am pressured to report inaccurate data to meet ambitious targets</li></ul> <div><b>STRUCTURES</b></div> <ul style="list-style-type: none"><li>■ I do not receive feedback on the data I sent</li><li>■ I do not know how to coordinate with different departments on supply chain issues</li><li>■ I do not know what my specific data use responsibilities are</li><li>■ I do not have time and/or resources to generate, update, analyze and report data, including attending data review meetings with multiple competing priorities</li><li>■ I do not have technical support from the "higher ups" to use data</li><li>■ I do not have authority to make decisions</li></ul> <div><b>RESOURCES</b></div> <ul style="list-style-type: none"><li>■ I do not have the time/resources to oversee data use in my jurisdiction</li><li>■ I do not have the ability to predict staff reallocation decisions</li><li>■ I do not have the resources/time to use data/problem solve</li></ul> <div><b>SYSTEMS</b></div> <ul style="list-style-type: none"><li>■ I do not have tools which offer visibility into data at all levels and drill down capability</li><li>■ I do not have user friendly, streamlined systems in place which make data collection, data analysis, data visualization, data reporting and data communication efficient</li><li>■ I do not have bandwidth to contend with multiple tools which collect the same data</li><li>■ I do not have access to the right data</li></ul> <div><b>POLICIES</b></div> <ul style="list-style-type: none"><li>■ I do not have well-implemented or disseminated policies or strategies which make data use institutionalized</li><li>■ I do not have opportunities to be involved in national data use strategies or policy design</li><li>■ I do not have opportunities to provide input and contextually relevant information when donor funded data use projects are implemented</li></ul>	<div><b>TRUST</b></div> <p>I trust in the data and the people providing the data</p> <div><b>KNOWLEDGE &amp; SKILLS</b></div> <p>I have the skills and knowledge for data use relative to systems available</p> <div><b>INCENTIVES &amp; MOTIVATION</b></div> <p>I receive appropriate financial and non-financial incentives and I want to use data to make decisions</p> <div><b>STRUCTURES</b></div> <p>I have management structures and functions that support data use</p> <div><b>RESOURCES</b></div> <p>I have the human and monetary resources needed to support data use processes</p> <div><b>SYSTEMS</b></div> <p>I have access to system elements that support data use function and operation</p> <div><b>POLICIES</b></div> <p>I am supported by policies and strategies that guide data use</p>	Empowered, skilled and motivated workforce to use data	Data Use is institutionalized and actors at all levels are using data to drive continuous supply chain performance improvement	EQUITY Supply chains are optimised and responsive to needs of all population segments						
	<div>Technical</div> <div></div>											
SUB- NATIONAL LEVELS	<div>Administrative</div> <div></div>					Enabling environment to support a data use culture	Data Use is institutionalized and actors at all levels are using data to drive continuous supply chain performance improvement	ACCESS Health commodities are available to all who need them				
	<div>Technical</div> <div></div>											
NATIONAL LEVEL	<div>Administrative</div> <div></div>											
	<div>Technical</div> <div></div>											

## Theory of Action







### Trust: I trust in the data and the people providing the data

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to trust the data coming from the CHWs or others who contribute to my data submissions</li> <li>I need health facilities to report on time and in-full</li> <li>I need to trust that the those higher up the health system understand the data and limitations of data that I send</li> <li>I need one consistent data entry and reporting tool that does not leave room for ambiguity when data is entered and interpreted</li> <li>I need to trust that the data will be used for a particular purpose</li> </ul>	<ul style="list-style-type: none"> <li>✓ Data validation and checks on data entry platforms to restrict values that can be entered, helping improve data accuracy</li> <li>✓ Data quality SOPs available and followed by data generators at the facility and community level</li> <li>✓ Systems for data capturing to improve data quality at the source</li> <li>✓ Standard data definitions across data collection, reporting and visualization platforms to ensure consistency in data</li> <li>✓ Data audit reports that caveat and contextualize data from CHWs and facility based providers (e.g., explanation of peaks, outliers etc.)</li> </ul>	<ul style="list-style-type: none"> <li>✓ Data competencies for key functions that are included in job descriptions</li> <li>✓ Supervision for data generators that includes quality checks of data generated - e.g., maker/checker policy on all data</li> <li>✓ Single source of truth for supply chain data</li> <li>✓ Standard data definitions across data collection, reporting and visualization platforms to ensure consistency in data</li> <li>✓ Data review meetings to flag data issues</li> <li>✓ Harmonized data entry tools (e.g., HMIS, immunization registries) to reduce data burden</li> </ul>
	<b>Technical Role</b> 		
SUB- NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know that I can rely on facilities to report timely and accurate data.</li> <li>I need to understand there is value in making decisions based on the best data available, even if it is not perfect</li> <li>I need multiple sources to show consistent and validated data</li> <li>I need complete data from various departments and lower levels for a complete picture</li> </ul>	<ul style="list-style-type: none"> <li>✓ Data entry/reporting tools which reflect workflows</li> <li>✓ Data audit processes and flags in place to identify inaccuracies</li> <li>✓ Feedback on how data is being used in decision-making</li> <li>✓ Multi-level data review meetings to review data together collectively and work through data issues.</li> <li>✓ Supervision that includes data review and quality checks seen as a non-negotiable part of the sub-national health priorities</li> <li>✓ Guidelines on data triangulation</li> <li>✓ Data aggregation reporting tool capable of pulling data from different sources and providing one-stop shop</li> </ul>	<ul style="list-style-type: none"> <li>✓ Pre-service training on data quality assurance</li> <li>✓ Data warehouse to normalize data and improve data integrity</li> <li>✓ Linkage of all electronic data systems to identify magnitude of variation</li> <li>✓ Establish automated system for reporting to lessen reporting burden and errors</li> </ul>
	<b>Technical Role</b> 		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to rely on and be confident in my staff and their data so I can make decisions, suggestion policy and advocate for change</li> <li>I need to trust the data so I can use it for forecasting and planning</li> </ul>	<ul style="list-style-type: none"> <li>✓ Sensitizing leaders to use best available data for decision making</li> <li>✓ Clear job descriptions and job competencies pertaining to data use</li> <li>✓ Orientation on every KPI data source, components and frequency of updates every piece of your data,</li> <li>✓ Data audit catalog that provides pointers and tips for understanding data and potential discrepancies and inaccuracies</li> </ul>	<ul style="list-style-type: none"> <li>✓ Single source of truth for supply chain data</li> <li>✓ Evidence or documentation of the process or outcome improvements seen when data is used in decision-making</li> </ul>
	<b>Technical Role</b> 		









## Theory of Action

### Knowledge & Skills: I have the skills and knowledge for data use relative to systems available

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know how to mentor, coach, question and give feedback to facility providers and/or CHWs related to data during our routine meetings</li> <li>I need to understand how the indicators I'm reporting contribute to the supply and safety of commodities at my facility</li> <li>I need the necessary skills on how to use data collection and reporting tools as a new employee</li> </ul>	<ul style="list-style-type: none"> <li>✓ Capacity-building on how to provide two-way feedback between health system levels and ensure its adherence as part of routine reporting expectation at health facility level</li> <li>✓ Indicator definition and indicator use in decision-making are part of continuous learning and supervision</li> <li>✓ Special training and capacity building package for health facility in charges during orientation and on on-going basis</li> <li>✓ Well established orientation course for every employee working in the supply chain management area to be taken before starting their role</li> </ul>	<ul style="list-style-type: none"> <li>✓ Analytical/strategic thinking on using indicators to make decisions as part of pre-service training</li> <li>✓ Guidelines which clearly stipulate expectations of data use skills in health facility-in-charge</li> <li>✓ Embedded system of continuous mentorship and on-the-job training on data entry, data reporting and data analysis</li> </ul>
	<b>Technical Role</b> 		
SUB-NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know what decisions are possible within the supply chain system I work in</li> <li>I need to know how to plan and facilitate a data review meeting</li> <li>I need technical support from higher authorities (e.g., regional/national) for supply chain data related issues</li> <li>I need capacity building in leadership and managerial skills to be able to coordinate different units/departments in matters pertaining to supply chain</li> <li>I need data analysis skills to ensure the insights gleaned are reliable</li> <li>I need general training on data and national data collection tools before I enter the workforce</li> <li>I need to be able to evaluate data quality</li> <li>I need to know how to raise the profile of my issues and persuade my boss to allocate resources to my cause</li> </ul>	<ul style="list-style-type: none"> <li>✓ Decision-support guidance document which highlights common problems and broad strategies to address them</li> <li>✓ Meeting facilitation training to strengthen a person's ability to conduct meetings</li> <li>✓ Well defined indicators to measure the extent to which technical support is provided by the one subnational tier to the lower subnational tier</li> <li>✓ Data quality checklists to evaluate accuracy of data (physical stock counts, other quality checks)</li> <li>✓ Monitoring, evaluation and data use are part of cadre/clinical training prior to entering the government's workforce</li> </ul>	<ul style="list-style-type: none"> <li>✓ Competency/skills mapping tools to assess a team's data use capacity based on identified roles or functions in order to identify and fill necessary gaps via training or new hires</li> <li>✓ Data literacy skills as a key consideration for job promotions</li> <li>✓ Leadership training to manage cross-functional teams</li> <li>✓ Mentorship in routine technical support provided by individuals at higher levels of the supply chain</li> <li>✓ Continuous professional education opportunities for supply chain personnel to pursue training on latest best practices in data analysis</li> <li>✓ Data quality rating established for different data sources, to help gauge reliability of data</li> <li>✓ Skill-building trainings on how to use data for strategic story-telling so as to advocate for more resources</li> </ul>
	<b>Technical Role</b> 		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to have strategic problem-solving skills</li> <li>I need to know how to advocate for change</li> <li>I need technical assistance/support in coming up with a means for easily overseeing the country's supply chain systematically</li> </ul>	<ul style="list-style-type: none"> <li>✓ Skill-building trainings on how to use data for strategic story-telling so as to advocate for more resources</li> <li>✓ Guidance on establishing a data control tower system which enables country level view of supply chain</li> <li>✓ Dedicated MOH position for data scientist with the ability to analyze and manipulate logistics data</li> </ul>	<ul style="list-style-type: none"> <li>✓ Harmonized data for management curriculum across leadership and management training programs</li> <li>✓ In-country ownership and maintenance of information systems, including local IT expertise to make it sustainable</li> <li>✓ Collaboration between information systems specialist and EPI Data Manager to develop and update data system documentation for every reporting and visualization system</li> </ul>
	<b>Technical Role</b> 		







## Theory of Action

### Incentives & Motivation: I feel incentivized and rewarded when I use data to make decisions

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to be recognized for appropriately filling out reports and submitting them on time</li> <li>I need to be sure that I will not be reprimanded for bringing up problems</li> <li>I need emphasis from higher authorities that data use is important in decision-making</li> <li>I need my colleagues to recognize my work in the data space</li> <li>I need to be recognized for using data to make supply chain decisions and demonstrating improvements</li> </ul>	<ul style="list-style-type: none"> <li>✓ Periodic assessment to determine improvement in data use performance by facility level staff</li> <li>✓ Documentation of all minutes, action planning and a tracking mechanism to track plan implementation</li> <li>✓ There is a formal communication from the subnational levels that states all input that advances the objectives of the supply chain is valued and welcomed, that open communication is encouraged and that no one will be penalized for providing feedback</li> </ul>	<ul style="list-style-type: none"> <li>✓ Public recognition that becomes part of routine facility meetings</li> <li>✓ Performance improvement dashboards to provide analyzed data on system performance and on data use metrics</li> <li>✓ Change management to support a culture shift of where failure become a source for learning and improving rather than for blaming</li> <li>✓ Integrate data reporting into job appraisal criteria</li> <li>✓ Recognition of best performance and best practices</li> <li>✓ Feedback on how reported data</li> </ul>
	<b>Technical Role</b>  <ul style="list-style-type: none"> <li>I need to see the value in data review meetings</li> <li>I need feedback on my data</li> </ul>		
SUB-NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to see that I don't get penalized if what I put forward is not perfect</li> <li>I need to celebrate my wins (when I have solved problems) and have quantifiable metrics of my wins</li> <li>I need to see things change based on what we extract from data</li> <li>I need to set realistic targets and deadlines</li> <li>I need appreciation if I meet targets</li> <li>I need to be convinced that this is valuable and part of my job and is worth our resources</li> <li>I need to see that when my jurisdiction does well with data use and SC performance, it positively impacts my career</li> </ul>	<ul style="list-style-type: none"> <li>✓ A forum (e.g., Data Use Awards/Data Champions League) where data use and performance is recognized and rewarded (e.g., reporting rates)</li> <li>✓ Innovative solutions and new ideas are supported/ tested on small scale (e.g., data use innovation grants)</li> <li>✓ Process established and encouraged for providing feedback on decisions made at higher levels of the health system using data generated at lower levels of the health system</li> <li>✓ Documentation of all minutes, action planning and a tracking mechanism to track the action plan</li> <li>✓ Process for documenting team wins as part of data review (data use highs and lows)</li> <li>✓ Recognition plans at each level</li> <li>✓ Consultation with doers before setting deadlines/ targets</li> <li>✓ Guidance on setting recognition plans and targets</li> </ul>	<ul style="list-style-type: none"> <li>✓ Accountability measure to ensure regular TA support provided to lower levels by high levels</li> <li>✓ Recognition of best performance and best practices</li> <li>✓ Establish team and department objectives &amp; key results (OKRs) on a periodic basis to set and track progress towards meeting targets</li> <li>✓ Grants or protected time to allow employees to pursue continued professional education on data use (e.g., data science courses)</li> <li>✓ Integrate data use expectations into job appraisal systems</li> </ul>
	<b>Technical Role</b> 		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to see that when I use data it results in positive and meaningful actions at higher and lower levels of the health system</li> <li>I need to see that my role and contributions to SC improvements are recognized</li> </ul>	<ul style="list-style-type: none"> <li>✓ A forum e.g., Data Use Awards/Data Champions League where national and subnational data use and performance is recognized and rewarded (e.g., reporting rates)</li> <li>✓ Guidance on setting recognition plans and targets</li> <li>✓ Process for providing feedback on results of decisions made at higher levels of the health system using data implemented at lower levels of the health system</li> </ul>	<ul style="list-style-type: none"> <li>✓ National issue logs that link issues or "issue tickets" to specific action taken at higher levels</li> <li>✓ Promotion potential at all levels are dependent on data use and data literacy</li> <li>✓ Professional boards to recognize logistics-focused performance</li> </ul>
	<b>Technical Role</b> 		







## Theory of Action

**Structures: I see that there are reporting, administrative structures in place that promote and reward data use**

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need a structure for getting feedback from subnational supervisors on the data I generate</li> <li>I need to facility wide coordination around supply chain data use between and among those in administrative and technical roles</li> <li>I need to know the specific data use responsibilities as they relate to my facility duties</li> <li>I need there to be processes in place to review data at my facility</li> <li>I need time to generate, update, analyze, report data</li> <li>I need to know what decisions are within my purview so that I am empowered to use data to make them</li> </ul>	<ul style="list-style-type: none"> <li>✓ Standardized feedback reports are part of management responsibilities and are sent by a specific date each month from the subnational levels</li> <li>✓ Facility level data review teams</li> <li>✓ Facility level data use champions to promote data use</li> </ul>	<ul style="list-style-type: none"> <li>✓ Data use objectives in performance appraisal system</li> <li>✓ Data use metrics integrated for facility performance monitoring</li> </ul>
	<b>Technical Role</b> 		
SUB- NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need job performance reviews to include data skills and for it to be covered in routine supervision</li> <li>I need time to generate, update, analyze, report data</li> <li>I need the authority to ensure that the right personnel prioritize data review and the right personnel take action, knowing these might be different people</li> <li>I need data review meetings to not just look at data, but also at root causes of performance and action planning</li> </ul>	<ul style="list-style-type: none"> <li>✓ Supervision tools include a review and assessment of job specific data use capacity, tasks and responsibilities</li> <li>✓ Prioritization matrix which identifies when data use activities should be prioritized over other activities</li> <li>✓ Clear SOPs for data review meetings that include root cause analysis</li> <li>✓ Building coordination structures/mechanisms to manage action plans</li> <li>✓ Guidelines/standardized tools to assist with planning and scheduling</li> <li>✓ Issue escalation codes that provide guidelines on how issues should be escalated and communicated</li> <li>✓ Forum for people to interact and discuss data use issues and best practices (e.g., a community of practice)</li> <li>✓ Sub National Level data use champions</li> </ul>	<ul style="list-style-type: none"> <li>✓ Clear job descriptions identifying data user's data roles</li> <li>✓ Conduct a time map based on all the duties assigned to different health system actors and assess how data use fits into priorities to maximize synergies rather than create tasked silos</li> <li>✓ Communication between pre-service, on-the-job training providers to ensure harmonized data use messages and content across programs</li> <li>✓ Leadership and coordination skills for data use to be part of capacity building package for administrative roles</li> <li>✓ Wide dissemination of existing procedures, structures and guidelines</li> <li>✓ A supply chain decision SOP that outlines decision making authority at each level and for each role in the health system</li> </ul>
	<b>Technical Role</b> 		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need my team to include staff with the analytical skills and staff with deep supply chain expertise to help me understand what decisions to make with the data</li> <li>I need harmonized and streamlined efforts from different functional units to solve supply chain issues at the central level</li> </ul>	<ul style="list-style-type: none"> <li>✓ Mechanisms to engage private sector mentors who can share knowledge on data use topics</li> <li>✓ Institutionalized supply chain performance management teams that extend across and communicate with all supply chain tiers</li> </ul>	<ul style="list-style-type: none"> <li>✓ A "data dependency" org chart which visualizes data flows and data dependencies across supply chain data users and decision-makers</li> </ul>
	<b>Technical Role</b>  <ul style="list-style-type: none"> <li>I need clear roles and job descriptions for data use so that staff understand their roles and expectations</li> <li>I need time to monitor and use data</li> </ul>		







## Theory of Action

### Resources: I have the human and monetary resources needed to support data use processes

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS	
FACILITY LEVEL	<div>Administrative Role</div> <div></div> <div>Technical Role</div> <div></div>	<ul style="list-style-type: none"><li>I need to know that data use is an approach that I can use for meetings beyond just supply chain meetings to maximize time</li><li>I need to be able to hold data review meetings at the workstation</li></ul>	<ul style="list-style-type: none"><li>✓ Develop virtual options for data review meetings and other data use interventions</li><li>✓ Tools, guidance and capacity building for organizing effective meetings with minimal costs</li><li>✓ Integrate supply chain data meetings across products, to optimize time, use human/monetary resources efficiently, and leverage supply chain resources across programs</li></ul>	
	<div>Administrative Role</div> <div></div> <div>Technical Role</div> <div></div>	<ul style="list-style-type: none"><li>I need to know that the approach/agenda can effectively be incorporated in existing meetings</li><li>I need to incorporate data review meetings and other data use activities in annual work plans and budgets</li><li>I need to be sufficiently supported with resources to implement SC interventions/action plans</li><li>I need to understand my resource availability so I strategize appropriate allocation</li><li>I need to be able to mobilize additional resources when needed to support data use interventions e.g., from Partners or Private sector</li></ul>	<ul style="list-style-type: none"><li>✓ A government guidance, tools and subsequent budget outlining how data use meetings can held at workstations</li><li>✓ Align and integrate government and donor financial reporting process, to use time more efficiently</li><li>✓ Subnational supply chain leadership, finance, and HR units who support data use interventions are involved in the budgeting process so that budgets include resources to carry out supply chain specific action plans based on data-based decision making</li></ul>	<ul style="list-style-type: none"><li>✓ National and subnational budget and budget guidance include standard line items for data use activities</li></ul>
NATIONAL LEVEL	<div>Administrative Role</div> <div></div> <div>Technical Role</div> <div></div>	<ul style="list-style-type: none"><li>I need to design and disseminate data use strategies that are not resources heavy for sustainability</li><li>I need to develop low cost ways of monitoring and supporting data use lower levels</li></ul>	<ul style="list-style-type: none"><li>✓ Virtual options for supervision, feedback and mentorship to reduce the cost and time burden of travel</li><li>✓ Develop virtual Data Quality and Use plans</li><li>✓ Disburse funding and resources to sub-national and facility levels in a timely manner</li></ul>	<ul style="list-style-type: none"><li>✓ Policy on minimum resource allocation thresholds required for data use activities and improvements</li></ul>







## Theory of Action

**Systems: I see that there are data reporting, analysis and communication systems in place that facilitate data use**

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to receive and have access to correct logistics data from all facility outlets (e.g., dispensary unit, lab, CBD, RCH, etc.) that I require to place orders, manage my stock and to complete required reports</li> <li>I need simple, efficient data tools that are reinforced by standardized clear SOPs</li> <li>I need a single platform which will enable me to collect all the required data at the health facility</li> </ul>	<ul style="list-style-type: none"> <li>User friendly data collection tools that capture all the required information from all facility outlets</li> <li>Logistics Management Information Systems which are reflective of lower level workflows and supply chain systems (e.g., LMIS to capture push/pull delivery systems)</li> <li>Data validation from tools to identify when data deviates from acceptable levels</li> <li>Access to systems support documentation (or resources) if I have questions or issues</li> </ul>	<ul style="list-style-type: none"> <li>Where systems are electronic, ensure there is offline capability to account for power or connectivity issues</li> <li>Continuous/ongoing supervision/training to ensure staff are trained and stay up to date on proper systems use</li> <li>Communication about any changes to the systems or SOPs related to systems</li> <li>Strong, easy to access end-user support on systems</li> <li>Concerns/feedback/suggestions for making systems more usable and reflective of workflows are addressed</li> </ul>
	<b>Technical Role</b> 		
SUB- NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to receive and have access to correct logistics data from all district, regional, specialized hospitals, and facilities which are located in my jurisdiction for proper reporting and decision making</li> <li>I need information/data presented in a format where I know what to do with it</li> <li>I need a single platform which will enable me access all the required data with drill down functions to aggregate or disaggregate data as appropriate</li> <li>I need to have an expert who can debug and troubleshoot information systems</li> </ul>	<ul style="list-style-type: none"> <li>All users have appropriate accounts for supply chain systems</li> <li>Guidelines on data triangulation across different health systems</li> <li>Simple tools that are compatible with multiple national systems</li> <li>Assign system roles and responsibilities for different actors at different levels</li> <li>Standardized and comprehensive decision support tools/dashboards that are created using the system data with drill down functionality</li> <li>Glossary of different data contained across different data systems</li> <li>Standardized data elements/terms/KPIs across systems and prioritized for review</li> <li>Data aggregation tool capable of pulling data from different sources and providing one-stop shop or an single reporting system that harmonizes data fed by multiple systems</li> <li>System includes configurable thresholds and provides alerts/notifications when reached to prompt review/action</li> </ul>	<ul style="list-style-type: none"> <li>Designated Data Manager/IT systems specialist role to debug issues in information systems</li> <li>Systems Team/vendor to provide continued support &amp; improvements to the system</li> <li>System generated in-built data quality and validation checks to flag data issues</li> <li>Report generation capabilities in LMIS to help view and interact with data on a regular basis</li> <li>System generated decision support tools/dashboards with relevant data visualizations based on the needs of the users</li> <li>Adequate infrastructure and hardware</li> </ul>
	<b>Technical Role</b> 		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to receive and have access to correct logistics data from all levels so I can use data in real time</li> <li>I need a data system with more automation of analysis so that data use requires less time and guesswork.</li> <li>I need an information system in place that aggregates and analyzes the right information.</li> <li>I need to see digestible reports from data review meetings</li> </ul>	<ul style="list-style-type: none"> <li>SOPs to reflect data systems and current workflows which are updated on regular basis</li> <li>People-centered data driven national team to regularly analyze supply chain issues and make strategic decisions to solve them</li> </ul>	<ul style="list-style-type: none"> <li>Change management protocols to manage how changes or upgrades to data systems are rolled out</li> <li>Documented change of managerial protocols for the existing LMIS in the country</li> <li>National policies and procedures related to HIS governance (e.g., ensuring there are not multiple competing or duplicative systems, systems adhere to certain standards/requirements to facilitate interoperability) and master data management (systems defined facilities, products, geographic/ administrative zones etc. consistently or that they are mapped between systems and how that data gets updated)</li> </ul>
	<b>Technical Role</b> 		







## Theory of Action

### Policies: I am supported by policies and strategies that guide data use

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS	
FACILITY LEVEL	<div>Administrative Role</div> <div></div> <div>Technical Role</div> <div></div>	<ul style="list-style-type: none"><li>I need to know that I will get supervision that include a review of my data use roles and skills</li><li>I need to know that I will get feedback on the data I send, regularly and within a reasonable amount of time after submitting data</li><li>I need the data I collect to inform policy</li></ul>	<ul style="list-style-type: none"><li>Virtual options for accessible tools for supervision, feedback and mentorship to reduce the cost and time burden of travel (example, texts, WhatsApp, an online portal, etc.)</li><li>Guidelines and policy around standardized timeframes and format for sending feedback on data submitted by lower levels</li></ul>	<ul style="list-style-type: none"><li>Policy mandating supportive supervision and mentorship that includes an avenue for reporting/ taking action when this support is not provided</li></ul>
	<div>Administrative Role</div> <div></div> <div>Technical Role</div> <div></div>	<ul style="list-style-type: none"><li>I need a government mandate outlining the time spent at my workstation so that I am there frequently enough to review data</li><li>I need to be consulted as part of the design of data use interventions to ensure it supports program priorities</li><li>I need a clear data use strategy issued and disseminated by the national MOH embedded</li></ul>	<ul style="list-style-type: none"><li>Guidelines that outline how often health system staff can be taken away from their day-to-day tasks for things like trainings, meetings, etc. that are not deemed essential</li><li>Subnational steering committee/taskforce on data use that feeds into National Data Use Strategy</li><li>Identify SC data use champions or taskforce across related departments (Finance, HR, IT) who champion data use interventions</li></ul>	<ul style="list-style-type: none"><li>Mandates which say that all NGOs/donors should adopt user-centered designed methods to implement data use related programs and interventions</li></ul>
NATIONAL LEVEL	<div>Administrative Role</div> <div></div> <div>Technical Role</div> <div></div>	<ul style="list-style-type: none"><li>I need a National Data Use Strategy that define data use objectives and expectations</li><li>I need to see that government policies are updated to reflect data use dependencies and needs (Procurement, Financing, HR, IT)</li><li>I need policies that clearly outline which job functions at all levels of the health system play a role in supporting data requirements</li></ul>	<ul style="list-style-type: none"><li>Setting of yearly data use “objectives and key results” to feed into a national vision for SC data use</li><li>National steering committee/taskforce on data use that feeds into National Data Use Strategy</li></ul>	<ul style="list-style-type: none"><li>Development and dissemination of a National Data Use Strategy</li><li>Standards for information systems and reporting platforms</li></ul>

# APPENDIX C. SUPPLY CHAIN DATA USE THEORY OF CHANGE AND THEORY OF ACTION TEMPLATES







## Theory of Change Template

PUBLIC HEALTH SYSTEM USERS		USERS PROBLEM STATEMENTS	THEORY OF ACTION	INSTILL, SCALE & SUSTAIN	END GOAL	
FACILITY LEVEL	Administrative 	<b>TRUST</b> <ul style="list-style-type: none"> <li>I do not trust those providing the data</li> <li>I do not have reliable data and therefore do not trust what I do have</li> <li>I do not have one, consistent data source</li> <li>I do not trust the decisions I can reasonably make with the data I have</li> <li>I am not trusted for the data I produce</li> <li>I do not understand the relationship between data use and SC performance</li> </ul> <hr/> <b>KNOWLEDGE &amp; SKILLS</b> <ul style="list-style-type: none"> <li>I do not know what data I need to make SC decisions</li> <li>I do not know how to analyze data</li> <li>I do not have multiple data use skills</li> <li>I do not know how to troubleshoot complex data tools</li> <li>I do not know how to know how to run successful data meetings</li> <li>I do not understand what the SC indicators are telling me</li> <li>I do not know how to advocate for SC changes</li> <li>I do not have organizational capacity to run data review processes</li> <li>I do not know how to conduct supportive supervision</li> <li>I do not know how to oversee the entire country's supply chain</li> </ul> <hr/>		<b>TRUST</b> I trust in the data and the people providing the data  <b>KNOWLEDGE &amp; SKILLS</b> I have the skills and knowledge for data use relative to systems available  <b>INCENTIVES &amp; MOTIVATION</b> I receive appropriate financial and non-financial incentives and I want to use data to make decisions	Empowered, skilled and motivated workforce to use data	<b>EQUITY</b> Supply chains are optimised and responsive to needs of all population segments
	Technical 					
SUB-NATIONAL LEVELS	Administrative 	<b>INCENTIVES &amp; MOTIVATION</b> <ul style="list-style-type: none"> <li>I do not receive any professional reward for using data</li> <li>I do not see the value in data review meetings</li> <li>I do not see how data use relates to my career prospects or growth within the organization</li> <li>I am pressured to report inaccurate data to meet ambitious targets</li> </ul> <hr/> <b>STRUCTURES</b> <ul style="list-style-type: none"> <li>I do not receive feedback on the data I sent</li> <li>I do not know how to coordinate with different departments on supply chain issues</li> <li>I do not know what my specific data use responsibilities are</li> <li>I do not have time and/or resources to generate, update, analyze and report data, including attending data review meetings with multiple competing priorities</li> <li>I do not have technical support from the "higher ups" to use data</li> <li>I do not have authority to make decisions</li> </ul> <hr/>		<b>STRUCTURES</b> I have management structures and functions that support data use  <b>RESOURCES</b> I have the human and monetary resources needed to support data use processes  <b>SYSTEMS</b> I have access to system elements that support data use function and operation  <b>POLICIES</b> I am supported by policies and strategies that guide data use	Enabling environment to support a data use culture	<b>ACCESS</b> Health commodities are available to all who need them
	Technical 					
NATIONAL LEVEL	Administrative 	<b>RESOURCES</b> <ul style="list-style-type: none"> <li>I do not have the time/resources to oversee data use in my jurisdiction</li> <li>I do not have the ability to predict staff reallocation decisions</li> <li>I do not have the resources/time to use data/problem solve</li> </ul> <hr/> <b>SYSTEMS</b> <ul style="list-style-type: none"> <li>I do not have tools which offer visibility into data at all levels and drill down capability</li> <li>I do not have user friendly, streamlined systems in place which make data collection, data analysis, data visualization, data reporting and data communication efficient</li> <li>I do not have bandwidth to contend with multiple tools which collect the same data</li> <li>I do not have access to the right data</li> </ul> <hr/>				
	Technical 					









## Theory of Action Template

### Trust: I trust in the data and the people providing the data

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to trust the data coming from the CHWs or others who contribute to my data submissions</li> <li>I need health facilities to report on time and in-full</li> <li>I need to trust that the those higher up the health system understand the data and limitations of data that I send</li> <li>I need one consistent data entry and reporting tool that does not leave room for ambiguity when data is entered and interpreted</li> <li>I need to trust that the data will be used for a particular purpose</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Data validation and checks on data entry platforms to restrict values that can be entered, helping improve data accuracy</li> <li>✓ Data quality SOPs available and followed by data generators at the facility and community level</li> <li>✓ Systems for data capturing to improve data quality at the source</li> <li>✓ Standard data definitions across data collection, reporting and visualization platforms to ensure consistency in data</li> <li>✓ Data audit reports that caveat and contextualize data from CHWs and facility based providers (e.g., explanation of peaks, outliers etc.)</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Data competencies for key functions that are included in job descriptions</li> <li>✓ Supervision for data generators that includes quality checks of data generated - e.g., maker/checker policy on all data</li> <li>✓ Single source of truth for supply chain data</li> <li>✓ Standard data definitions across data collection, reporting and visualization platforms to ensure consistency in data</li> <li>✓ Data review meetings to flag data issues</li> <li>✓ Harmonized data entry tools (e.g., HMIS, immunization registries) to reduce data burden</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		
SUB-NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know that I can rely on facilities to report timely and accurate data.</li> <li>I need to understand there is value in making decisions based on the best data available, even if it is not perfect</li> <li>I need multiple sources to show consistent and validated data</li> <li>I need complete data from various departments and lower levels for a complete picture</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Data entry/reporting tools which reflect workflows</li> <li>✓ Data audit processes and flags in place to identify inaccuracies</li> <li>✓ Feedback on how data is being used in decision-making</li> <li>✓ Multi-level data review meetings to review data together collectively and work through data issues.</li> <li>✓ Supervision that includes data review and quality checks seen as a non-negotiable part of the sub-national health priorities</li> <li>✓ Guidelines on data triangulation</li> <li>✓ Data aggregation reporting tool capable of pulling data from different sources and providing one-stop shop</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Pre-service training on data quality assurance</li> <li>✓ Data warehouse to normalize data and improve data integrity</li> <li>✓ Linkage of all electronic data systems to identify magnitude of variation</li> <li>✓ Establish automated system for reporting to lessen reporting burden and errors</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to rely on and be confident in my staff and their data so I can make decisions, suggestion policy and advocate for change</li> <li>I need to trust the data so I can use it for forecasting and planning</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Sensitizing leaders to use best available data for decision making</li> <li>✓ Clear job descriptions and job competencies pertaining to data use</li> <li>✓ Orientation on every KPI data source, components and frequency of updates every piece of your data,</li> <li>✓ Data audit catalog that provides pointers and tips for understanding data and potential discrepancies and inaccuracies</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Single source of truth for supply chain data</li> <li>✓ Evidence or documentation of the process or outcome improvements seen when data is used in decision-making</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		







## Theory of Action Template

### Knowledge & Skills: I have the skills and knowledge for data use relative to systems available

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know how to mentor, coach, question and give feedback to facility providers and/or CHWs related to data during our routine meetings</li> <li>I need to understand how the indicators I'm reporting contribute to the supply and safety of commodities at my facility</li> <li>I need the necessary skills on how to use data collection and reporting tools as a new employee</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Capacity-building on how to provide two-way feedback between health system levels and ensure its adherence as part of routine reporting expectation at health facility level</li> <li>✓ Indicator definition and indicator use in decision-making are part of continuous learning and supervision</li> <li>✓ Special training and capacity building package for health facility in charges during orientation and on on-going basis</li> <li>✓ Well established orientation course for every employee working in the supply chain management area to be taken before starting their role</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Analytical/strategic thinking on using indicators to make decisions as part of pre-service training</li> <li>✓ Guidelines which clearly stipulate expectations of data use skills in health facility-in-charge</li> <li>✓ Embedded system of continuous mentorship and on-the-job training on data entry, data reporting and data analysis</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		
SUB- NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know what decisions are possible within the supply chain system I work in</li> <li>I need to know how to plan and facilitate a data review meeting</li> <li>I need technical support from higher authorities (e.g., regional/national) for supply chain data related issues</li> <li>I need capacity building in leadership and managerial skills to be able to coordinate different units/departments in matters pertaining to supply chain</li> <li>I need data analysis skills to ensure the insights gleaned are reliable</li> <li>I need general training on data and national data collection tools before I enter the workforce</li> <li>I need to be able to evaluate data quality</li> <li>I need to know how to raise the profile of my issues and persuade my boss to allocate resources to my cause</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Decision-support guidance document which highlights common problems and broad strategies to address them</li> <li>✓ Meeting facilitation training to strengthen a person's ability to conduct meetings</li> <li>✓ Well defined indicators to measure the extent to which technical support is provided by the one subnational tier to the lower subnational tier</li> <li>✓ Data quality checklists to evaluate accuracy of data (physical stock counts, other quality checks)</li> <li>✓ Monitoring, evaluation and data use are part of cadre/clinical training prior to entering the government's workforce</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Competency/skills mapping tools to assess a team's data use capacity based on identified roles or functions in order to identify and fill necessary gaps via training or new hires</li> <li>✓ Data literacy skills as a key consideration for job promotions</li> <li>✓ Leadership training to manage cross-functional teams</li> <li>✓ Mentorship in routine technical support provided by individuals at higher levels of the supply chain</li> <li>✓ Continuous professional education opportunities for supply chain personnel to pursue training on latest best practices in data analysis</li> <li>✓ Data quality rating established for different data sources, to help gauge reliability of data</li> <li>✓ Skill-building trainings on how to use data for strategic story-telling so as to advocate for more resources</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to have strategic problem-solving skills</li> <li>I need to know how to advocate for change</li> <li>I need technical assistance/support in coming up with a means for easily overseeing the country's supply chain systematically</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Skill-building trainings on how to use data for strategic story-telling so as to advocate for more resources</li> <li>✓ Guidance on establishing a data control tower system which enables country level view of supply chain</li> <li>✓ Dedicated MOH position for data scientist with the ability to analyze and manipulate logistics data</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Harmonized data for management curriculum across leadership and management training programs</li> <li>✓ In-country ownership and maintenance of information systems, including local IT expertise to make it sustainable</li> <li>✓ Collaboration between information systems specialist and EPI Data Manager to develop and update data system documentation for every reporting and visualization system</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		







## Theory of Action Template

### Incentives & Motivation: I feel incentivized and rewarded when I use data to make decisions

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to be recognized for appropriately filling out reports and submitting them on time</li> <li>I need to be sure that I will not be reprimanded for bringing up problems</li> <li>I need emphasis from higher authorities that data use is important in decision-making</li> <li>I need my colleagues to recognize my work in the data space</li> <li>I need to be recognized for using data to make supply chain decisions and demonstrating improvements</li> <li>I need to see the value in data review meetings</li> <li>I need feedback on my data</li> </ul>	<ul style="list-style-type: none"> <li>✓ Periodic assessment to determine improvement in data use performance by facility level staff</li> <li>✓ Documentation of all minutes, action planning and a tracking mechanism to track plan implementation</li> <li>✓ There is a formal communication from the subnational levels that states all input that advances the objectives of the supply chain is valued and welcomed, that open communication is encouraged and that no one will be penalized for providing feedback</li> </ul>	<ul style="list-style-type: none"> <li>✓ Public recognition that becomes part of routine facility meetings</li> <li>✓ Performance improvement dashboards to provide analyzed data on system performance and on data use metrics</li> <li>✓ Change management to support a culture shift of where failure become a source for learning and improving rather than for blaming</li> <li>✓ Integrate data reporting into job appraisal criteria</li> <li>✓ Recognition of best performance and best practices</li> <li>✓ Feedback on how reported data</li> </ul>
	<b>Technical Role</b>  <ul style="list-style-type: none"> <li></li> <li></li> </ul>		
SUB-NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to see that I don't get penalized if what I put forward is not perfect</li> <li>I need to celebrate my wins (when I have solved problems) and have quantifiable metrics of my wins</li> <li>I need to see things change based on what we extract from data</li> <li>I need to set realistic targets and deadlines.</li> <li>I need appreciation if I meet targets</li> <li>I need to be convinced that this is valuable and part of my job and is worth our resources</li> <li>I need to see that when my jurisdiction does well with data use and SC performance, it positively impacts my career</li> </ul>	<ul style="list-style-type: none"> <li>✓ A forum (e.g., Data Use Awards/Data Champions League) where data use and performance is recognized and rewarded (e.g., reporting rates)</li> <li>✓ Innovative solutions and new ideas are supported/-tested on small scale (e.g., data use innovation grants)</li> <li>✓ Process established and encouraged for providing feedback on decisions made at higher levels of the health system using data generated at lower levels of the health system</li> <li>✓ Documentation of all minutes, action planning and a tracking mechanism to track the action plan</li> <li>✓ Process for documenting team wins as part of data review (data use highs and lows)</li> <li>✓ Recognition plans at each level</li> <li>✓ Consultation with doers before setting deadlines/targets</li> <li>✓ Guidance on setting recognition plans and targets</li> </ul>	<ul style="list-style-type: none"> <li>✓ Accountability measure to ensure regular TA support provided to lower levels by high levels</li> <li>✓ Recognition of best performance and best practices</li> <li>✓ Establish team and department objectives &amp; key results (OKRs) on a periodic basis to set and track progress towards meeting targets</li> <li>✓ Grants or protected time to allow employees to pursue continued professional education on data use (e.g., data science courses)</li> <li>✓ Integrate data use expectations into job appraisal systems</li> </ul>
	<b>Technical Role</b>  <ul style="list-style-type: none"> <li></li> <li></li> </ul>		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to see that when I use data it results in positive and meaningful actions at higher and lower levels of the health system</li> <li>I need to see that my role and contributions to SC improvements are recognized</li> </ul>	<ul style="list-style-type: none"> <li>✓ A forum e.g., Data Use Awards/Data Champions League where national and subnational data use and performance is recognized and rewarded (e.g., reporting rates)</li> <li>✓ Guidance on setting recognition plans and targets</li> <li>✓ Process for providing feedback on results of decisions made at higher levels of the health system using data implemented at lower levels of the health system</li> </ul>	<ul style="list-style-type: none"> <li>✓ National issue logs that link issues or "issue tickets" to specific action taken at higher levels</li> <li>✓ Promotion potential at all levels are dependent on data use and data literacy</li> <li>✓ Professional boards to recognize logistics-focused performance</li> </ul>
	<b>Technical Role</b>  <ul style="list-style-type: none"> <li></li> <li></li> </ul>		







## Theory of Action Template

**Structures: I see that there are reporting, administrative structures in place that promote and reward data use**

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need a structure for getting feedback from subnational supervisors on the data I generate</li> <li>I need to facility wide coordination around supply chain data use between and among those in administrative and technical roles</li> <li>I need to know the specific data use responsibilities as they relate to my facility duties</li> <li>I need there to be processes in place to review data at my facility</li> <li>I need time to generate, update, analyze, report data</li> <li>I need to know what decisions are within my purview so that I am empowered to use data to make them</li> </ul>	<ul style="list-style-type: none"> <li>✓ Standardized feedback reports are part of management responsibilities and are sent by a specific date each month from the subnational levels</li> <li>✓ Facility level data review teams</li> <li>✓ Facility level data use champions to promote data use</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Data use objectives in performance appraisal system</li> <li>✓ Data use metrics integrated for facility performance monitoring</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b>  <ul style="list-style-type: none"> <li>_____</li> <li>_____</li> </ul>		
SUB- NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need job performance reviews to include data skills and for it to be covered in routine supervision</li> <li>I need time to generate, update, analyze, report data</li> <li>I need the authority to ensure that the right personnel prioritize data review and the right personnel take action, knowing these might be different people</li> <li>I need data review meetings to not just look at data, but also at root causes of performance and action planning</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Supervision tools include a review and assessment of job specific data use capacity, tasks and responsibilities</li> <li>✓ Prioritization matrix which identifies when data use activities should be prioritized over other activities</li> <li>✓ Clear SOPs for data review meetings that include root cause analysis</li> <li>✓ Building coordination structures/mechanisms to manage action plans</li> <li>✓ Guidelines/standardized tools to assist with planning and scheduling</li> <li>✓ Issue escalation codes that provide guidelines on how issues should be escalated and communicated</li> <li>✓ Forum for people to interact and discuss data use issues and best practices (e.g., a community of practice)</li> <li>✓ Sub National Level data use champions</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Clear job descriptions identifying data user's data roles</li> <li>✓ Conduct a time map based on all the duties assigned to different health system actors and assess how data use fits into priorities to maximize synergies rather than create tasked silos</li> <li>✓ Communication between pre-service, on-the-job training providers to ensure harmonized data use messages and content across programs</li> <li>✓ Leadership and coordination skills for data use to be part of capacity building package for administrative roles</li> <li>✓ Wide dissemination of existing procedures, structures and guidelines</li> <li>✓ A supply chain decision SOP that outlines decision making authority at each level and for each role in the health system</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b>  <ul style="list-style-type: none"> <li>_____</li> <li>_____</li> </ul>		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need my team to include staff with the analytical skills and staff with deep supply chain expertise to help me understand what decisions to make with the data</li> <li>I need harmonized and streamlined efforts from different functional units to solve supply chain issues at the central level</li> <li>I need clear roles and job descriptions for data use so that staff understand their roles and expectations</li> <li>I need time to monitor and use data</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Mechanisms to engage private sector mentors who can share knowledge on data use topics</li> <li>✓ Institutionalized supply chain performance management teams that extend across and communicate with all supply chain tiers</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ A "data dependency" org chart which visualizes data flows and data dependencies across supply chain data users and decision-makers</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b>  <ul style="list-style-type: none"> <li>_____</li> <li>_____</li> </ul>		





## Theory of Action Template

### Resources: I have the human and monetary resources needed to support data use processes

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know that data use is an approach that I can use for meetings beyond just supply chain meetings to maximize time</li> <li>I need to be able to hold data review meetings at the workstation</li> </ul>	<ul style="list-style-type: none"> <li>✓ Develop virtual options for data review meetings and other data use interventions</li> <li>✓ Tools, guidance and capacity building for organizing effective meetings with minimal costs</li> <li>✓ Integrate supply chain data meetings across products, to optimize time, use human/monetary resources efficiently, and leverage supply chain resources across programs</li> </ul>	<ul style="list-style-type: none"> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b>  		
SUB- NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know that the approach/agenda can effectively be incorporated in existing meetings</li> <li>I need to incorporate data review meetings and other data use activities in annual work plans and budgets</li> <li>I need to be sufficiently supported with resources to implement SC interventions/action plans</li> <li>I need to understand my resource availability so I strategize appropriate allocation</li> <li>I need to be able to mobilize additional resources when needed to support data use interventions e.g., from Partners or Private sector</li> </ul>	<ul style="list-style-type: none"> <li>✓ A government guidance, tools and subsequent budget outlining how data use meetings can held at workstations</li> <li>✓ Align and integrate government and donor financial reporting process, to use time more efficiently</li> <li>✓ Subnational supply chain leadership, finance, and HR units who support data use interventions are involved in the budgeting process so that budgets include resources to carry out supply chain specific action plans based on data-based decision making</li> </ul>	<ul style="list-style-type: none"> <li>✓ National and subnational budget and budget guidance include standard line items for data use activities</li> </ul>
	<b>Technical Role</b>  		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to design and disseminate data use strategies that are not resources heavy for sustainability</li> <li>I need to develop low cost ways of monitoring and supporting data use lower levels</li> </ul>	<ul style="list-style-type: none"> <li>✓ Virtual options for supervision, feedback and mentorship to reduce the cost and time burden of travel</li> <li>✓ Develop virtual Data Quality and Use plans</li> <li>✓ Disburse funding and resources to sub-national and facility levels in a timely manner</li> </ul>	<ul style="list-style-type: none"> <li>✓ Policy on minimum resource allocation thresholds required for data use activities and improvements</li> </ul>
	<b>Technical Role</b>  		






## Theory of Action Template

**Systems: I see that there are data reporting, analysis and communication systems in place that facilitate data use**

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to receive and have access to correct logistics data from all facility outlets (e.g., dispensary unit, lab, CBD, RCH, etc.) that I require to place orders, manage my stock and to complete required reports</li> <li>I need simple, efficient data tools that are reinforced by standardized clear SOPs</li> <li>I need a single platform which will enable me to collect all the required data at the health facility</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ User friendly data collection tools that capture all the required information from all facility outlets</li> <li>✓ Logistics Management Information Systems which are reflective of lower level workflows and supply chain systems (e.g., LMIS to capture push/pull delivery systems)</li> <li>✓ Data validation from tools to identify when data deviates from acceptable levels</li> <li>✓ Access to systems support documentation (or resources) if I have questions or issues</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Where systems are electronic, ensure there is offline capability to account for power or connectivity issues</li> <li>✓ Continuous/ongoing supervision/training to ensure staff are trained and stay up to date on proper systems use</li> <li>✓ Communication about any changes to the systems or SOPs related to systems</li> <li>✓ Strong, easy to access end-user support on systems</li> <li>✓ Concerns/feedback/suggestions for making systems more usable and reflective of workflows are addressed</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		
SUB- NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to receive and have access to correct logistics data from all district, regional, specialized hospitals, and facilities which are located in my jurisdiction for proper reporting and decision making</li> <li>I need information/data presented in a format where I know what to do with it</li> <li>I need a single platform which will enable me access all the required data with drill down functions to aggregate or disaggregate data as appropriate</li> <li>I need to have an expert who can debug and troubleshoot information systems</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ All users have appropriate accounts for supply chain systems</li> <li>✓ Guidelines on data triangulation across different health systems</li> <li>✓ Simple tools that are compatible with multiple national systems</li> <li>✓ Assign system roles and responsibilities for different actors at different levels</li> <li>✓ Standardized and comprehensive decision support tools/dashboards that are created using the system data with drill down functionality</li> <li>✓ Glossary of different data contained across different data systems</li> <li>✓ Standardized data elements/terms/KPIs across systems and prioritized for review</li> <li>✓ Data aggregation tool capable of pulling data from different sources and providing one-stop shop or an single reporting system that harmonizes data fed by multiple systems</li> <li>✓ System includes configurable thresholds and provides alerts/notifications when reached to prompt review/action</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Designated Data Manager/IT systems specialist role to debug issues in information systems</li> <li>✓ Systems Team/vendor to provide continued support &amp; improvements to the system</li> <li>✓ System generated in-built data quality and validation checks to flag data issues</li> <li>✓ Report generation capabilities in LMIS to help view and interact with data on a regular basis</li> <li>✓ System generated decision support tools/dashboards with relevant data visualizations based on the needs of the users</li> <li>✓ Adequate infrastructure and hardware</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to receive and have access to correct logistics data from all levels so I can use data in real time</li> <li>I need a data system with more automation of analysis so that data use requires less time and guesswork.</li> <li>I need an information system in place that aggregates and analyzes the right information.</li> <li>I need to see digestible reports from data review meetings</li> <li>_____</li> <li>_____</li> </ul>	<ul style="list-style-type: none"> <li>✓ SOPs to reflect data systems and current workflows which are updated on regular basis</li> <li>✓ People-centered data driven national team to regularly analyze supply chain issues and make strategic decisions to solve them</li> <li>✓ _____</li> <li>✓ _____</li> </ul>	<ul style="list-style-type: none"> <li>✓ Change management protocols to manage how changes or upgrades to data systems are rolled out</li> <li>✓ Documented change of managerial protocols for the existing LMIS in the country</li> <li>✓ National policies and procedures related to HIS governance (e.g., ensuring there are not multiple competing or duplicative systems, systems adhere to certain standards/requirements to facilitate interoperability) and master data management (systems defined facilities, products, geographic/administrative zones etc. consistently or that they are mapped between systems and how that data gets updated)</li> <li>✓ _____</li> <li>✓ _____</li> </ul>
	<b>Technical Role</b> 		

## Theory of Action Template

### Policies: I am supported by policies and strategies that guide data use

	I NEED	Processes, tools, and interventions to INSTILL SKILLS	Processes, tools, and interventions to SCALE & SUSTAIN SKILLS
FACILITY LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need to know that I will get supervision that include a review of my data use roles and skills</li> <li>I need to know that I will get feedback on the data I send, regularly and within a reasonable amount of time after submitting data</li> <li>I need the data I collect to inform policy</li> </ul>	<ul style="list-style-type: none"> <li>Virtual options for accessible tools for supervision, feedback and mentorship to reduce the cost and time burden of travel (example, texts, WhatsApp, an online portal, etc.)</li> <li>Guidelines and policy around standardized timeframes and format for sending feedback on data submitted by lower levels</li> </ul>	<ul style="list-style-type: none"> <li>Policy mandating supportive supervision and mentorship that includes an avenue for reporting/ taking action when this support is not provided</li> </ul>
	<b>Technical Role</b>  		
SUB- NATIONAL LEVELS	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need a government mandate outlining the time spent at my workstation so that I am there frequently enough to review data</li> <li>I need to be consulted as part of the design of data use interventions to ensure it supports program priorities</li> <li>I need a clear data use strategy issued and disseminated by the national MOH embedded</li> </ul>	<ul style="list-style-type: none"> <li>Guidelines that outline how often health system staff can be taken away from their day-to-day tasks for things like trainings, meetings, etc. that are not deemed essential</li> <li>Subnational steering committee/taskforce on data use that feeds into National Data Use Strategy</li> <li>Identify SC data use champions or taskforce across related departments (Finance, HR, IT) who champion data use interventions</li> </ul>	<ul style="list-style-type: none"> <li>Mandates which say that all NGOs/donors should adopt user-centered designed methods to implement data use related programs and interventions</li> </ul>
	<b>Technical Role</b>  		
NATIONAL LEVEL	<b>Administrative Role</b>  <ul style="list-style-type: none"> <li>I need a National Data Use Strategy that define data use objectives and expectations</li> <li>I need to see that government policies are updated to reflect data use dependencies and needs (Procurement, Financing, HR, IT)</li> <li>I need policies that clearly outline which job functions at all levels of the health system play a role in supporting data requirements</li> </ul>	<ul style="list-style-type: none"> <li>Setting of yearly data use “objectives and key results” to feed into a national vision for SC data use</li> <li>National steering committee/taskforce on data use that feeds into National Data Use Strategy</li> </ul>	<ul style="list-style-type: none"> <li>Development and dissemination of a National Data Use Strategy</li> <li>Standards for information systems and reporting platforms</li> </ul>
	<b>Technical Role</b> 