



Health System Strengthening Evaluation  
Collaborative - WG1 Focus Area 3

# **HSS evaluation - conceptual model and monitoring & learning tool**

July 2022

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# 1. Introduction

## 1.1 Background on the Health System Strengthening Evaluation Collaborative

Health systems strengthening (HSS) is widely understood to be key to achieving universal health coverage and to ensuring robust responses to health emergencies. In recent decades, global health investors have put more attention and investment towards HSS, leading to accelerated efforts to evaluate HSS policies and programs initiated by those investments. Yet, a common definition and framework for how to evaluate HSS interventions remains elusive, hampering efforts to strengthen, coordinate and amplify HSS programs.

The Health Systems Strengthening Evaluation Collaborative (HSSEC) brings together key global and national stakeholders to suggest ways to strengthen the quality of evaluations of health systems strengthening (HSS) investments in LMICs and to improve coordination across stakeholders in this space.

### HSSEC objectives

The Collaborative is based on the belief that the goal of HSS evaluations is to improve HSS investments and to move HSS evaluation beyond its current fragmented form, providing leadership and commitment for advancing and changing ways of working must come from the joint action of three groups of stakeholders: (i) country-level stakeholders including governments, practitioners, and communities, (ii) donors that fund health systems strengthening (HSS) and HSS evaluation, and (iii) evaluators and academics who are involved in HSS evaluation. The Collaborative works by bringing these stakeholders together and the specific approach is designed around the concept of Collective Impact<sup>1</sup>. Stakeholders are convened to think differently about how they can approach HSS evaluation and work collectively to build and execute a shared agenda around this topic.

The objectives of the Collaborative include:

- Developing a shared approach to understanding and evaluating HSS which will better support investments, interventions, and ultimately, people's health and wellbeing
- Supporting improved approaches to organising and doing HSS evaluations
- Developing shared guidelines and frameworks for organising and doing HSS evaluations, perhaps including a common framework that can be officially endorsed by key stakeholders
- Making recommendations for real world testing/piloting of innovative HSS evaluative approaches

### HSSEC Structure and Working Group 1 focus areas

The Collaborative is organised in two working groups (WG), each with a diverse membership encompassing different relevant stakeholders and each engaged in a series of activities on relevant themes:

- 'Shared Understandings for Language, Methods & Outcomes in HSS evaluation'
- 'Understanding HSS Evaluation from a Country Perspective'

In particular, initial discussions within WG1 have articulated a need for exploration of four critical areas (Figure 1):

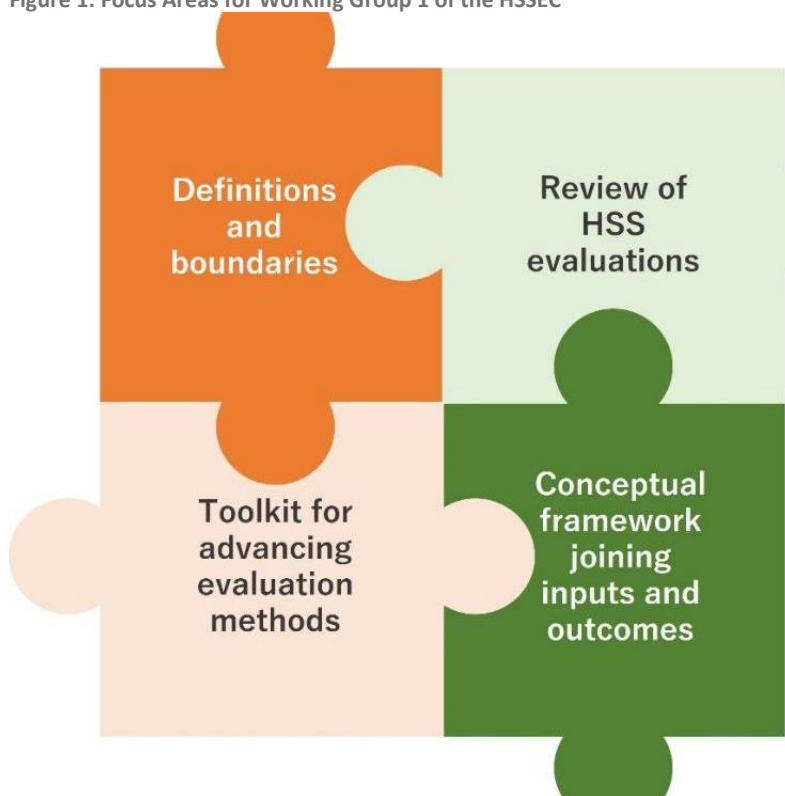
1. Some degree of shared language/understanding around the topic of "what is HSS?"
2. More useful frameworks, perhaps with more overarching scope (is there a common overarching framework and/ or language that can help to bring together the work of different stakeholders?)

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<sup>1</sup> Kania J & Kramer M, Essentials of Social Innovation-Collective Impact. [https://ssir.org/articles/entry/collective\\_impact#](https://ssir.org/articles/entry/collective_impact#)

3. Greater agreement around how to measure outcomes, and what is acceptable as an outcome measure(s) for HSS evaluations.
4. Wider discussion and thinking around different methods and approaches to HSS evaluation dependent on what type of HSS evaluation questions are being asked.

Figure 1: Focus Areas for Working Group 1 of the HSSEC



## 1.2 Objectives and output for Focus Area 3

The present report summarises the work jointly carried out by a subgroup of WG1, focusing on the third area of exploration (dark green in the figure above). The overall objective of Focus Area 3 is to develop a framework to support HSS conceptualisation and evaluation.

The rationale for this work is the recognition that one of the challenges of HSS evaluation is that it is difficult to discern the role of HSS investments in triggering or contributing to systems level change, and the consequent need for strong intermediate systems indicators, frameworks or causal pathways to address this challenge.

Specific objectives for the work in Focus Area 3 are to:

1. Contribute to new or consolidated thinking on how health systems develop and the potential role of HSS investments (interventions and strategies) in that process
2. Develop a conceptual framework to capture how systems strengthening takes place – articulating how the known "inputs" (from both development partners and countries) are joined to the desired "outcomes"
3. Understand the extent to which an intervention or strategy can contribute to HSS
4. Provide a resource for future HSS programmers and evaluators to base Theory of Changes (ToCs) on and to identify intermediate indicators, including for evaluative purposes

The expected output is a conceptual framework, which can support thinking about pathways of change in HSS and how to evaluate HSS effects of (1) short term and focused investment, and (2) overall health system reforms (detailed Terms of References are available in Annex 1).

The process for focus area 3 has been guided by a subgroup of WG1, composed of Abdallah Bchir, Alex Rowe, Anna Rapp, David Hotchkiss, Eric Sarriot, Frank Wafula, Rachel Marcus and Anwer Aqil,

Sjoerd Postma, who provided technical expertise. The process of delivering the work has been managed by Natasha Palmer, Sophie Witter, Maria Bertone, and Krista Kruja.

## 2. Methods

### 2.1 Overview of approach and phases of the work

The Terms of Reference outlined some specific elements of the work and defined a general approach to it. In practice, the group agreed on the following steps:

1. Conduct a qualitative, critical over/review of the literature on health systems, HSS and HSS evaluation frameworks, also reflecting on the role of systems thinking in the field of HSS evaluations and including an analysis of the components of HSS frameworks to develop a guiding approach or framework, adaptable to different HSS evaluations, based on review findings and discussions/inputs from group.
2. Prepare a synthesis of 'intermediate outcome indicators'/process indicators, with an understanding of what is meant by these.
3. Develop a case study of one type of HSS investment applying the theoretical work to an empirical case (although it was agreed that the process would be iterative and done in parallel with #2 in order to strengthen the theoretical work with the findings from the empirical application).

### 2.2 Critical over/review of the literature

The review of the literature took a purposeful, non-systematic approach, with a focus on identifying existing seminal work, including building on available syntheses and specifically identifying gaps and pieces of recent, new thinking that are relevant for the specific aims of the work. As such, the literature search was based on existing knowledge of the group gathered through previous work by sharing relevant documents and materials, also based on work conducted under other Focal Areas of the HSSEC. In addition, screening of references within identified documents was conducted, as well as additional searches on organizational websites (USAID, WHO, UHC2030, FCDO, World Bank). The focus on the search included (i) conceptual frameworks relating to the health system and its elements or components; (ii) health system strengthening frameworks; and (iii) frameworks for monitoring and evaluation (M&E) of health systems strengthening. Literature reviews and syntheses on these topics were also included.

A total of 39 documents were identified and reviewed. Conceptual elements and frameworks were extracted, as well as key reflections on health systems, HSS and HSS M&E in order to understand how the discourse has evolved over time, what are the main gaps in the literature and what new elements of thinking can be built upon with the aim of developing a framework for HSS conceptualisation and evaluation.

### 2.3 Development of an HSS framework and identification of process goals

Building on the findings of the review and iterative inputs and refinements from the working group, further conceptual development was undertaken in order to develop a high-level, overarching model of health system strengthening adaptable to the evaluation of different HSS approaches, ranging from specific interventions to broader health system reforms<sup>2</sup>. This model aimed to identify key nodes of the health system strengthening process, allowing for complexity and non-linearity.

Further to this conceptual development and based on the review of the literature and group reflections, the 'middle' area of health system process goals, encompassing the positive/negative, intended/unintended effects of HSS on the broader health system strengthening process, were identified as a promising area for development. Again, based on literature and iterative discussions with different groups, a list of health system process goals was developed and operationalised into

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<sup>2</sup> Sjoerd Postma (2021), *Exploring the 4S Framework for Health Systems Strengthening*. Presentation for the HSSEC, Sept 2021.

a list of health system process goals which makes the core of the theoretical proposal of this work and the proposed tool for HSS monitoring and learning.

To support the iterative discussions, different groups met at different times to input into the reflection, provide feedback and validate progress made:

- Regular internal meetings of core team working on focus area 3 (SW, NP, KK, MB)
- Sub-group of WG1 working on focus area 3 met on August 17<sup>th</sup>, October 14<sup>th</sup> and November 30<sup>th</sup> 2021
- Working Group 1 met to present/discuss this work on September 8<sup>th</sup>, October 13<sup>th</sup> 2021, January 25<sup>th</sup> 2022.
- Meeting with members of UHC2030 Technical Working Group (TWG) on Health Systems Assessments on September 22<sup>nd</sup> 2021
- Meeting with co-authors of the Witter et al (2019) report<sup>3</sup> on November 19<sup>th</sup> 2021
- Regular updates to Executive Committee and joint WG1 and WG2 meetings.

## 2.4 Application of the health system process goals to case studies

The last step for this work consisted in the development of case studies to illustrate the application of the tool developed (i.e., the list of HS process goals) to real-life HSS interventions, in order to assess the potential value of the tool and identify lessons learned on the process of applying it to the evaluation of an HSS intervention.

Initially, one case study was planned, but it was decided to identify two case study in order to expand the potential for identifying value and lessons learned through different cases. Case study selection was done in collaboration with WG1 with the aim of building on the experience and HSS interventions that group members were familiar with, while at the same time purposefully maximizing differences in the HSS approaches (for example, in terms of stage of development (design vs implementation), geographical area, funder, focus of intervention, etc.). The final selection included two case studies:

- a case study based on the Global Fund's Service Delivery Innovations Strategic Initiative, which is currently at design stage. The focus on the intervention is on HRH planning, Quality Improvements through integrated supportive supervision, and Leadership & Management strengthening at all levels with emphasis on collaborating with other Strategic Initiatives (e.g., TB, HIV), and it is due to be implemented in five countries of West and Central Africa (Chad, DRC, Mali, Niger, Nigeria);
- a case study of IADB's Salud Mesoamerica Initiative (SMI) which has been implemented in 8 countries between 2011 and 2021, and is therefore in the final stages of implementation (further details on the intervention are provided in Annex 5.2).

The methodology followed to develop the case studies included a preliminary sharing of all available information on the intervention from the focal point (Alex Rowe, for the first study, and Diego Rios Zertuche for the second). The documentation shared included 2 documents for the first study which is still at design stage, and 13 documents for the second (including reports, assessments and evaluations of specific elements or aspects of the intervention). MB extracted data from those documents using the list of HS process goals as framework and prepared an initial draft. The initial draft was then shared back with the focal points and their colleagues for editing, add-ons and validation (via email exchange and discussion over meetings - on November 3<sup>rd</sup> and December 17<sup>th</sup>, 2021). In addition, a reflection on the process was held jointly to identify strengths of the approach and specifically what it had helped with, as well as point out potential challenges.

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<sup>3</sup> Witter S, Palmer N, Balabanova D, Mounier-Jack S, Martineau T, Klicpera A, Kruja K, Jensen C, Pugliese Garcia M, Gilson L (2021), *Evidence review of what works for health systems strengthening, where and when?*. ReBUILD and ReSYST research consortia.



We note that the process of developing the case studies was somewhat constrained in terms of time and information available, and therefore the case studies represent a preliminary application of the list of HS process goals, done for illustrative purposes, rather than a full, in-depth assessment of the HSS interventions of concern. However, we point out below (section 6) to learnings that this process (though imperfect and preliminary) has helped generate.

### 3. Critical review of the literature

We conducted a critical overview/review of the literature on conceptual frameworks relating to the health system, health system strengthening frameworks, and frameworks for monitoring and evaluation (M&E) of health systems strengthening. The results of the literature review and an overview of the conceptual frameworks are presented in Annex 2. In this section, we focus on highlighting the key findings and gaps that we had identified based on the literature review and proposing a way forward for our work.

#### 3.1 Key findings and gaps in the existing literature and ways forward

Overall, the review of the literature points to the fact that there exist a large number and a very diverse “array” of frameworks to conceptualise health systems and health system strengthening, which have been developed over the last three decades (one review identified 41 health system and HSS frameworks<sup>4</sup>).

Authors such as van Olmen et al<sup>5</sup> point to the political and ideological nature of health system frameworks, which is influenced by the context in which they have emerged. As the authors stress, “frameworks on health systems are products of their time, emerging from specific discourses. They are purposive, not neutrally descriptive, and are shaped by the agendas of their authors, [...] partly in line with prevailing paradigms and partly as a response to the very different needs of their developers”<sup>6</sup>. In this sense, a general trend that is apparent over time is the movement away from mechanical and deterministic frameworks focused on functions and ‘hardware’ elements of the health system towards an increased recognition of dynamics between elements, non-linear, complex process and system thinking. Software elements, such as ideas and interests, relationships, interpersonal dynamics, and power, trust, social values, norms and formal and informal institutions, etc. are increasingly featured, and more attention is given to the role of critical actors (for example, communities) and overlooked elements, such as social determinants of health. This is also reflected in more recent HSS frameworks<sup>7,8</sup> which give attention to more integrated HSS interventions, going beyond the building blocks seen as separate and self-standing, to look at cross-cutting approaches and elements.

Another finding concerns the fact that, despite the diversity of approaches, perspectives and aims of each of the frameworks, there are areas of complementarity and overlaps. This is particularly the case when focusing on health system goals (for example, around better health, financial protection, responsiveness, satisfaction, etc.) and principles or intermediate objectives (equity, efficiency, sustainability, quality, access, coverage, safety, choice). Context is also a recurrent feature, focusing on elements such as demography, epidemiology, politics, economy, technology. In some cases there is also some level of overlap in terms of processes (or control knobs) (resource creation, resource allocation, payment, organisation, integration, regulation, behaviour) and building blocks or functions (services, HRH, health information, technology and commodities, demand generation, financing, governance)<sup>9</sup>.

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<sup>4</sup> Hoffman S, Røttingen J-A, Bennett S, Lavis J, Edge J, Frenk J (2012), *Conceptual issues related to Health Systems Research*. Background Paper on Conceptual Issues Related to Health Systems Research to Inform a WHO Global Strategy on Health Systems Research. Geneva: Alliance for Health Policy and Systems Research

<sup>5</sup> Van Olmen J, Marchal B, Van Damme W, Kegels G, Hill P (2012), Health systems frameworks in their political context: framing divergent agendas. *BMC Public Health* 12:774.

<sup>6</sup> Van Olmen et al (2012), cit.

<sup>7</sup> USAID (2021), *USAID Vision for Health System Strengthening 2030*, Washington DC: USAID.

<sup>8</sup> Witter S, Palmer N, Balabanova D, Mounier-Jack S, Martineau T, Klicpera A, Kruja K, Jensen C, Pugliese Garcia M, Gilson L (2021), *Evidence review of what works for health systems strengthening, where and when?*. ReBUILD and ReSYST research consortia.

<sup>9</sup> Hoffman et al (2012), cit.

Shakarishvili G, Atun R, Berman P, Hsiao W, Burgess C, Lansang MA (2010), *Converging Health Systems Frameworks: Towards A Concepts-to-Actions Roadmap for Health Systems Strengthening in Low and Middle Income Countries*. *Global Health Governance*, 3:2.

On the other hand, frameworks and approaches have very different aims. A tension seems to emerge (although not explicitly unpacked) between tools that are meant for the assessment of externally/donor-driven HSS interventions with a focus on (intervention-specific) managerial practices and (in some cases) harmonization between donors, and others that are aiming to provide a general assessment of HSS at country level, going beyond the influence of specific interventions. Resolving this tension is particularly important to develop a tool that can be applied to multiple situations and for diverse purposes.

In terms of monitoring and evaluation (M&E) of HSS, the reviews point to the fact that most of the focus of the existing HSS M&E frameworks is on HS outputs, health outcomes and impact. The lists of indicators for M&E which are available (for example, by WHO<sup>10</sup> and USAID<sup>11</sup>) reflect this point and are often organised along the building blocks and reflect a “service readiness” perspective.

As detailed in Annex 2, the findings of the review<sup>12</sup> allowed us to identify some gaps in HSS conceptualisation and assessment and propose some aspects that should be focused on for the way forward. In particular, we acknowledge that despite the clear progress in much of the theoretical work to move beyond the building blocks, the understanding of HSS interventions is still often organised along the lines of the building blocks with a focus on hardware elements. Similarly, much focus of practical, operational guidance to measure HSS progress is done along those lines. Our view is that there should be more attention given to software elements of health systems and how they interact, and these should be further integrated into HSS evaluation approaches.

Additionally, there is often a focus in HSS evaluation on elements that are quite far down the line (almost an end-point) in the HSS process, such as HS outputs, health outcomes and impacts. While these can be relatively easily agreed based on the existing literature, there is a need to focus on elements that are more ‘upstream’. These elements could be envisaged as *markers* of HSS progress and have an explicitly normative content, similarly to the “desirable attributes” of the WHO Health Financing Progress Matrix<sup>13</sup>. As further explained below (section 5.2), the rationale for focusing on these elements stems from our belief that this allows a more rapid assessment of whether and how HSS is happening by identifying some *proxies* or *signs of HSS*. In addition, looking at elements capturing broad dimensions of HSS (including hardware and software elements) allows moving beyond the building blocks and a functional, programme-specific approach focused on outputs, to capture HSS processes more comprehensively, including spill-over effects of interventions and their contribution to meeting overarching health system process goals and therefore ensuring health system strengthening. The aim here is to achieve a better understanding of the system itself and not only how it generates outputs, but also how it sustains them overtime and across dimensions and levels.

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<sup>10</sup> WHO (2010), *Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies*. Geneva: World Health Organization.

<sup>11</sup> Diana M, Yeoger V, Hotckiss D (2017), *Health Systems Strengthening – A Compendium of Indicators*. Chapel Hill: MEASURE Evaluation, USAID

<sup>12</sup> Witter et al (2021), cit

Papanicolas I et al (forthcoming), *Health System Performance Assessment: A Framework for Policy Analysis*. Geneva: UHC2030/WHO

<sup>13</sup> Jowett M, Kutzin J, Kwon S, Hsu J, Sallaku J, Solano JG (2020), *Assessing country health financing systems: the health financing progress matrix*. Geneva: World Health Organization, Health financing guidance, no. 8.

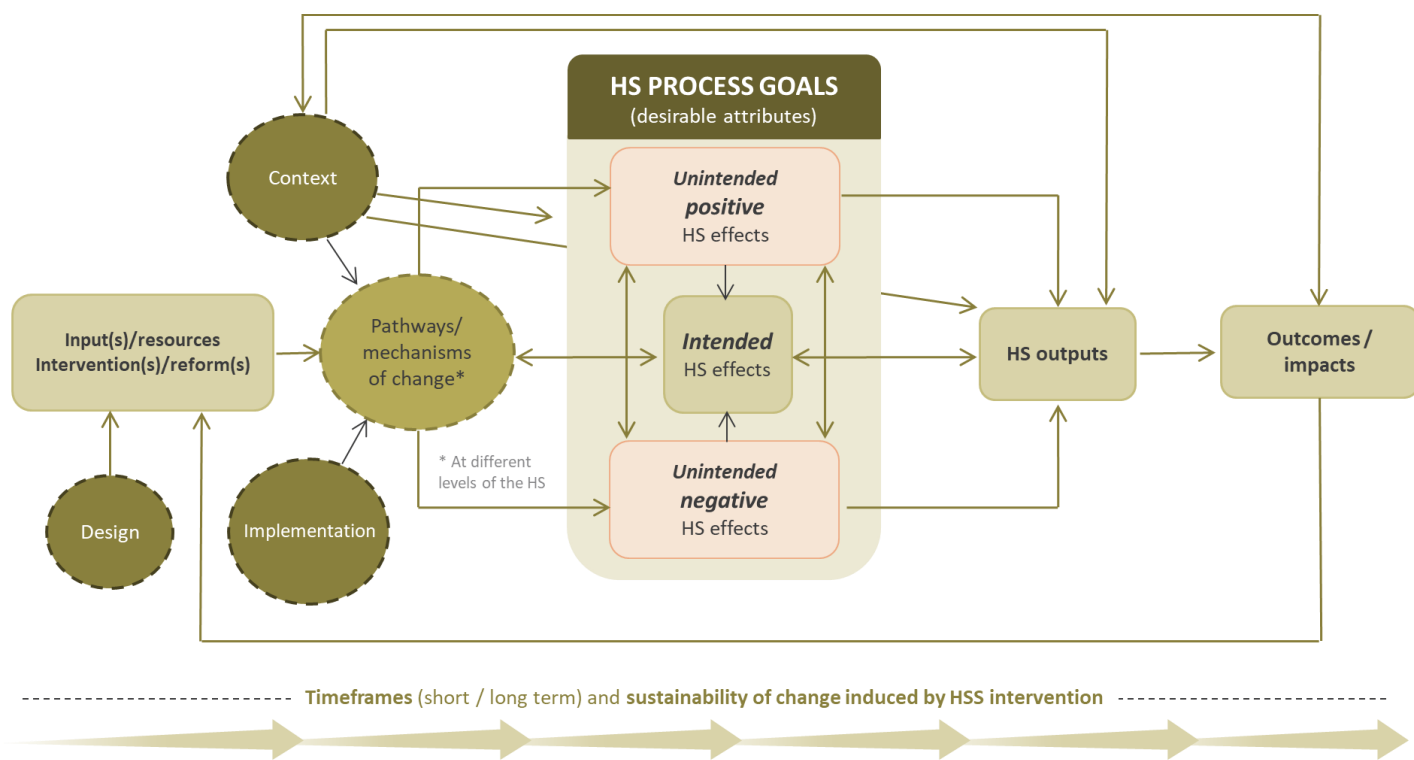
## 4. Conceptualising health system strengthening

Following our literature review, the second step of our work aimed to build a high-level, overarching model of health system strengthening, building on the findings of the review as outlined above and on an iterative process of discussion and refinement with the sub-group members. We describe below the HSS model and its key elements and the relations between them. We then go on to further explain the rationale for our approach to the HSS model and how it serves as a basis to identify the area of focus for our HSS monitoring and learning tool.

### 4.1 HSS model

The HSS model that we developed for this work is represented in Figure 2 below. It aims to depict a high-level, overarching representation of health system strengthening processes. It is generally based on the HSS framework presented in Witter et al (2021)<sup>14</sup> by identifying the key high-level elements in the HSS process, but goes beyond the linear approach in that proposal to explicitly acknowledge and allow for non-linearity and complexity of relations between elements. Compared to that document, this proposal also takes a more literature-grounded and iterative (through group discussions) approach to developing the HSS model and subsequently the HS process goals.

Figure 2: Health system strengthening model



The model draws a visual path of the ways in which health systems are shaped and highlights essential steps and elements that influence health system strengthening. While we acknowledge that there are limitations in trying to capture complexity, multiplicity and context-specificity of HSS process, we have aimed to keep the model purposefully simple. The advantage of the simplicity is also that the model can represent a general and highly generalizable situation and is therefore adaptable to the evaluation of different HSS approaches, ranging from specific (narrow) HSS interventions to broader health system reforms.

<sup>14</sup> Witter S, Palmer N, Balabanova D, Mounier-Jack S, Martineau T, Klicpera A, Kruja K, Jensen C, Pugliese Garcia M, Gilson L (2021), *Evidence review of what works for health systems strengthening, where and when?*. ReBUILD and ReSYST research consortia.

## 4.2 Key elements of the HSS model

From left to right, the HSS model includes some key elements which are described below:

- *Health system inputs*: include the changes made in the health system, for example depending on the intervention of focus (which can be one or multiple), or the health system reforms. Health system inputs are provided according to a specific *design* – for example, the design of an intervention or reform (e.g., capacity strengthening for health workers could be provided through pre-service training, in-service training, or supportive supervision, and focused on different cadres, etc.).
- *Pathways or mechanisms* through which change in the health system happens, which are numerous and context-specific.
- *Processes of HSS and effects of HSS on the health system*, which can be positive or negative, intended or unintended. The health system processes and effects are influenced by health system inputs (through the mechanisms of change) which can be the intervention(s) or reform(s) of focus for a potential evaluation. Context also influences health system processes and effects. Importantly, while an intervention or reform might be focused on one specific element or process of the health system, it is likely that it would have unintended or spill-over effects on the broader health system (including its hardware elements or functions, but also its software, intangible elements), which might be positive or negative, and contribute (or not) to achieve overarching HSS. As highlighted by the findings of our literature review, for any HSS assessment purposes it is essential to capture the health system effects in a broad and comprehensive way to understand if and how health system strengthening is happening.
- *Health system outputs* are those changes in the structural elements of the health system that are produced by the health system inputs (interventions or reforms), through the mechanisms of change and the health system processes and effects. Health system outputs tend to refer to (quantitatively) measurable, tangible outputs at health system level and are sometimes called “intermediate objectives”. Key dimensions to assess change in health system outputs can be largely drawn and agreed on building on the existing literature, including for example WHO<sup>15</sup> and USAID<sup>16</sup> guides. They are often organised by building block or function of the health system, and are likely to include areas such as quality, safety, availability, accessibility, equity, acceptability, affordability, user experience, resource optimisation.
- *Outcomes and impacts* are the broader changes observed at the population level which are also often quantitatively measurable, although attribution to specific reforms and interventions can pose problems in many cases. Outcomes can include elements such as increased service utilisation and coverage, responsiveness, people centredness, efficiency, while impacts (or final goals) could include reduced risk prevalence, improved health outcomes, improved equity, social and financial risk protection, health security and health system resilience.

Note that the elements with dotted lines (design, implementation, context, pathways and mechanisms of change) are elements that we acknowledge are essential to shape health system strengthening processes as well as outputs, outcomes and impact. However, those are the ones that are (by definition) context-specific and therefore multiple and numerous. While recognising their central role and influence, we choose not to unpack them further in this overarching HSS model and shift our focus to the HS process goals (as explained below). We believe that the process

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<sup>15</sup> WHO (2010), *Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies*. Geneva: World Health Organization.

<sup>16</sup> Diana M, Yeoger V, Hotckiss D (2017), *Health Systems Strengthening – A Compendium of Indicators*. Chapel Hill: MEASURE Evaluation, USAID

of building evidence around whether and how HS process goals are reached would necessary also shed light on how elements of the context, design and implementation features and specific mechanisms of change have contributed to that achievement.

Finally, the HSS model acknowledges the importance of timeframes and of the sustainability of change introduced by any health system inputs. The length and the scale of the implementation are essential to determine the sustainability of change and have a major impact on health system change at all levels (both in terms of health system process and effects, as well as in terms of outputs, outcomes and final impact). However, we consider sustainability, through adapted timelines and scale of interventions, to be both a feature of the health system input(s) (e.g. of a HSS intervention) as well as a feature of a ‘strong’ health system<sup>17</sup>.

We also stress that, while not systematically present in all interventions, such features are essential, a sort of “requirement” for interventions to achieve actual health system strengthening<sup>18</sup>. As such, timelines and sustainability of change introduced by an intervention are depicted as an element fundamental to, and underlying the HSS model.

### 4.3 Purpose of the HSS model

The purpose of the HSS model described above is to crystallise our understanding of health system strengthening process, highlighting key elements, pointing to those elements which have been already explored and discussed in the literature, and identifying areas for further conceptual work. The HSS model is therefore not to be considered as a stand-alone HSS framework (although it might be used as such, if needed), but rather a way to help us further our thinking and a step toward the development of an approach to HSS evaluation.

The HSS model has been particularly instrumental to support our reflection and decision to focus on a somewhat overlooked level of the HSS processes, which is the one which sits between the inputs and mechanisms of change and the health system outputs, and which we have referred to above as health system processes and effects. It is at this level that we believe it is beneficial to focus the attention for HSS evaluation, and we have therefore developed a list of *health system process goals*, which aim to capture progress towards normative ideals of what health systems should look like (in line with the desirable attributes” of the WHO’s health financing matrix). We describe further the HS process goals, their definition and use in the chapters below.

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<sup>17</sup> In this sense, sustainability per se is not in the list of HS process goals (which are described below) as it is a result of a strong system, rather than visible in the short term within the system itself. We also aim for the HS process goals to be applicable to the health system as a whole, and not only seen through an intervention-specific lens. This provides an additional reason for considering timeframes, scale and sustainability as a feature that underlies the HSS model, rather one of the HS process goals.

<sup>18</sup> Sjoerd Postma (2021), *Exploring the 4S Framework for Health Systems Strengthening*. Presentation for the HSSEC, Sept 2021.

## 5. Health system process goals

As described above, the HSS model allowed us to identify a promising area of focus for HSS evaluation, i.e., the ‘middle’ area of health system processes. Based on this, we then worked on developing a list of HS process goals, based on literature and iterative discussions with the sub-group and WG1. The section below presents the HS process goals in detail and reflects on how they can be operationalised into a list, which can be used for monitoring of, and learning on HSS processes.

### 5.1 What are health system process goals?

We conceptualised HS process goals as both markers of progress towards health system strengthening and features of a strong health system. They are worded using normative, aspirational language (i.e., as an active sentence rather than as an indicator or an area for assessment) as they are meant to represent normative, desirable features towards which the health system should aim and towards which any health system intervention or reform should contribute. Due to their aspirational nature, some goals might sound unrealistic for discrete HSS interventions, but the aim is not to assess whether the goal has been fully achieved or not, but rather to provide information about the “direction of travel”.

HS process goals are high-level and systemic, and are not meant to be programme- or intervention-focused. As such, it is possible that some might be less relevant than others for each specific intervention. In some cases, it might be possible that other interventions (with a different focus) exist which work in a complementary way to ensure comprehensive progress towards HS process goals. Considerations of such complementarities can be helpfully included in the evaluation of HSS programmes/interventions done using the list of HS process goals (see sections 5 and 6). However, overall each HSS intervention should aim at making progress towards each of the goals, or at least *doing no harm*, i.e., not making the health system worse in relation to other goals (less prioritised or not targeted by the intervention). HSS interventions should actively keep in mind all HS process goals, at design or implementation stage, in order to ensure that broad, comprehensive HSS is enacted. While the relevance of each goal in relation to a particular HSS programme or intervention can vary, the “do no harm” principle should always apply.

The list of HS process goals is not meant to be comprehensive, but broad and indicative. Based on the review of the literature and expert opinions, it covers areas that are thought to be essential for health system strengthening and proposes markers for HSS.

### 5.2 Why focus on HS process goals for HSS evaluation?

The rationale for focusing on HS process goals for HSS evaluations stems from some of the considerations that we have highlighted as a result of the literature review. HS process goals allow to look at markers of progress and performance that are more ‘upstream’ compared to HS outputs, outcomes and impacts. This allows a more rapid assessment of whether and how HSS is happening (or will happen – if tool is used prospectively, see below), by using the HS process goals as a *proxies* or *signs of HSS*.

In addition, by focusing on broad dimensions of HSS with reference to processes that have to do with both hardware and software elements of the health system, the HS process goals allow moving beyond the building blocks and a functional, programme-specific approach to capture HSS more comprehensively. This also allows capturing spill-over effects of interventions, their contribution to meeting overarching health system process goals and therefore ensuring health system strengthening.

### 5.3 List of HS process goals

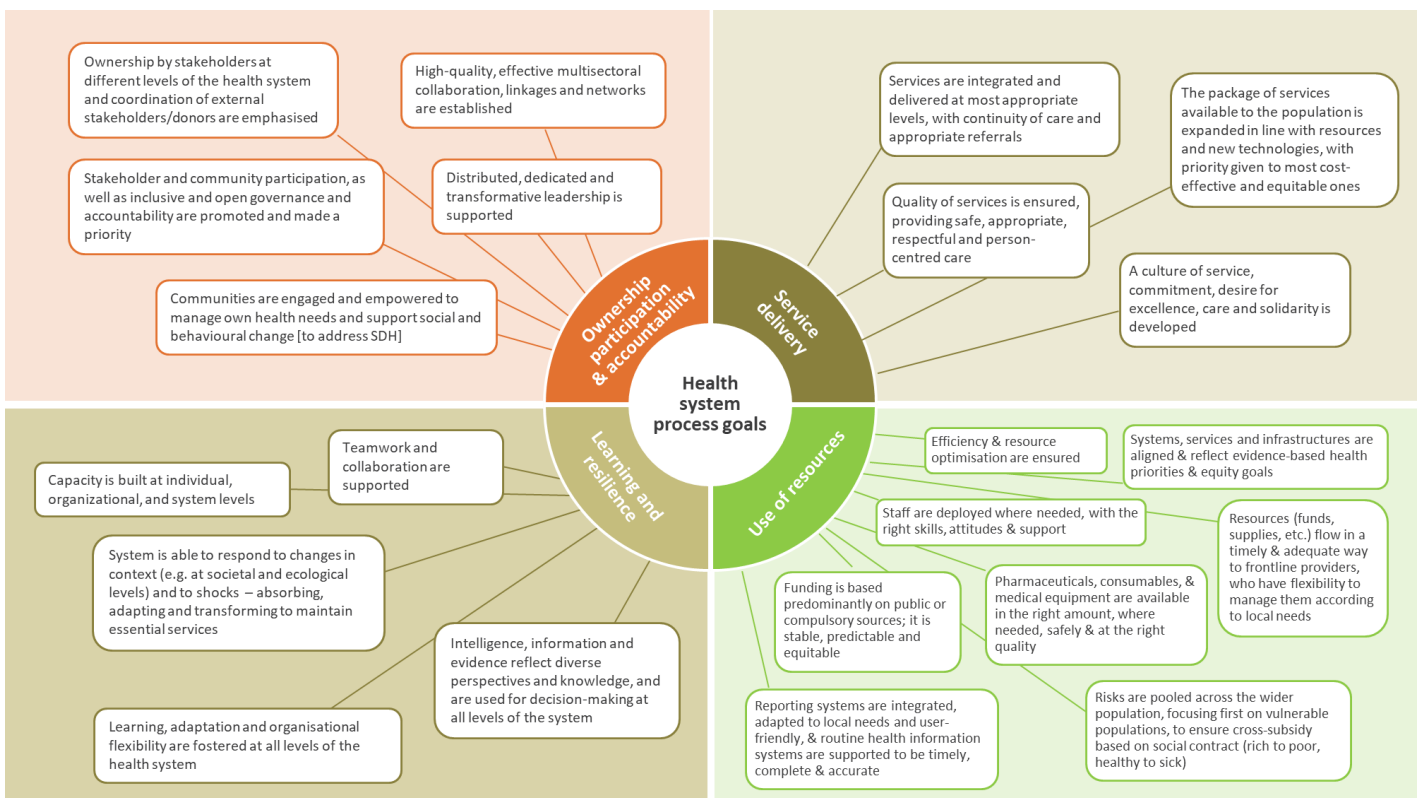
Figure 3 below provides an overview of the HS process goals. A total of 22 goals have been selected, and they have been organised under four broad domains, covering “ownership, participation and accountability”, “learning and resilience”, “use of resources”, and “service delivery”.

Annex 3 provides a more detailed description of each goal and also includes practical examples of what progress towards each goal might look like, or of types of evidence that HSS intervention could provide to illustrate progress towards each HS process goal. However, it is important to note that examples are only indicative. As further described in the section relating to the case studies, each HSS intervention to which the list of HS process goals might be applied would be able to identify different examples of whether and how progress towards each goal is made. Importantly, the focus is much more on how things are done, rather than what exactly is done.

In addition, reference to empirical examples, available in the literature, of approaches and intervention that ensure progress towards each goal, and how the goal contributes to HSS more broadly are included for each goal to provide an evidence-based justification to the inclusion of each HS process goal, thus making the proposition stronger and more grounded.

Annex 4 provides a list of literature and sources that were drawn upon for the development of the list of HS process goals. However, it must be stressed that the process was iterative and the list has undergone several round of revision and refinement so that the original sources (for example, in terms of language and terminology used) are now modified.

Figure 3: Health System Process Goals



### 5.4 Operationalising the health system process goals for HSS evaluation

We stress that, as conceptualised, the HS process goals aim to capture signs of HSS and features of strong health systems in a broad manner, at systemic level (i.e., the goals are not specifically intervention-oriented). However, importantly, the list of HS process goals can also be operationalised for HSS monitoring, evaluation and learning, and applied to the assessment of HSS



interventions. In the section below, we provide two examples of how the list of HS process goals can be applied to existing HSS interventions, and what we have learned from this application. Here we present some general reflections on the list of HS process goals, how it has been operationalised for HSS evaluation and how it can be potentially used.

As illustrated by the case studies below, the list of HS process goals has proven to be a helpful *tool for monitoring of, and learning* on HSS processes. By applying the list to an existing intervention, one is able to assess the “direction of travel”, i.e., whether progress has been made (or can be made), and how, towards each HS process goal. The ‘how’ questions emerged as a core element of the application of the list of HS process goals, as the exercise of applying the list revolves around trying to unpack and explain the pathways that lead to (positive/negative/partial) impact on each goal. Because of this, as well as due to the aspirational nature of the HS process goals, it is unlikely that progress can be quantitatively measured, assessed with yes/no answers, specific indicators or benchmarks. HSS evaluation against the list of HS process goals requires rich, qualitative evidence, not only to establish the level of progress towards HS process goals, but also to understand the pathways by which progress has been achieved.

As a result, the list of HS process goals functioned more effectively as a tool for planning, monitoring, learning and formative evaluation than for summative evaluation focused on accountability. This has at least two implications: (i) the list can be used for both retrospective and prospective evaluation (i.e., for interventions that are concluded, ongoing or being planned), or more generally for reflections on the direction of health system development; (ii) the list of HS process goals is best applied in a participatory way by a group representing different views and perspectives, rather than one external/internal evaluator.

Concerning the first point, our case study application confirmed that the list of HS process goals can be successfully applied prospectively during the designing/planning stage of a HSS interventions (see Global Fund’s case study below and in Annex 5.1). When applied prospectively, the list of HS process goals allows, first, consideration of issues in relation to design (e.g., it encourages planners to make explicit the hypotheses that underlie potential pathways/mechanisms of change to positive impact on HSS, to reflect whether the programme is broadly going to have positive impacts on HS process goals, to highlight (potential) unintended effects and/or to identify gaps where design could be improved) and, secondly, informs future monitoring by highlighting *ex ante* likely areas of impact to be considered and then monitored during implementation. Similarly, it can be applied by a planner, project officer or implementer the implementation phase to check progress and keep a focused attention on those elements. When applied retrospectively during evaluation/assessment of (ongoing or past) interventions, the list of HS process goals allows reflection on lessons learned and exploration of pathways or mechanisms of change, addressing the question of why/how progress happened (or not) on some HS process goal, and how (broadly) progress towards HSS has been made.

The second implication of the essentially qualitative nature of the HSS assessment process done by applying the list of HS process goals is that, while the tool can be still usefully applied by a single planned or project officer/implementer for the purposes of planning or managing the project and its implementation, the tool is best applied (especially for assessment purposes) in a participatory, contextual and dynamic manner - ideally, at multiple points during planning/design and implementation stages to keep a check on the signs or markers of HSS and how they evolve over time. This is because, for the assessment to be complete, realistic and constructive, it has to reflect multiple views and perspectives.

For this reason, the list of HS process goals also has the potential to become a tool to support learning, by opening an inclusive space for policy dialogue and exchange between stakeholders and actors who have been involved in the intervention in different roles and positions – including, for example, funders, implementers, external evaluators, local counterparts at different levels of the (health) system and beneficiaries. The question of ‘who participates’ in the evaluation process using the list of HS process goals then becomes essential to the findings, the robustness and usefulness of the evaluation itself.

## 6. Case studies

The last step for this work consisted in the development of case studies to illustrate the application of the tool developed (i.e., the list of HS process goals) to real-life HSS interventions, in order to assess the potential value of the tool and identify lessons learned on the process of applying it to the evaluation of an HSS intervention. In this sense, the case studies worked as a “heuristic tool” to test whether the HSS can work in practice, and whether any amendments, improvements or clarifications should be made. Indeed, the development of the case studies was undertaken in parallel to the process of developing the HS process goals list and it allowed for further reflection and refinement.

Case studies were identified with the help of members of WG1 and selected in order to maximize differences in terms of geographical area, funder, focus of intervention, and stage (design vs implementation) to allow for application to a prospective and a retrospective assessment. Both cases refer to externally-funded HSS interventions, and no application of the list of HS process goals to the broad review of HS development has yet been tried.

Two case studies were selected:

- one based on the Global Fund’s Service Delivery Innovations Strategic Initiative, currently at design stage. The focus on the intervention is on HRH planning, Quality Improvements through integrated supportive supervision, and Leadership & Management strengthening at all levels, with emphasis on collaborating with other Strategic Initiatives (e.g., TB, HIV), and it is due to be implemented in five countries of West and Central Africa;
- the second case study on IADB’s Salud Mesoamerica Initiative (SMI) which has been implemented in 8 countries between 2011 and 2021, and is therefore in the final stages of implementation.

Further details on the two interventions as well as the application of the list of HS process goals to each of those are provided in Annex 5. In the section below we reflect on lessons learned from the case studies and limitations.

### 6.1 Lessons learned from the case studies, and limitations

Overall, the exercise of applying the list of HS process goals to the case studies was found to be helpful and constructive by all those involved.

In relation to the first case study, the positive reaction of the intervention’s designer stressed how the application of the list of HS process goals “has helped to better frame how the intervention relates to HSS and identify areas for improvement”.

As noted in the methods section, however, due to the limited time available, the application of the list of HS process goals to the case studies was coordinated by a person external to the interventions (MB), with the support of the intervention’s designer (for the first case study) or a group from the implementing agency (for the second one). This means that it was not possible to implement the participatory and inclusive approach envisaged above. In addition to reducing the relevance of the HSS evaluation, another consequence of the approach was that the process was not without challenges, mainly due to the fact that the external evaluator had not enough in-depth knowledge of the intervention to be able to reflect on all HS process goals in sufficient details, in particular for the second case study. Indeed, for the first (Global Fund) case study, where the application is prospective and the intervention still at planning stage, the process was relatively smooth as documentation is limited to few planning/design documents and many of the reflections and hypotheses could be unpacked by the evaluator together with the intervention’s designer. For the second case, however, while extensive documentation on the intervention was provided, most of it did not refer specifically to the HS process goals, or only allowed a partial view of the intervention (for example, focusing on sub-sub components rather than providing a comprehensive picture). Additional information was then added by the implementation team based on their

experience and direct knowledge. As a consequence, the process of applying the list of HS process goals as illustrated in these case studies must also be considered preliminary, partial and mostly done for illustrative purposes.

## 7. Conclusions

In this document, we have reviewed the work undertaken under the HSS Evaluation Collaborative (WG1, focal area 3) with the objective of developing a framework or tool for HSS evaluation, that could be applicable both to short-term and focused investment or interventions, and to overall health system reforms. The main steps of the work consisted in critically reviewing the existing literature on health systems, health system strengthening and health system strengthening M&E and, based on the findings of the review as well as iterative discussions with WG1 and the subgroup working specifically on this study, developing an HSS model to provide a simple depiction of HSS processes and to situate the area that we identified as the best entry point for HSS evaluation. The following step was to further develop that area by defining a list of health system process goals, which are markers or signs of HSS as well as features of a strong health system. The list of health system process goals allows for an evaluation of HSS. The main steps of the process are described above, including the lessons learned and limitations of the application of the tool to case studies.

Supported by the findings of the application of the list of HS process goals to two case studies, we believe that the list of HS process goals represents a helpful tool for the prospective or retrospective assessment of HSS, in particular in terms of allowing monitoring of and learning about HSS (as well as formative evaluation) and opening a space for participatory, inclusive policy dialogue about HSS. It is also important to stress that the list of HS process goals is one of the available tools to evaluate the impact on health systems, and should be used in conjunction with other tools and approaches. Compared to other existing tools, it has the advantage of being applicable also at design or initial stages of implementation, without having to wait for effects to be evident on HS outputs, outcomes or impacts at population level.

While the case studies provide a preliminary application of the list of HS process goals and help clarify the process, we hope that others (in the WG1 and beyond) will be interested in continuing the testing and refinement of the tool, by applying it to other case studies, including for example interventions that can be classified as HS support rather than HSS, or - at the other end of the spectrum- to broad health system reforms (e.g. whole system changes which are internally triggered). Other applications will provide further information on how the list of HS process goals works in practice and will allow not only further refinement of the HS process goal list, but also insights on how best to use the list (for example, at which stages, by whom, using which methodologies and processes) to realise its full potential.

# Annex 1: Terms of Reference for WG1 Focus Area 3

## WG1 Terms of Reference

5 August 2021



## Focus area 3 – HSS evaluation: conceptual frameworks and theories of change

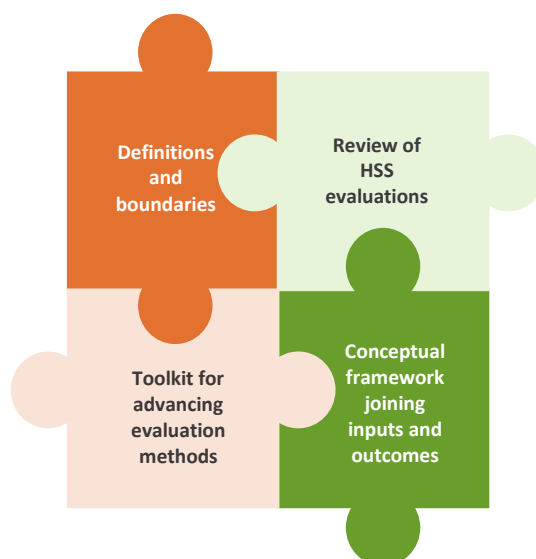
### Objectives of WG 1 can be proposed as

1. Unpack thinking and terminology that refers to HSS and seek greater clarity on the possible boundaries and definitions of this field, to make recommendations on priority areas for HSS evaluation, including process evaluation.
2. **Contribute to new or consolidated thinking/frameworks on how health systems develop and the potential role of HSS investments in that process, to understand the role of investments in triggering or contributing to systems level change. This will inform how HSS investments and programs can be evaluated and priority areas for HSS evaluation. This work may focus on identifying intermediate system-level indicators and outcomes on the pathway to impact.**
3. Conceptualize potential new methods (or adaptations) and describe existing methods with potential for effective process and impact evaluations.
4. Create a toolkit for the measurement of inputs, processes, and outcomes that will be useful to those investing in HSS, such as approaches to measuring contribution to both health system outcomes and health outcomes under the appropriate timeframe.

The audience for our work was agreed to be both national Ministries of Health (and allied organisations) and external HSS investor agencies.

Working Group 1 comes out of discussions which have articulated a need for exploration of:

1. Some degree of **shared language/understanding** around the topic of “what is HSS?”
2. **More useful frameworks**, perhaps with more overarching scope (is there a common overarching framework and/ or language that can help to bring together the work of different stakeholders?)
3. Greater agreement around how to measure **outcomes**, and what is acceptable as an outcome measure(s) for HSS evaluations.
4. Wider discussion and thinking around different methods and approaches to HSS evaluation dependent on what type of HSS evaluation questions are being asked.



### Focus area 3: Framework to support HSS conceptualization and evaluation

#### Objectives and description of output

One of the challenges of HSS evaluation is that it is difficult to discern the role of HSS investments in triggering or contributing to systems level change. There is a need for strong intermediate systems indicators, frameworks or causal pathways to address this challenge.

The objectives for this work are to:

1. Contribute to new or consolidated thinking on how health systems develop and the potential role of HSS investments (interventions and strategies) in that process
2. Develop a conceptual framework to capture how systems strengthening takes place – articulating how the known "inputs" (from both development partners and countries) are joined to the desired "outcomes"
3. Understand the extent to which an intervention or strategy can contribute to HSS
4. Provide a resource for future HSS programmers and evaluators to base ToCs on and to identify intermediate indicators, including for evaluative purposes

Focus area 3 will inform how HSS investments and programs can be evaluated as well as priority areas for HSS evaluation. This work is likely to focus on identifying intermediate system-level indicators and outcomes on the pathway to impact.

**The output is expected to be a conceptual framework which can support thinking about pathways of change in HSS and how to evaluate HSS effects of (1) short term and focused investment, and (2) overall health system reforms.**

#### Scope of work and proposed methods

In designing this work and setting out its research questions, WG members have indicated that it will be important to consider:

- The diversity of HSS investments and build on the work of Focus area 1 (setting out the definitions and boundaries of HSS) to understand what different stakeholders even consider to be an HSS investment
- How to conceptualise what HSS is and how we measure it
  - Are there indicators of change that can be used as a proxy for HSS outcomes?
- How do HSS interventions interact with existing systems (within the HS and beyond?) and inputs to influence HSS and what are the knock-on effects of engaging in a system as opposed to in a silo?

- Long- or short-term timeframes for outcomes and relation to systems strengthening vs support
- The means of delivering HSS interventions, considering who makes decisions, who are the participants and how much autonomy stakeholders have
- There is a need to be pragmatic or we risk focusing too much on what caused what, and ignoring the fact that in the real world many factors influence outputs (1 plus 1 may equal 3)
- That a working list of assumptions may be needed
  - We should avoid assuming that HS are static until a HSS intervention is implemented. HS evolve regardless of the presence of an HSS intervention; a large sum of money brought into a country will affect the system even if it doesn't directly fund an HSS intervention

A meeting of the sub-group of WG1 that is guiding this work will further develop these ideas on August 17<sup>th</sup>, but this output could consist of:

1. A qualitative review of the literature on HSS evaluation frameworks and mechanisms of HSS, setting out key points from different frameworks and conceptual models
2. Considering the role of systems thinking in the field of HSS evaluation generally
3. An analysis of the components of HSS frameworks to develop a guiding approach or framework which can be adapted to each HSS evaluation
  - a. This could include the development of guidelines which set out practical ideas from system thinking that can help us to be more literate about the use of frameworks. How do you understand if a framework fits and what are you going to put in and leave out of it? We don't need to all agree on one framework, but rather build the system thinking contribution to it.
4. An analysis and list of outcomes (and potentially associated indicators) which can be used to assess whether HSS is taking place
5. A synthesis of 'intermediate outcome indicators', with an understanding of what is meant by these (*building on existing work, e.g., that of USAID*). This work could draw on process indicators (examining whether an intervention is being implemented as planned, and whether the mechanisms of action – arrows in a ToC – are operating as hypothesized) and look at pathways that may not be directly related to the purpose of an intervention (e.g., a vertical intervention could deliver horizontal value)
  - a. We need to avoid falling down indicator rabbit hole, but recognizing that there is a gap in appropriate indicators for measuring HSS – consider links to focus area 4 here (appropriate indicators need to be set out, then thinking is needed around what indicators are measurable/measured)
6. A case study of one type of HSS investment (such as health worker training) which constructs causal pathways examining the mechanisms for HSS (a framework) demonstrating how inputs lead to processes and outputs, and subsequently HSS outcomes based on theory and empirical evidence
  - a. This example could set out the interdependencies of sub-systems in the health system, helping us to see the connections between inputs, outputs and outcomes as dynamic and circular rather than linear.
  - b. The case study could help to develop a narrative which accounts for the role of external factors in affecting our ability to measure the link between inputs and outcomes
  - c. This case study could be a way of applying/testing the HSS evaluation framework(s) set out in steps above

## Team

The research questions and process for this focus area will be guided by Abdallah Bchir, Alex Rowe, Anna Rapp, David Hotchkiss, Eric Sarriot, Frank Wafula, Rachel Marcus/Anwer Aqil, Sjoerd Postma,

who will be providing technical expertise. The process of delivering the work will be managed by Natasha Palmer, Sophie Witter, Maria Bertone, and Krista Kruja.

**Timeline**

To be discussed at meeting on August 17<sup>th</sup>.



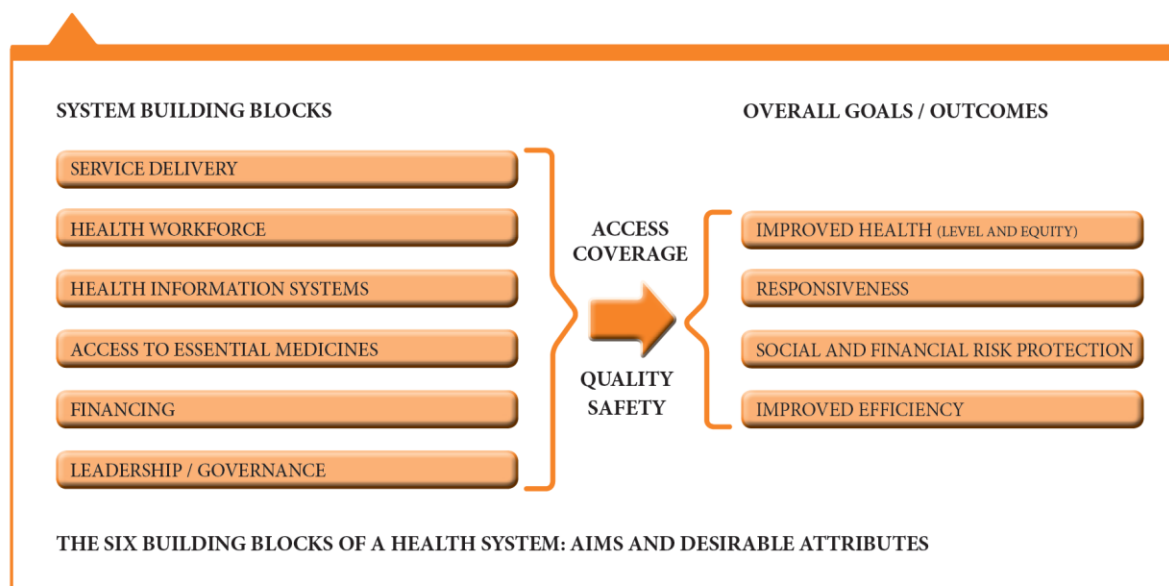
## Annex 2: Main results of the literature review and overview of frameworks

### Annex 2.1: Health systems frameworks

The most known and cited, and widely used conceptual framework to conceptualize, understand and unpack health system is undoubtedly the “health systems framework” developed by WHO for the 2007 report<sup>19</sup> (Figure A1). The framework identified six “building blocks”, which are the core elements of any health system. The way building blocks are organized and function defines the intermediate goals of access, coverage, quality and safety and the overall goals (or outcomes) of improved health, responsiveness, risk protection and efficiency. The success of the framework is likely due to its practical appeal and simplicity, as it allows breaking down the health system in discrete functions, relating to what have been called the ‘hardware’ elements of the system<sup>20</sup>. However and despite its widespread use over the last years, it is not without critiques, as described below.

**Figure A1:** The WHO Health Systems Framework (WHO, 2007)

**Figure 1. The WHO Health Systems Framework**



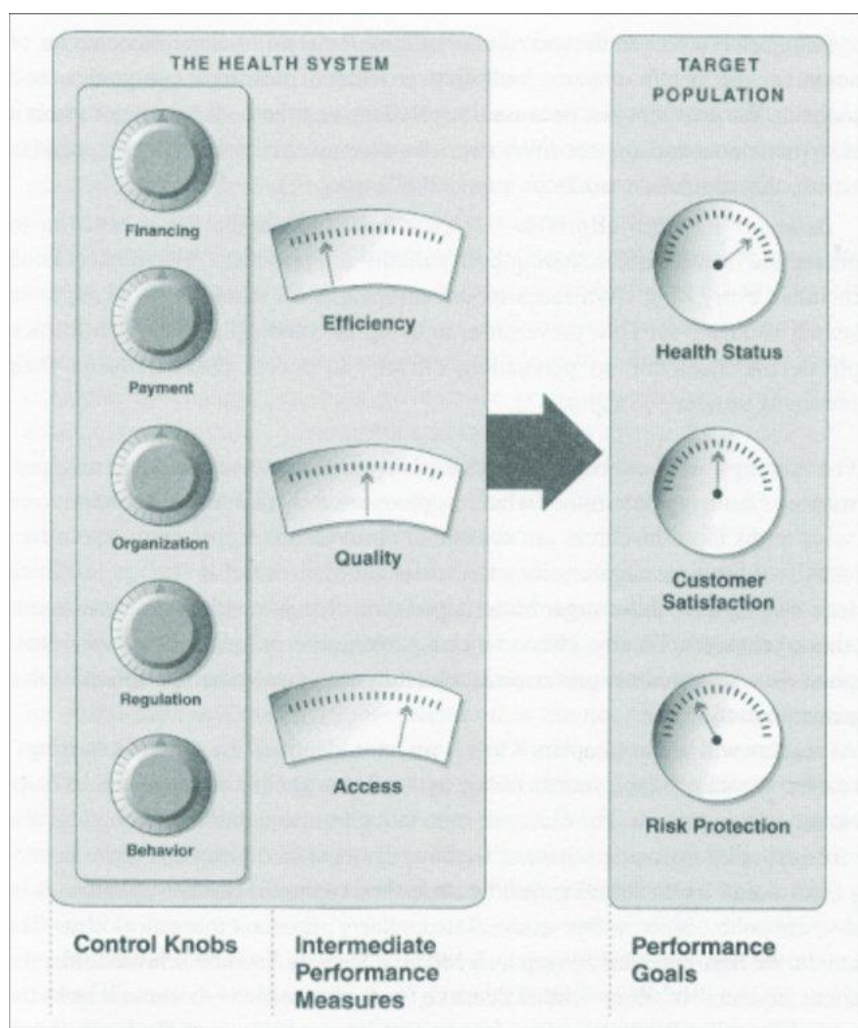
The “control knobs” framework (2004)<sup>21</sup> is also cited in the literature as one of the foundational health system frameworks (Figure A2). Compared to the WHO framework above its focus is more deterministic than descriptive, trying to capture what factors influence how the health system performs, and in turn, how can policy makers make a health system perform better, by acting on a number of control knobs: financing, payment, organisation, regulation and behaviour.

**Figure A2:** “Control knobs” framework (Roberts et al, 2004)

<sup>19</sup> WHO (2007), *Everybody's business – Strengthening health systems to improve health outcomes*. Geneva: World Health Organization.

<sup>20</sup> Sheikh K, Gilson L, Agyepong IA, Hanson K, Ssengooba F, Bennett S (2011) Building the Field of Health Policy and Systems Research: Framing the Questions. *PLoS Med* 8(8): e1001073.

<sup>21</sup> Roberts M, Hsiao W, Berman P and Reich M (2004), *Getting health reform right: a guide to improving performance and equity*. New York: Oxford University Press.



In the following years, critiques were moved to these frameworks, as they seemed unable to capture the dynamics between elements of the health system and did not explicitly recognize the nature of the health system as a social institution and therefore the existence of essential issues that shape the health system that are more intangible in nature (often referred to as “software” elements of the health system<sup>22</sup>). These include ideas and interests, relationships, interpersonal dynamics, and power, trust, social values, norms and formal and informal institutions, etc. Increasingly, authors attempted to move beyond the building blocks and reflect dynamic elements. As highlighted by Van Olmen et al<sup>23</sup> in their historical overview of health system frameworks from the 80s to 2010, this reflects the political and ideological nature of health system frameworks, which is influenced by the context and narratives in which they have emerged. As the authors stress, “frameworks on health systems are products of their time, emerging from specific discourses. They are purposive, not neutrally descriptive, and are shaped by the agendas of their authors, [...] partly in line with prevailing paradigms and partly as a response to the very different needs of their developers”<sup>24</sup>.

Figure A3 presents the evolution of the health system frameworks overtime, and the attempt to move beyond the blocks to give more attention to non-linear dynamics between elements and to intangible elements. This is for example the case of the “health system dynamics framework”,

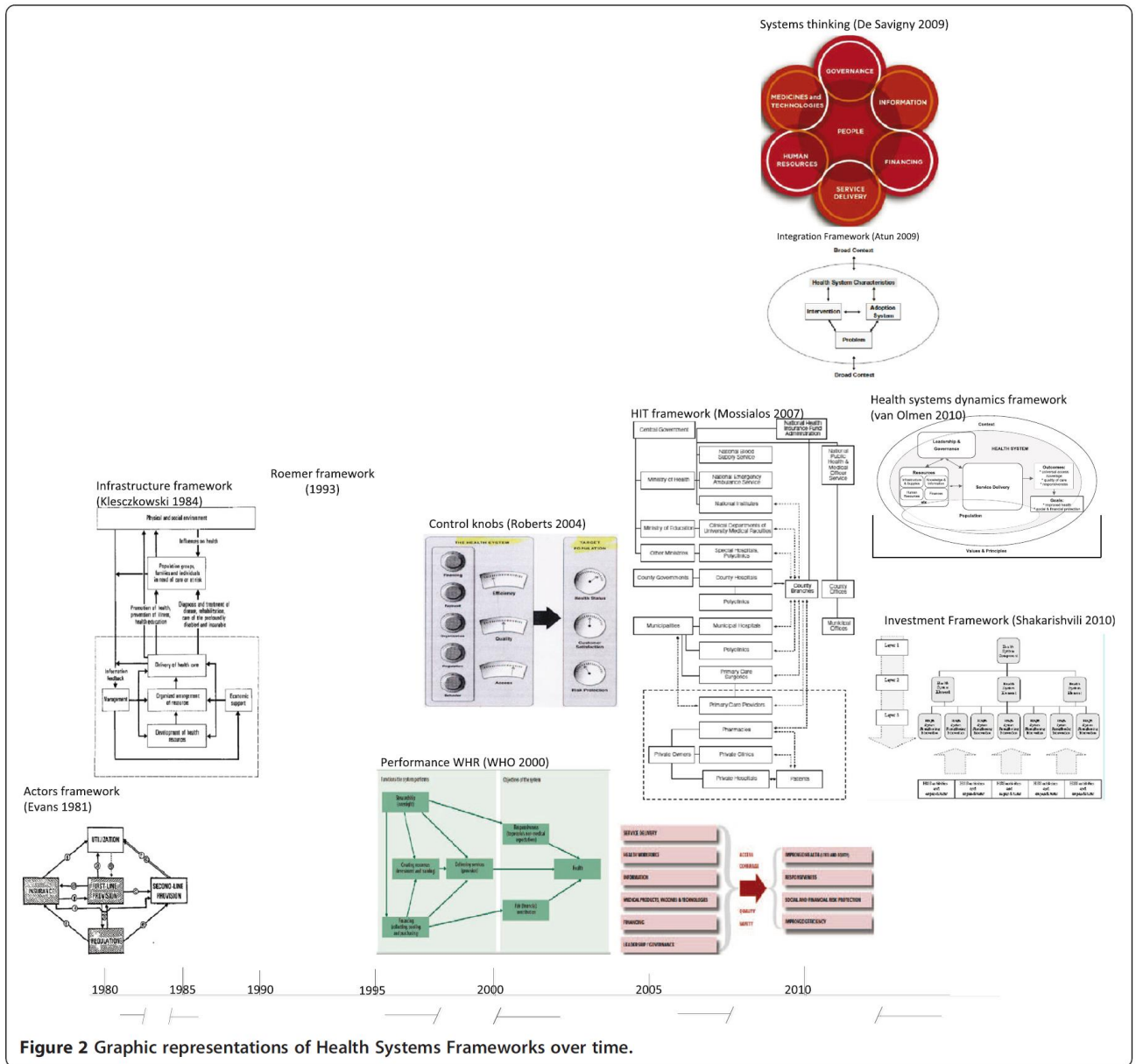
<sup>22</sup> Sheikh K, Gilson L, Agyepong IA, Hanson K, Ssengooba F, Bennett S (2011) Building the Field of Health Policy and Systems Research: Framing the Questions. *PLoS Med* 8(8): e1001073.

<sup>23</sup> Van Olmen J, Marchal B, Van Damme W, Kegels G, Hill P (2012), Health systems frameworks in their political context: framing divergent agendas. *BMC Public Health* 12:774.

<sup>24</sup> Van Olmen et al (2012), cit.

developed by Van Olmen et al (2012)<sup>25</sup>, or the “System Thinking” framework<sup>26</sup> (both included in Figure A3).

**Figure A3:** Historical overview of health systems frameworks (Van Olmen et al, 2012)



More recent health system framework, similarly aim to go beyond the building blocks and allow more explicit acknowledgement of the role of overlooked elements (for example, social determinants of health) and actors that have a role over those, such as communities, which are integrated within and beyond the building blocks (Figure A4)<sup>27</sup>. Functional approaches have also been recently refined based on the lessons learned from the COVID-19 pandemic, including issues

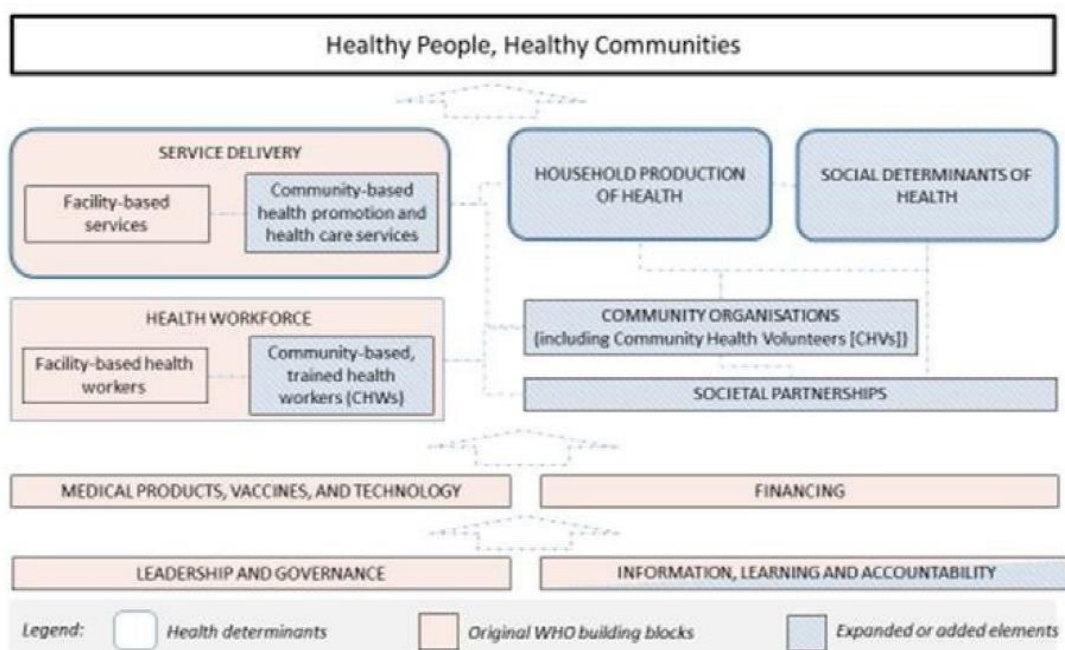
<sup>25</sup> van Olmen J, Criel B, Bhojani U, Marchal B, Chenge F, Van Damme W, Hoeree T, Pirard M, Kegels G (2012) The Health Systems Dynamics Framework. *Health, Culture and Society*, 2(1):1–12.

<sup>26</sup> De Savigny D, Adam T (2009), *Systems Thinking for Health Systems Strengthening*. Geneva: World Health Organisation.

<sup>27</sup> Sacks E, Morrow M, Story WT, et al. (2019) Beyond the building blocks: integrating community roles into health systems frameworks to achieve health for all. *BMJ Global Health*; 3:e001384.

concerning the role and influence of context, the importance of multisectoral collaborations, and including health security as a goal of the health system (Figure A5)<sup>28</sup>.

**Figure A4:** “Beyond the building blocks” framework (Sacks E et al, 2019)



While we have highlighted above some of the most widely cited frameworks and their most recent developments, there exist undoubtedly an “array” of frameworks aiming to provide an overview of health systems, describing them, their objectives, structural and organizational elements and/or functions and processes. A 2010 review<sup>29</sup> identified 21 frameworks, while a subsequent one<sup>30</sup> in 2012 identified 41 frameworks, including both health system and health system strengthening frameworks, which we cover below. Various types of classification and taxonomies have been developed. For example, Shakarishvili et al (2010) identify frameworks that are descriptive in nature, analytical or deterministic/predictive (Figure A6). Hoffmann et al (2012) categorise them as (i) system frameworks (i.e., focused on the whole health system), (ii) sub-frameworks (i.e., focused on particular parts of the health system), (iii) supra-frameworks (i.e., focused on how other societal systems interact with the health system); and based on their goal (understanding, comparing, informing change, evaluating) (Figure A7).

**Figure A5:** Health system functionality framework (Karamagi et al, 2021)

<sup>28</sup> Karamagi HC, Tumusiime P, Titi-Ofei R, et al. (2021) Towards universal health coverage in the WHO African Region: assessing health system functionality, incorporating lessons from COVID-19. *BMJ Global Health* 2021;6:e004618.

<sup>29</sup> Shakarishvili G, Atun R, Berman P, Hsiao W, Burgess C, Lansang MA (2010), *Converging Health Systems Frameworks: Towards A Concepts-to-Actions Roadmap for Health Systems Strengthening in Low and Middle Income Countries*. *Global Health Governance*, 3:2.

<sup>30</sup> Hoffman S, Røttingen J-A, Bennett S, Lavis J, Edge J, Frenk J (2012), *Conceptual issues related to Health Systems Research*. Background Paper on Conceptual Issues Related to Health Systems Research to Inform a WHO Global Strategy on Health Systems Research. Geneva: Alliance for Health Policy and Systems Research

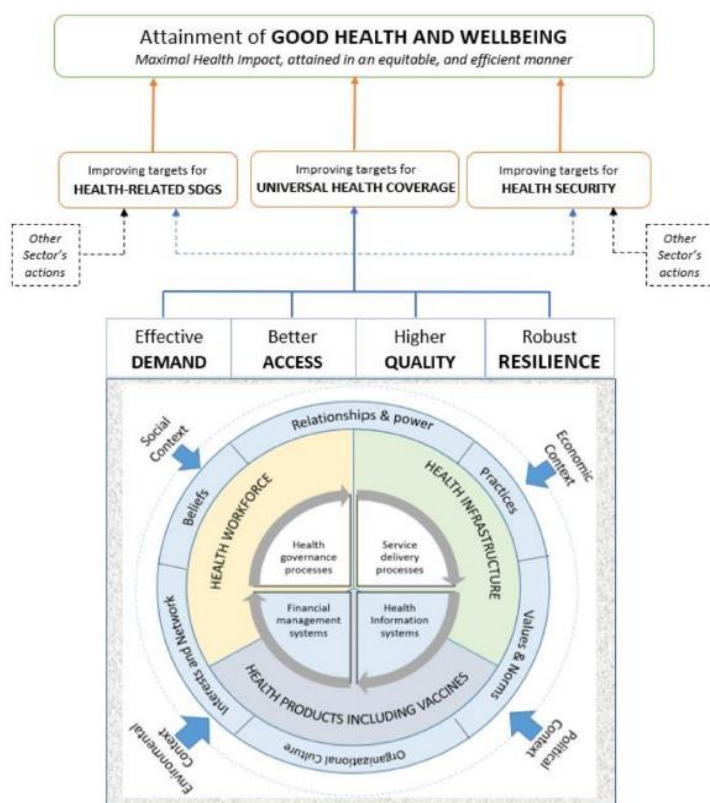


Figure 2 Conceptual approach linking system functionality with outcomes and impact.

Figure A6: classification of health systems frameworks (Shakarishvili et al, 2010)

Table 2: Classification of Health Systems Frameworks

Perspective/Type	Researchers/Organizations
<b>Descriptive</b> <i>Sub-systems</i>	Various
<i>National</i>	Roemer (1991, 1993) European Observatory (HiTS) WHO Regional Sites
<b>Analytical</b> <i>Fund Flow</i>	Hurst (1992) OECD
<i>Functional</i>	Anell and Willis (2000) Docteur and Oxley (2003) Londono and Frenk (1997) WHO (2000) Mills and Ranson (2001, 2006) The World Bank (2007) The Global Fund (2008)
<i>Statistical Correlation</i>	Nixon and Ulmann (2006) Anand and Bärnighausen (2004)
<b>Deterministic and predictive</b> <i>Actuarial models</i> <i>Economic models</i> <i>Macro-policy model</i>	Office of the Actuary, CMS Yett , Drabak, Intriligator, et al (1972) Feldstein-Friedman (1976) Hsiao (1997); (Roberts, et. al. 2003)

Source: Hsiao and Siadat 2008.

Both reviews note that, while there is an important diversity of approaches, perspectives and aims of each of the frameworks, it is also interesting to note the areas of complementarity and overlaps. This is particularly the case when focusing on health system goals (for example, around better health, financial protection, responsiveness, satisfaction, etc.) and principles or intermediate objectives (equity, efficiency, sustainability, quality, access, coverage, safety, choice). Context is also a recurrent feature, focusing on elements such as demography, epidemiology, politics,

economy, technology. In some cases there is also some level of overlap in terms of processes (or control knobs) (resource creation, resource allocation, payment, organisation, integration, regulation, behaviour) and building blocks or functions (services, HRH, health information, technology and commodities, demand generation, financing, governance).

**Figure A7:** Categorisation of Health System Frameworks (Hoffman et al, 2012)

*Table 1: Categorization of 41 Health System Frameworks*

Goal	Type of Framework		
	Sub-Framework	Framework	Supra-Framework
<i>Understanding</i>	<ul style="list-style-type: none"> <li>• Yett, <i>et al.</i>, University of Southern California, 1972†</li> <li>• Kutzin, WHO Regional Office for Europe, 2001†</li> <li>• Mills, <i>et al.</i>, World Bank, 2006†</li> </ul>	<ul style="list-style-type: none"> <li>• Evans, University of British Columbia, 1981 ("Actors Framework")*</li> <li>• Roemer, University of California, 1991 ("Basic Interactions Framework")*</li> <li>• WHO, 2000 ("Health Systems Performance Framework")*</li> <li>• Khaleghian &amp; Das Gupta, World Bank, 2004†</li> <li>• WHO, 2007 ("Building Blocks")*</li> <li>• Global Fund, 2008*</li> <li>• Mikkelsen-Lopez, <i>et al.</i>, Geneva Health Forum, 2010†</li> </ul>	<ul style="list-style-type: none"> <li>• Hsiao &amp; Heller, International Monetary Fund, 1997†</li> <li>• Atun &amp; Menabde, Imperial College, 2008 ("Systems Thinking Framework")†</li> <li>• Veillard, <i>et al.</i>, Canadian Institute for Health Information, 2011*</li> </ul>
<i>Comparing</i>	<ul style="list-style-type: none"> <li>• Feldstein, <i>et al.</i>, Harvard University, 1972*</li> <li>• Feldstein &amp; Friedman, Department of Health, Education and Welfare, 1976*</li> <li>• Nixon &amp; Ulmann, University of York, 2006†</li> </ul>	<ul style="list-style-type: none"> <li>• Rechel, <i>et al.</i>, European Observatory on Health Systems and Policies, 2010 ("HiT Template")*</li> </ul>	<ul style="list-style-type: none"> <li>• Hurst, OECD, 1992 ("Fund Flows and Payment Framework")*</li> <li>• Anell &amp; Willis, Swedish Institute for Health Economics, 2000*</li> <li>• Hurst &amp; Jee-Hughes, OECD, 2001*</li> <li>• Docteur &amp; Oxley, OECD, 2003*</li> <li>• Anand &amp; Bärnighausen, University of Oxford and Harvard University, 2004*</li> <li>• Siddiqi, <i>et al.</i>, WHO Regional Office for the Eastern Mediterranean, 2009*</li> </ul>
<i>Informing Change</i>	<ul style="list-style-type: none"> <li>• WHO, 2008 ("Primary Healthcare")*</li> <li>• Savel, <i>et al.</i>, Centers for Disease Control and Prevention, 2010†</li> </ul>	<ul style="list-style-type: none"> <li>• Frenk, Mexican Health Foundation, 1994 ("Reform Framework") †</li> <li>• Londoño &amp; Frenk, Inter-American Development Bank &amp; Mexican Health Foundation, 1997†</li> <li>• Sicotte, <i>et al.</i>, University of Montreal, 1998 ("Integrated Performance Framework") †</li> <li>• Mills &amp; Ranson, London School of Hygiene and Tropical Medicine, 2001*</li> <li>• Population Health and Wellness, British Columbia Ministry of Health Services, 2005*</li> <li>• Commonwealth Fund, 2006*</li> <li>• Van Olmen, <i>et al.</i>, Institute of Tropical Medicine Antwerp, 2010†</li> </ul>	<ul style="list-style-type: none"> <li>• Cassels, 1995†</li> <li>• World Bank, 2007 ("Healthy Development")†</li> </ul>
<i>Evaluating</i>	<ul style="list-style-type: none"> <li>• Ergo, <i>et al.</i>, USAID, 2011</li> </ul>	<ul style="list-style-type: none"> <li>• Aday, <i>et al.</i>, University of Texas, 1998 ("Behavioural Healthcare Framework")*</li> <li>• Roberts, <i>et al.</i>, Harvard University, 2003 ("Control Knobs Framework")*</li> <li>• Ramagem &amp; Raules, Pan American Health Organization, 2008*</li> <li>• International Health Partnership, 2008†</li> </ul>	<ul style="list-style-type: none"> <li>• Arah, <i>et al.</i>, University of Amsterdam, 2006*</li> <li>• Shakarishvili, <i>et al.</i>, The Global Fund to Fight AIDS, Tuberculosis and Malaria, 2011*</li> </ul>

Note: \* indicates a descriptive framework and † indicates an interactive framework. Full citations listed in Appendices 1 and 2.

## Annex 2.2: Health system strengthening frameworks

The next steps of the literature review was to move our focus to frameworks specifically concerned with health system strengthening (HSS). As mentioned above, based on Hoffmann et al (2012)<sup>31</sup>

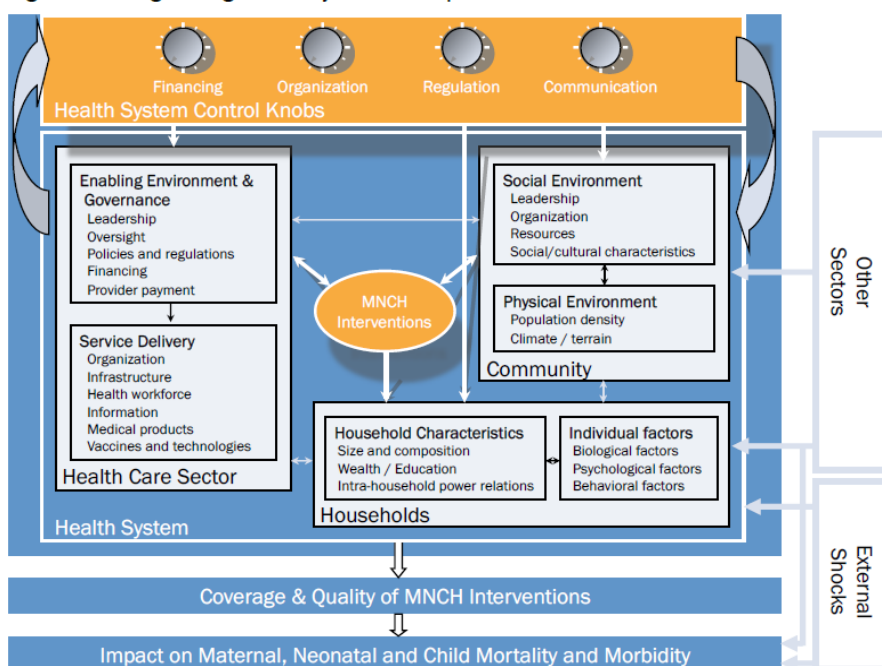
<sup>31</sup> Hoffman S, Røttingen J-A, Bennett S, Lavis J, Edge J, Frenk J (2012), *Conceptual issues related to Health Systems Research*. Background Paper on Conceptual Issues Related to Health Systems Research to Inform a WHO Global Strategy on Health Systems Research. Geneva: Alliance for Health Policy and Systems Research

synthesis (Figure A7), these are numerous, with different aims, objectives and perspectives and often closely interlinked with (and building on) health system frameworks. We do not aim here to present a comprehensive overview of all existing HSS frameworks, but to highlight a few illustrative examples.

A number of HSS frameworks take a service or disease-specific starting point and situate those services within the broader health system (often building on existing frameworks), highlighting the linkages and how elements of the system might be affected and reflecting on the potential for action to strengthen the health system stemming from service/disease specific interventions and vice versa. One example of such frameworks is the one developed by Ergo et al (2011)<sup>32</sup> focused on Maternal, Neonatal and Child Health (MNCH) and to be used as diagnostic, programming and research tool (Figure A8).

**Figure A8:** HSS framework in relation to MNCH services (Ergo et al, 2011)

**Figure 1. Strengthening Health Systems to Improve MNCH Outcomes - a Framework**



Another strand of literature and work aims to reflect on what is HSS, trying to identify the defining elements of health system *strengthening* and unpacking the differences between interventions that can be categorised as “health system support” and those that go beyond it and do actually strengthen the health system. The work done by Chee et al (2013)<sup>33</sup> for example expands the building blocks into the “health system cube” (Figure A9), stressing that for HSS to happen there is a need to go beyond inputs and focus on interventions that affect performance drivers (policies and regulations, organizational structures, relationships across the health system to motivate changes in behaviour).

**Figure A9:** Health system cube highlighting features of HSS (Chee et al, 2013)

<sup>32</sup> Ergo A, Eichler R, Koblinsky M, Shah N (2011), *Strengthening Health Systems to Improve Maternal, Neonatal and Child Health Outcomes: A Framework*. Washington DC: USAID – Maternal and Child Health Integrated Program.

<sup>33</sup> Chee G, Pielemeier N, Lion A, Connor C (2013) Why differentiating between health system support and health system strengthening is needed. *International Journal of Health Planning and Management*; 28: 85–94.

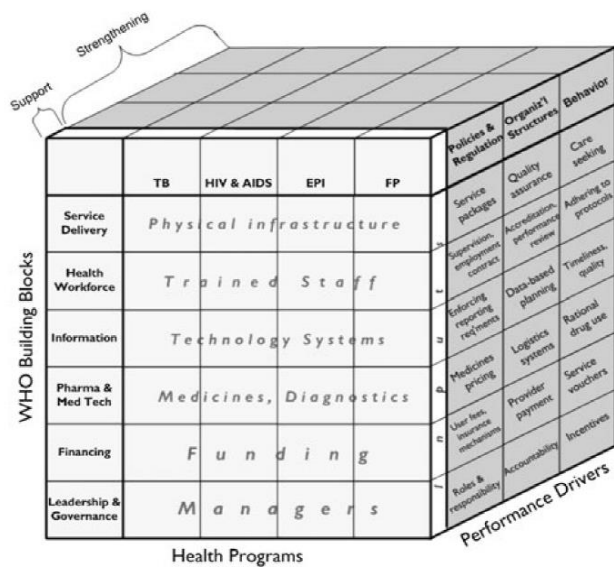
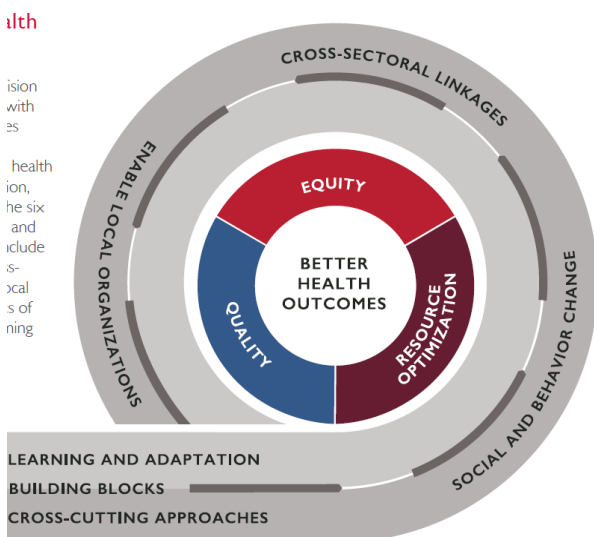


Figure 1. The health system cube

Most recently, USAID (2021)<sup>34</sup> has carried out conceptual work to progress the thinking on HSS from the bilateral agency’s perspective. The objective is to shift the focus of HSS interventions from health system’s functions to desired intermediate outcomes (equity, quality, resource optimization) as the starting point for programme planning and for evaluation. As such, interventions need not only to look at the “building blocks”, but also take a broad approach looking at critical elements that are more cross-cutting in nature, such as learning and adaptations, social and behavior change, cross-sectoral linkages, enable local organizations (Figure A10). This leads to HSS interventions that include more integrated activities that address and impact on multiple blocks of the system and approaches that build sustainability, as well as inclusive country-led partnerships. These reflections are particularly helpful for our own conceptualization of HSS and HS process goals as described in the main text.

Figure A10: Health System Strengthening Framework (USAID, 2021)



<sup>34</sup> USAID (2021), *USAID Vision for Health System Strengthening 2030*, Washington DC: USAID.



## Annex 2.3: Health System Strengthening Monitoring and Evaluation frameworks

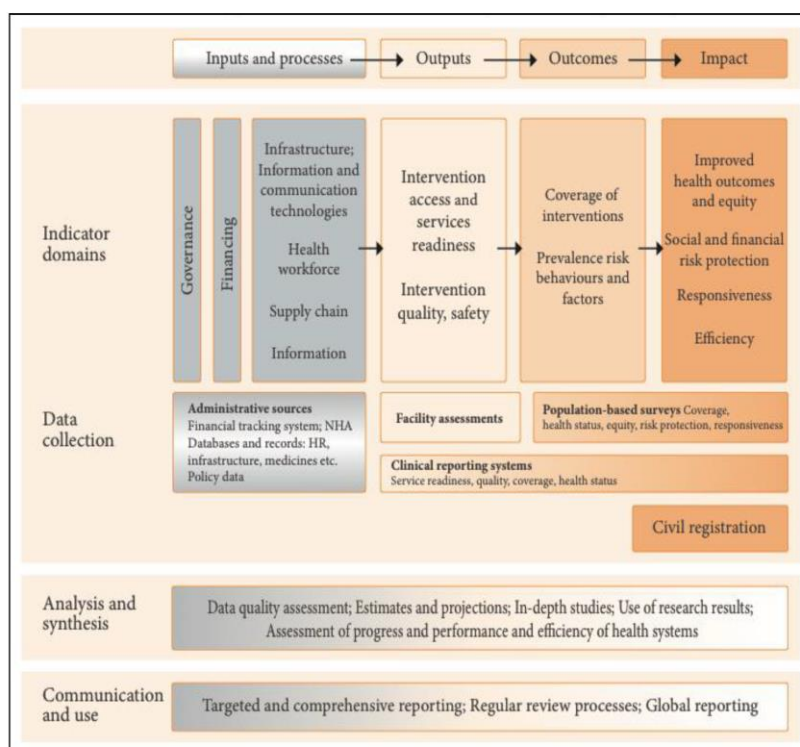
Interesting for our specific purposes are the frameworks and approaches that are specifically focused on monitoring and evaluation (M&E) of HSS, although work in this area is less prolific than on the areas above – though it strongly links with that. This does not mean that the topic has not been subject of numerous publications. A recent review found 21 conceptual frameworks that define the scope of M&E for HSS, 14 documents that list indicators of HS performance, 16 documents that reflect on research designs for evaluating HSS and 10 step-by-step guides specific to M&E of HSS<sup>35</sup>.

In this area, work has often been done by or for global health institutions funding or implementing HSS interventions and interested in their assessment. The perspective is therefore less theoretical and systemic, and more specifically applied to external interventions.

Key approaches include that developed by the International Health Partnership Plus (IHP+), a donor-led initiative, which has a donor coordination and harmonisation objective, aiming to outline how to operationalise M&E of HSS at country level and support joint work of global partners. The approach developed is outlined in Figure A11 and it focuses mostly on data sources and analysis processes<sup>36</sup>. Similarly, Katz et al (2012)<sup>37</sup> developed a framework for programme evaluation of HSS interventions, funded by the Global Fund through its HSS grants (Figure A12). Here much attention is focused on internal and project management processes, but it is interesting to note how the document also highlights the interactions between health system outcomes, health outcomes and system wide effects of one or multiple HSS interventions (see Figure 1 in Katz et al, 2012).

**Figure A11:** Framework for M&E of HSS (IHP+, 2009)

Figure 1. Framework for monitoring and evaluation of health systems strengthening



<sup>35</sup> Diana M, Yeoger V, Hotckiss D (2017), *Health Systems Strengthening – A Literature Review*. Chapel Hill: MEASURE Evaluation, USAID

<sup>36</sup> IHP+ (2008) *A common framework for monitoring performance and evaluation of the scale-up for better health*; IHP+ (2009) *Monitoring and evaluation of health systems strengthening: An operational framework*

<sup>37</sup> Katz I, Chee G, Hulme A, Koseki S (2012). *Framework and Guideline for the Assessment and Evaluation of Health Systems Strengthening Programs*. Bethesda, MD: Health Systems 20/20 project, Abt Associates Inc.

**Figure A12:** Framework for HSS programme evaluation (Katz et al, 2012)

**FIGURE 2: FRAMEWORK FOR HSS PROGRAM EVALUATION**



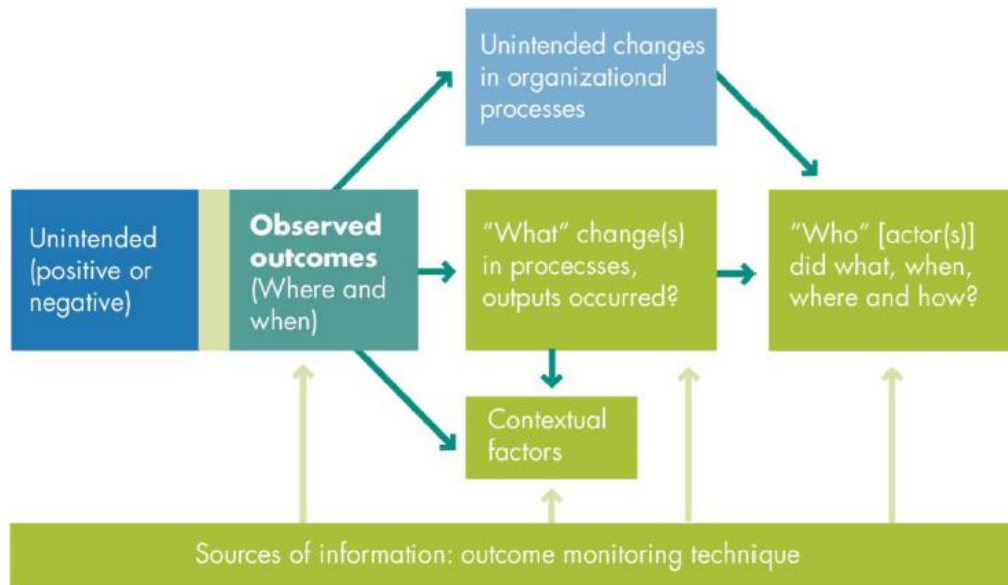
More recently, USAID has produced a Monitoring, Evaluation and Learning Guide focused on HSS authored by Aqil et al<sup>38</sup>, which provides operational guidance for USAID staff for planning, implementing and evaluating HSS interventions/projects and is accompanied by a compendium of indicators<sup>39</sup>, organized by building blocks. As suggested by Katz et al above, this framework also points to the importance of unpacking multiple pathways to impact, through both intended and unintended effects that can go beyond the aspect or health system element specifically addressed by the intervention (Figure A13). Although, overall most of the focus of the existing HSS M&E frameworks is on impact and HS outputs, we find that the reflection on system-wide, intended/unintended and spill-over effects is particularly helpful for our purposes as outlined in the main text.

**Figure A13:** HSS M&E framework (Aqil et al, 2017)

<sup>38</sup> Aqil A, Silvestre E, Hotchkiss D, Maniscalco L (2017), *Health Systems Strengthening - Monitoring, Evaluation, and Learning Guide*. Chapel Hill: MEASURE Evaluation, USAID

<sup>39</sup> Diana M, Yeoger V, Hotchkiss D (2017), *Health Systems Strengthening – A Compendium of Indicators*. Chapel Hill: MEASURE Evaluation, USAID

Figure 8. Outcome monitoring, creating causal linkages between processes and outcomes



## Annex 2.4: Recent relevant work

Because of the purposeful nature of our review, driven by our specific objectives (i.e., identifying gaps and potential new developments in the broader literature) in relation to the overall aim of work in the HSSEC’s focus area 3 rather than by a rigid, systematic search protocol, we found it helpful to explore and review areas of literature that might be perceived as somewhat peripheral to the topic above. In particular, we refer here to three documents that have been helpful to shape our reflection as outlined in the main text.

### UHC2030/WHO’s Health System Performance Assessment framework and tool

This tool is part of yet unpublished work carried out by the WHO jointly with UHC2030 Technical Working Group (TWG) on Health Systems Assessments. While the tool is not yet publicly available<sup>40</sup>, an overview of the framework that underpins it can be found here<sup>41</sup>. The aim of the work conducted by UHC2030 and WHO is to develop a Health System Performance Assessment (HSPA) Tool. While the objective of the HSPA is slightly different from ours, as it aims to represent a snapshot at a point in time on the performance of the health system as a whole (rather than looking at how an intervention is shaping HSS and whether there is any marker of the health system being strengthened), some elements of the reflection are useful for our work.

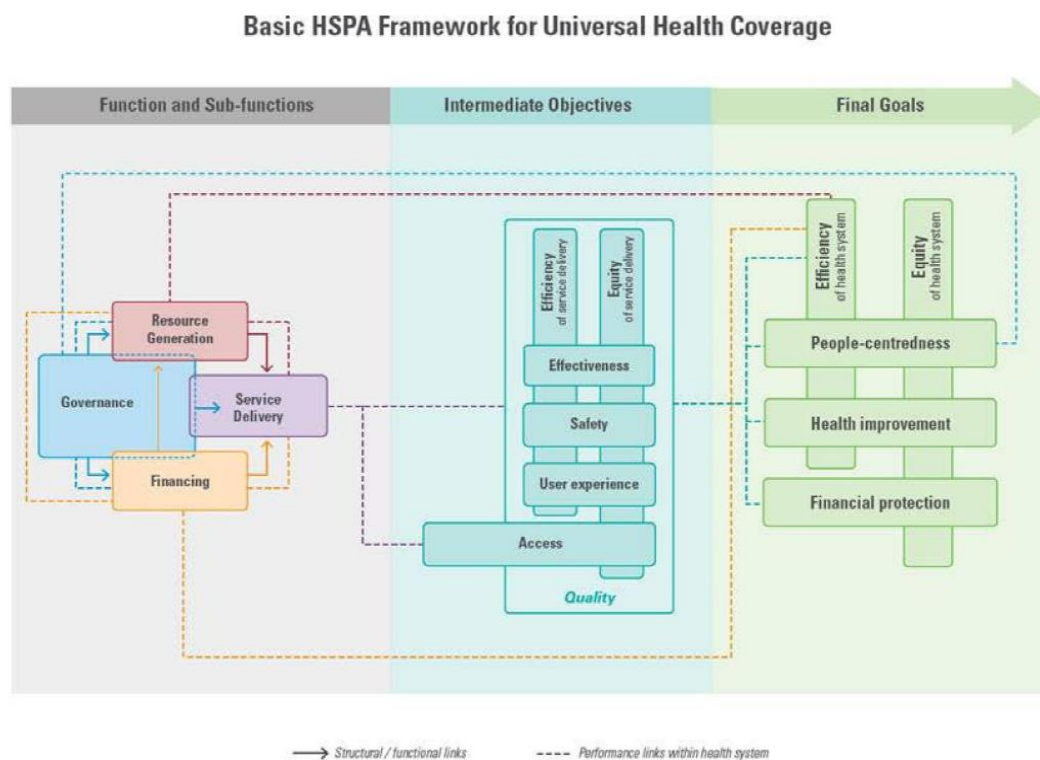
In order to develop the HSPA tool, they working group started by reviewing existing tools (7 in total) and building on them for their own proposition. The process led to the identification of four functions (governance, financing, service delivery and resource generation which includes health workforce, infrastructure and medical equipment, pharmaceuticals and other consumables), each with a set of sub-functions and linking performance of each health system function to performance of health system (intermediate objectives of efficiency of service delivery, equity of service delivery, effectiveness, safety, user experience, access) and attaining its final objectives (final goals of efficiency of health system, equity of health system, people-centeredness, health improvement, financial protection) (Figure A14). For each of the functions and sub-functions, a list of “assessment

<sup>40</sup> We thank Dheepa Rajan at WHO for sharing an early version of the HSPA tool with us Papanicolas I et al (forthcoming), *Health System Performance Assessment: A Framework for Policy Analysis*. Geneva: UHC2030/WHO

<sup>41</sup><https://www.uhc2030.org/blog-news-events/uhc2030-blog/building-better-how-can-we-support-countries-to-analyse-and-assess-health-systems-performance-555462/>

areas” was developed, which are key dimensions that have been identified in order to assess each of the functions. For example, for the function “governance”, sub-function “policy and vision”, assessment areas include: existence of multisectoral collaboration, quality of multisectoral collaboration, existence of written and traceable form, quality of strategic direction. For the function “resource generation”, sub-function “health workforce”, assessment areas include: availability of workforce, mix/distribution of workforce, education of workforce. This work provides an extremely helpful conceptualization for our purpose and the assessment areas are useful in unpacking all the essential elements within each health system’s function, thus inspiring thoughts on what health system strengthening *should look like*, although not much attention is given to processes, complex dynamics and software elements.

**Figure A14:** UHC2030/WHO's framework underpinning HSPA



Source: WHO / European Observatory on Health Systems and Policies / UHC2030 HSA TMG

### WHO's Health Financing Progress Matrix

WHO has recently developed a novel approach to assess progress on health financing, which takes the form of the "Health Financing Progress Matrix"<sup>42</sup>. The aim of the tool is to take stock on health financing situation, identify challenges and plan reforms to move towards UHC. Although obviously focused only on one health system function, that of health financing, the approach presents interesting and innovative elements that have contributed to shape our reflection.

The health financing progress matrix asks 33 questions relating to each of the health financing functions (policy, process and governance, revenue raising, pooling, purchasing, benefits and conditions of access, public financing management and public health functions and programmes). Each question maps to one of 19 "desirable attributes". The desirable attributes are a list of normative, evidence-based features of health financing systems and "are effectively a set of benchmarks, based on the assumption that progress towards the attribute will impact positively on UHC"<sup>43</sup>. Desirable attributes include for example (with reference to "revenue raising"):

- Health expenditure is based predominantly on public/compulsory funding sources
- The level of public and external funding is predictable over a period of years
- The flow of public and external funds is stable and budget execution is high
- Fiscal measures are in place that create incentives for healthier behavior by individuals and firms

<sup>42</sup> Jowett M, Kutzin J, Kwon S, Hsu J, Sallaku J, Solano JG (2020), *Assessing country health financing systems: the health financing progress matrix*. Geneva: World Health Organization, Health financing guidance, no. 8.

<sup>43</sup> Jowett et al (2020), cit.

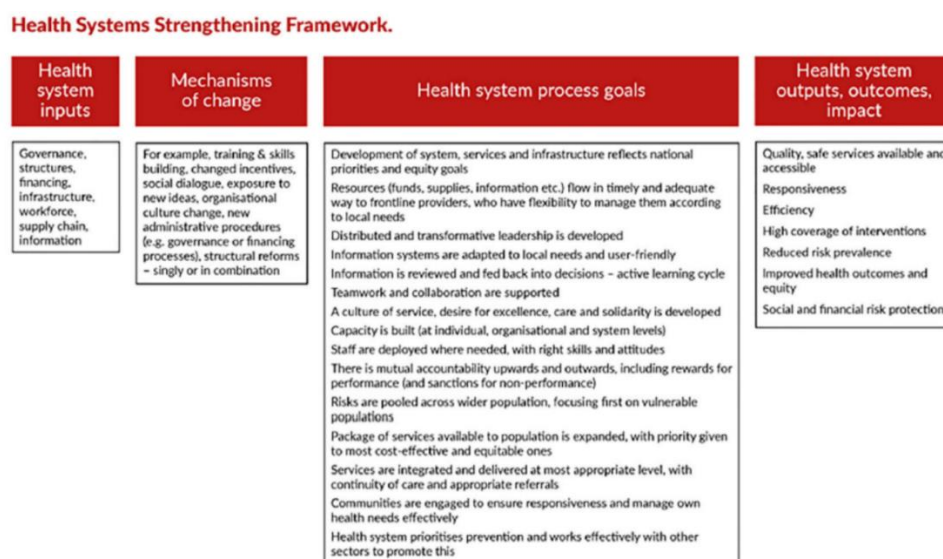
The explicitly normative nature and language of the desirable attributes and their conceptualization as *markers* of a health financing system’s progress towards UHC has contributed to share our thinking and the development of the HS process goals.

### Witter et al’s literature review on health system strengthening

A literature review to understand what works for health systems strengthening, where and when was prepared by Witter et al in 2019<sup>44</sup> and then updated and expanded in 2021<sup>45</sup>. The review was commissioned by FCDO with the overall aim of identifying evidence on effective health systems strengthening approaches in different contexts, by shedding light on what we know about how HSS interventions can improve health and health system outcomes, where, for whom, when and at what cost (REF). While the focus remained mostly on reviewing the empirical literature and HSS practices, the documents also include broader, more theoretical reflections on the health system and HSS, for example, proposing a definition of what is HSS. One important conclusion of the review is that “most HSS interventions have theories of change relating to specific system blocks, but more work is needed on capturing their spillover effects and their contribution to meeting overarching health system process goals. We make some initial suggestions about such goals, to reflect the features that characterize a ‘strong health system’”<sup>46</sup>. The initial suggestion is represented in Figure A15.

This proposal has been particularly helpful to shape our reflection, the decision to focus our attention on the “health system process goals” as both markers of progress towards health system strengthening and features of a strong health system, and our work to expand, consolidate and operationalize the list of health system process goals<sup>47</sup>.

**Figure A15:** Witter et al’s Health System Strengthening Framework



**FIGURE 1** Health system strengthening (HSS) framework and process goals. Source: authors

<sup>44</sup> Witter S, Palmer N, Balabanova D, et al. (2019) Health system strengthening—Reflections on its meaning, assessment, and our state of knowledge. *Int J Health Plann Mgmt*, 34:e1980–e1989

<sup>45</sup> Witter S, Palmer N, Balabanova D, Mounier-Jack S, Martineau T, Klicpera A, Kruja K, Jensen C, Pugliese Garcia M, Gilson L (2021), *Evidence review of what works for health systems strengthening, where and when?*. ReBUILD and ReSYST research consortia.

<sup>46</sup> Witter et al (2019), cit

<sup>47</sup> Note that part of the work undertaken for the update of the review in 2021 was funded through the HSSEC and that the present work was inspired by and closely links with the recommendations proposed in that review.

## Annex 3: Full list of Health System Process Goals, with examples

This Annex provides a detailed description of each goal, including examples of what progress towards each goal might look like or types of evidence that HSS intervention could provide to illustrate progress towards each HS process goal. It is important to note that examples are only indicative. In addition, reference to empirical examples, available in the literature, of approaches and intervention that ensure progress towards each goal, and how the goal contributes to HSS more broadly are included for each goal to provide an evidence-based justification to the inclusion of each HS process goal, thus making the proposition stronger and more grounded.

	HS process goal	Examples of how HSS interventions might be making progress towards (or not harming) specific HS process goals
Ownership, participation & accountability	Ownership by stakeholders at different levels of the health system and coordination of external stakeholders/donors are emphasised	There is meaningful participation of country stakeholders at all levels of the system during design, implementation and monitoring & evaluation of intervention (for example in coordination or technical working groups); intervention does not duplicate, but coordinates with other existing activities.
	Distributed, dedicated and transformative leadership is supported	Intervention engages directly country leaders – e.g. not bypassed through external organisations (e.g., NGOs, programme implementation units, etc.); local leadership is supported – e.g., not with an exclusive focus on central level leaders; spaces for dialogue between leaders at different levels are created.
	High-quality, effective multisectoral collaboration, linkages and networks are established	Intervention establishes collaborations across sectors (i.e. beyond public and health sectors), for example through joint design/M&E, regular meetings, identification of ‘focal points’ with other sectors within the government (Finance, Education, local administrations, etc.) and beyond – including private sector (healthcare providers, pharmaceutical sector, training institutions), civil society and local communities; necessary legal and regulatory frameworks (e.g., costing, certification, accreditation) are established for evidence-based engagement of private sector.
	Stakeholder and community participation, as well as inclusive and open governance and accountability are promoted and made a priority	Intervention includes activities to ensure accountability and transparency – for example, making information/data publicly available (e.g., facility scorecards), ensuring communities have access to information, skills to understand it and are empowered to provide feedback that is acted upon; community-based organisations (CBOs) are strengthened to monitor, document and analyze the performance of health services as a basis for accountability, quality improvement, advocacy and policy activities; intervention supports publication and dissemination of community monitoring data and recommendations; intervention promotes development of strong informal and formal relationships between communities, community actors and other stakeholders to enable them to work in complementary and mutually reinforcing ways, maximizing the use of resources and avoiding unnecessary duplication and competition.

	Communities are engaged and empowered to manage own health needs and support social and behavioural change	Intervention promotes changes in individual level behaviours (at community level and/or service providers/health worker level) that address social determinants of health; promotion of, and support to uptake of prevention activities; development of locally contextualized policy to improve the enabling environment for behaviour change in individuals, communities, and institutions; support to communities and affected populations to engage in activities to improve their health and their own environment; establishment, strengthening, integration of community health worker (CHWs) programmes, linking with the health systems and with community systems; support health committees or similar community level groups in charge of linking health providers and communities.
Learning & resilience	Teamwork and collaboration are supported	Spaces for open and constructive dialogue are created between levels and across levels of the health system; supportive supervision is provided; peer-learning, feedback and exchange are encouraged.
	Capacity is built at individual, organizational, and system levels	Support/establishment of capacity building activities that are evidence-based (e.g., peer-learning, practical learning, mentoring); capacity building is sustainable and goes beyond <i>ad hoc</i> , individual focus to ensure capacity of organisations (facilities, districts) and system (all levels) which allows better addressing issue of turn-over; technical assistance is sustainable, embedded and responsive to organisational and system needs.
	Learning, adaptation and organisational flexibility are fostered at all levels of the health system	Intervention supports continuous reflection by all stakeholders and taking stock/lessons learned; lessons learned are defined in a participatory manner and are shared between different levels (feedback loops); actors at each level are enabled to have power/decision space to enact changes in line with lessons learned; innovation to make improvements is encouraged, rather than ‘mistakes’ being punished.
	Intelligence, information and evidence reflect diverse perspectives and knowledge, and are used for decision-making at all levels of the system	Intervention support use of information and analytical tools for decision making; capacity for effective use of information is strengthened; formal and informal spaces and channels for sharing information from different levels of the system and different perspectives are established.
	System is able to respond to changes in context (e.g. at societal and ecological levels) and to shocks – absorbing, adapting and transforming to maintain essential services	Intervention creates capacity within the health system to identify and address gaps (for example, in service delivery, quality of care, planning and management), including gaps associated with “shocks”; system capacity to respond to shocks is strengthened, for example, through back-up systems, distributed supplies, planning for emergencies.
		Systems, services and infrastructures are aligned and reflect evidence-based health priorities and equity goals
Use of resources	Reporting systems are integrated, adapted to local needs and user-friendly, and routine health information systems are supported to be timely, complete and accurate	Health system reporting and health information system(s) are supported to provide information and feedback in a timely and accurate manner and that are fit to needs of front line managers as well as higher level decision-makers; intervention-specific reporting requirements are integrated with existing health system reporting; integrated computerised disease information systems are expanded with other essential support functions (finance, personnel, transport, labs, emergency, surveillance, etc.); the



	information system is maintained, including funding and sustainable capacity building (upgrading of HR capacity).
Resources (funds, supplies, etc.) flow in a timely and adequate way to frontline providers, who have flexibility to manage them according to local needs	Funding is disbursed without delays and supplies are provided /available when needed; there is a high level of budget execution; intervention ensures that funds are paid as directly as possible to the level where they are needed; decision-space and skills are available to effectively use the resources (for example, staff is trained or new staff deployed in relation to accounting, supply management, information systems, etc.).
Pharmaceuticals, consumables, infrastructure and medical equipment are available in the right amount, where needed, safely and at the right quality	Sustainable support is provided for procurement and supply chain logistics and capacity/skills building; infrastructure are created where needed and equipped with the right medical equipment; support is provided for pharmaceutical markets, including governance, regulation and quality controls; support to routine data collection on supply availability, quality, usage, wastage, and cost.
Funding is based predominantly on public or compulsory sources; it is stable, predictable and equitable	Domestic resources are mobilised in an equitable and efficient way; public/compulsory pre-payment sources form the main source of health financing; equity in financing is monitored across levels and systems are created to improve it; funding levels are defined in advance and communicated to all stakeholders; financial sustainability of the intervention is taken into account.
Risks are pooled across the wider population, focusing first on vulnerable populations, to ensure cross-subsidies based on a social contract (rich to poor, healthy to sick)	Intervention supports cross-subsidy mechanisms by focusing on poorer/vulnerable groups; mechanisms for financial protection are strengthened; charging of user fee is reduced or eliminated; resources match to universal benefits package, and population awareness of entitlements is ensured (focusing especially on marginalised groups).
Efficiency and resource optimisation are ensured	Public Finance Management (PFM) bottlenecks are identified and addressed; purchasing mechanisms are introduced which reflect a strategic approach and plans; support to ensure that financial management capacity is even across the country; incentives to manage resources well are created (e.g. retaining budget savings with flexibility for their re-use; use of health technology assessments (HTA) and priority setting analysis to determine trade-offs and make decisions on resource-use.
Staff are deployed where needed, with the right skills, attitudes and support	Intervention supports capacity building at all levels and establishment of (electronic) systems to ensure that HRH planning (including training and deployment) is based on information and evidence; support focus on HRH quality and efficiency (e.g., making more efficient use of existing workforce), including task shifting, creation of CHW programmes and other appropriate policies; involvement/consultation of key populations and communities in identification of health staff candidates; systems that recruit and retain staff in hard to serve areas (e.g. favourable terms and conditions) are in place; systems to support HWs are strengthened, including for example continuous professional development, supportive supervision, peer-support and teamwork, motivating working environment, established career pathways, suitable financial and non-financial benefits; in-service training is justified by needs assessment and HRH plan and prioritises, and carried out using approaches that are more cost-effective.

Service delivery	The package of services available to the population is expanded in line with resources and new technologies, with priority given to most cost-effective and equitable ones	Intervention is aligned to national package of quality services; support to rationalise and clarify package of services in line with revenue raised and purchasing arrangements; support to improve cost-effectiveness of service provision and to increase coverage, targeting underserved populations as a priority.
	Services are integrated and delivered at most appropriate levels, with continuity of care and appropriate referrals	Intervention supports improvements in integration of services; stimulates new service delivery approaches, e.g. preventive and promotive care, service delivery in remote communities, and community engagement to increase demand and support self-care.
	Quality of services is ensured, providing safe, appropriate, respectful and person-centred care	Intervention supports improvements to quality of services, through mechanisms/approaches that are both evidence-based and tailored to context (for example, supervision, communication, trainings, and standardization of work processes and recordkeeping); focus on process improvements, management practices, regulatory frameworks, etc.
	A culture of service, commitment, desire for excellence, care and solidarity is developed	Intervention support behavioural change in health workers and managers, encouraging norms of self-care, care for colleagues and compassion and empathy with users.

## Annex 4: Sources used for the development of HS process goals

- Witter S et al (2021), *Evidence review of what works for health systems strengthening, where and when?*. ReBUILD and ReSYST research consortia.
- Papanicolas I et al (forthcoming), *Health System Performance Assessment: A Framework for Policy Analysis*. Geneva: UHC2030/WHO
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# Annex 5: Application of the list of HS process goals to the case studies

## Annex 5.1: Global Fund’s Strategic Initiative/HRH and quality improvement

This case study applies the list of HS process goals to the Global Fund’s “Service Delivery Innovations Strategic Initiative, Component 3: Human Resources for Health and Quality Improvement”. This programme is currently starting implementation, and will take place in Chad, Democratic Republic of the Congo (DRC), Mali, Niger, and Nigeria until the end of 2023.

The programme focuses on strengthening HRH and quality of services, and involves three interrelated components:

- 1) **HRH planning component**, to improve HRH information to inform policy and planning so an appropriate number of the right types of health workers, including community health workers, are available at the PHC level, especially for underserved populations. This component includes use of HRH analytics (for example, Health Labour Market Analysis or iHRIS) and facilitating HRH policy dialogue, planning, and implementation. It also includes capacity building.
- 2) **Quality improvement component**, to implement an innovative approach for integrated supportive supervision (ISS), which includes CIT (collaborative improvement plus training), to improve health worker performance and quality of care for integrated services, with primary focus on HIV, tuberculosis, and malaria, as well as COVID-19, and when possible, for a broader range of primary health care (PHC) conditions. Supportive supervision means a focus on problem-solving with data, teamwork, motivating health workers, and strengthening their capacity. To increase its impact on quality, ISS will be implemented with four evidence-based components: collaborative improvement, training, a web-enabled checklist, and supervision of supervisors. It also includes capacity building.
- 3) **Leadership and Management (L&M) component**, to strengthen leadership and management skills among MoH staff for improved integrated service delivery in health facilities and communities. This component will entail a learning-by-doing intervention for approximately 12 staff per country at the national, provincial, and district/zone levels. Activities include: learning QI methods to support CIT implementation and spread in the field (e.g., supervising the supervisors and extending CIT to other topics, such as child health); developing skills in leadership, management, budgeting, planning, advocacy, and creating a culture of quality; building capacity on QI among HIV/TB/Malaria program staff; taking broader actions on quality at the national, district, and facility level.

The intervention will be implemented in one province per country. In each province, about half of the districts will be targeted for support (about 100–115 health facilities per country).

### Applying the list of HS process goals

**Orange:** potential recommendations for enhancing design in relation to HS process goals or to highlight the assumptions that underlie potential positive impact

**Red:** gaps or missing elements in intervention’s design in relation to HS process goals

	HS process goal	GF / SI – HRH and Quality Improvement project
Ownership, participation & accountability	Ownership by stakeholders at different levels of the health system and coordination of external stakeholders/donors are emphasised	<ul style="list-style-type: none"> <li>Country ownership, coordination with partner efforts, and leveraging partners' political support are listed as some of the essential elements/principles of the programme – <b>how will these principles be monitored and responded to during implementation?</b></li> <li>Engagement with MoH stakeholders at all levels</li> <li>In the HRH planning component, Ta provider will form an HRH technical working group to ensure ownership and coordination. QI and L&amp;M strengthening components will target MoH staff at different levels.</li> <li><b>Might be helpful to include measures to ensure that ownership is ensured and meaningful in practice, beyond 12 MoH staff that are immediately targeted. For example, what has been/will be the country's contribution to the design/tailoring and to the implementation of the intervention and how this engagement is supported; what other stakeholders (beyond MoH) are involved; etc.</b></li> </ul>
	Distributed, dedicated and transformative leadership is supported	<ul style="list-style-type: none"> <li>Focus on managers at all levels of the health system</li> <li>Provision of leadership and management skills that are essential to develop dedicated and transformative leadership</li> <li><b>Relatively small/pilot scale of intervention – it is possible that if focus on 12 staff only might be relatively limited thus lacking the momentum to be effectively transformative. This is an element to be monitored during implementation with the potential of informing evidence on the minimum scale of L&amp;M interventions to support broader change.</b></li> </ul>
	High-quality, effective multisectoral collaboration, linkages and networks are established	<ul style="list-style-type: none"> <li><b>No immediate evidence of aiming to establish multisectoral collaborations, linkages and networks. There is potential to build into the design/implementation of the intervention linkages with MoE for training of staff and MoF for funding, as well as other Ministry or public agency responsible for hiring and payroll management (at central and decentralised levels).</b></li> </ul>
	Stakeholder and community participation, as well as inclusive and open governance and accountability are promoted and made a priority	<ul style="list-style-type: none"> <li>Transparent and evidence-based HRH planning and management would lead to better accountability – <b>it might be helpful to make this hypothesis more explicit and unpack the mechanisms that lead to accountability (including political economy challenges in relation to payroll management), as well as if/how inclusive and open governance might be promoted through HRH planning</b></li> </ul>
	Communities are engaged and empowered to manage own health needs and support social and behavioural change	<ul style="list-style-type: none"> <li>Community participation is promoted through engagement of community structures (e.g., community-based organizations and faith-based organizations) to ensure responsiveness and management of health needs - for example to increase timely use of health services and case-finding</li> <li><b>Intervention does not directly target social or behavioural changes in population/communities (e.g., addressing social determinants of health). However, the intervention is designed to change behaviour of health workers.</b></li> <li><b>It is possible that improvements in quality of care through ISS might lead to increased utilisation of health services and a broader social change by promoting a culture of quality of care and meaningful staff/patient/community engagement. This could be further unpacked in the design, including making potential pathways and assumptions for this to happen explicit. Ways to monitor whether the intervention supports an impact on social and behavioural change should also be detailed.</b></li> </ul>
Learning & resilience	Teamwork and collaboration are supported	<ul style="list-style-type: none"> <li>Integrated supportive supervision and CIT (collaborative improvement plus training) are conducive to improve teamwork and collaborations between peers (for example through collaborative improvement/group problem solving) and between HWs and different levels of supervisors (through supportive supervision, and supervision of supervisors)</li> </ul>

	Capacity is built at individual, organizational, and system levels	<ul style="list-style-type: none"> <li>Capacity built in terms of evidence-based HRH planning, leadership and management, but also for quality service delivery at individual level.</li> <li>There seems to be a hypothesis that capacity building at individual and team level (facility level in selected facilities, and 12 staff at district/zone, province and national levels) would impact beyond those levels to the organisational (broader organisations within which teams are embedded) and systemic levels. However, this hypothesis might need to be further unpacked to clarify how this would happen (pathways/mechanisms of change).</li> </ul>
	Learning, adaptation and organisational flexibility are fostered at all levels of the health system	<ul style="list-style-type: none"> <li>“Learning in practice” will be fundamental to the QI intervention. Facilities will monitor how their own performance changes as they make a change to a process of care, and then adopt that change if helpful. Networks of about 30 facilities will work together on the same quality problem and come together every 3 months to present their data and share learning.</li> <li>Continuous learning is embedded and fostered at all levels through the L&amp;M component</li> <li>Learning and adaptation are supported at country level, with support from WHO Quality Team</li> <li>South-south learning network fosters learning across countries</li> <li>It might be helpful to reflect on organisational flexibility and monitor whether facilities or other organisations (districts, provincial offices, etc.) have sufficient decision space and support to ensure adaptations can be made and sustained.</li> </ul>
	Intelligence, information and evidence reflect diverse perspectives and knowledge, and are used for decision-making at all levels of the system	<ul style="list-style-type: none"> <li>HRH analytical tools and info systems are used to inform evidence-based planning and management</li> <li>MoH staff is aware of the various HRH analytical and planning tools</li> <li>MoH staff is able to organize and lead the HRH planning process</li> </ul>
	System is able to respond to changes in context (e.g. at societal end ecological levels) and to shocks – absorbing, adapting and transforming to maintain essential services	<ul style="list-style-type: none"> <li>The intervention does not explicitly address this element, although there might be indirect links. For example, if the intervention builds capacity as planned, then it would allow for the development of capacity within the health system to identify and address new quality gaps - including gaps associated with “shocks” (e.g., an epidemic).</li> </ul>
	Systems, services and infrastructures are aligned and reflect evidence-based health priorities and equity goals	<ul style="list-style-type: none"> <li>Development of systems and services in line with PHC and HRH priorities in countries – for example, protocols developed for quality improvement will be in line with local standards and procedures; local PHC staff norms will be used for distribution targets</li> <li>Explicit effort to tailor and align approach to local contexts and work that is ongoing on HRH, including plans and information systems. For example, external TA provider will conduct a landscape analysis to understand what currently exists in country (e.g., in terms of HRH data) and what the needs are – might be helpful to reflect on alignment process also from an ownership perspective (#2), given the use of an external TA provider.</li> <li>Explicit focus of the HRH planning component in ultimately improving HWs/CHWs availability, especially for underserved populations (equity goal). Targeted provinces have high rates of poverty and all facilities (including urban and rural) will be targeted in selected districts – how will underserved populations be specifically targeted in the design and implementation of the intervention? How will this equity goal be monitored?</li> </ul>
Use of resources	Reporting systems are integrated, adapted to local needs and user-friendly, and routine health information systems are supported to be timely, complete and accurate	<ul style="list-style-type: none"> <li>Focus on improving and systematizing HRH reporting and information systems, HRH analytical and planning tools</li> <li>HRH information (systems) are made more effective, timely, complete/accurate</li> <li>Helpful to clarify if the plan is for one off exercises (e.g. HLM analysis) or for routine systems (e.g. iHRIS) to be put in place and how they will work/be supported in the long term and to be uniformly applied nation-wide.</li> </ul>

	Resources (funds, supplies, etc.) flow in a timely and adequate way to frontline providers, who have flexibility to manage them according to local needs	<ul style="list-style-type: none"> <li>• information should flow in a timely and regular manner to managers at provincial, district/zone and facility levels</li> <li>• <b>No information on resources available, how they will flow to decentralised levels and how they will be managed locally to support activities</b></li> <li>• There might be potential issues around limited decision-spaces at local level for HRH management (hiring/firing, deployment, etc.) and issues around political economy dynamics (patronage in hiring, etc.) that hamper the HS impact of the intervention, which should be monitored</li> </ul>
	Pharmaceuticals, consumables, infrastructure and medical equipment are available in the right amount, where needed, safely and at the right quality	<ul style="list-style-type: none"> <li>• <b>The intervention does not explicitly address this element. This is because the GF already procures large amounts of commodities through other interventions. However, synergies have been considered explicitly</b></li> <li>• In addition, there might be indirect links through changes in HWs behaviour). For example, if an obstacle to providing high-quality services is that facility-based staff are not doing a good job ordering commodities, the issue could be addressed by the QI intervention. Other indirect links could be identified during implementation, and it will be important to monitor potential impact.</li> </ul>
	Funding is based predominantly on public or compulsory sources; it is stable, predictable and equitable	<ul style="list-style-type: none"> <li>• No information on funding available – however, intervention at this stage is a “pilot project” with external support</li> <li>• <b>Might be helpful to reflect on longer-term funding and financial sustainability of intervention. Have different funding sources been identified, including other donors and governments – e.g. funding for HRH planning/hiring/deployment or for potential incentives? How different sources of funding are/might be integrated? How is this stable/predictable over time?</b></li> <li>• <b>An assumption might be that QI approach can be embedded within system/HR culture and continue without extensive funding – it would be important to reflect on this at design stage (is this the case? How to support this?) and monitor during implementation.</b></li> </ul>
	Risks are pooled across the wider population, focusing first on vulnerable populations, to ensure cross-subsidies based on a social contract (rich to poor, healthy to sick)	Scope of this intervention is too narrow to have relevance for risk pooling.
	Efficiency and resource optimisation are ensured	<ul style="list-style-type: none"> <li>• Improved, evidence-based HRH planning and management would lead to more efficient resource use (see examples on elimination of ghost workers and redistribution of HWs from other settings)</li> </ul>
	Staff are deployed where needed, with the right skills, attitudes and support	<ul style="list-style-type: none"> <li>• Improvement in HRH planning to lead to improved deployment according to staff norms</li> <li>• ISS specifically targeting support of staff for improved quality of care</li> <li>• Attitudes and motivation improved through financial and non-financial benefits, including in particular the benefit of supportive supervision/coaching, teamwork and collaborative improvement approach</li> </ul>
<b>Service delivery</b>	The package of services available to the population is expanded in line with resources and new technologies, with priority given to most cost-effective and equitable ones	<ul style="list-style-type: none"> <li>• Package of service is not necessarily expanded, but quality improved with a focus on integration, cost-effectiveness and underserved populations</li> </ul>

Services are integrated and delivered at most appropriate levels, with continuity of care and appropriate referrals	<ul style="list-style-type: none"> <li>• Quality improvement supported by integrated supportive supervision, which explicitly focuses on service integration beyond HIV/TB/Malaria</li> <li>• Ideally, the QI through ISS+CIT approach will be expanded to other health topics (e.g., child health)</li> <li>• Continuity of care and appropriate referrals are also elements of quality of care which are supported</li> </ul>
Quality of services is ensured, providing safe, appropriate, respectful and person-centred care	<ul style="list-style-type: none"> <li>• Core and essential focus is in ensuring improved quality of care, including safe, appropriate, respectful and person-centred care through mechanisms/approaches that are both evidence-based and tailored to context.</li> </ul>
A culture of service, commitment, desire for excellence, care and solidarity is developed	<ul style="list-style-type: none"> <li>• Improving quality of care through ISS+CIT allows creating an (individual and institutional) culture that focuses on service quality, commitment to patients and patient-centeredness, desire for excellence.</li> <li>• <b>Might be helpful to reflect on scale and timeframe of the intervention and how it can generate sustainable culture shift at system level</b></li> </ul>

## Annex 5.2: IADB’s “Salud Mesoamerica Initiative”

IADB's Salud Mesoamérica Initiative Receives Prestigious International Award | IADB



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