Frameworks and Approaches for Health Systems Strengthening

Devanik Saha
Institute of Development Studies
30 August 2022

Question

What are some of the frameworks/approaches used globally for Health System Strengthening (HSS)?

Contents

1. Summary
2. General Frameworks for Health Systems and HSS
3. Frameworks to Guide Monitoring and Evaluation of HSS Investments
4. Redesigning HSS Frameworks Amidst COVID 19
5. References
1. Summary

What is Health Systems Strengthening (HSS)?

While there are multiple discussions regarding what HSS is, the most popular and cited definition is that of the World Health Organization (WHO). It says: “HSS is the process of identifying and implementing the changes in policy and practice in a country’s health system, so that the country can respond better to its health and health system challenges. Additionally, it is also an array of initiatives and strategies that improves one or more of the functions of the health system and that leads to better health through improvements in access, coverage, quality, or efficiency” (WHO, 2019, p. 11).

Scope of this rapid review:

The aim of this rapid review is to provide a rapid synthesis of the different frameworks and approaches that have been designed and proposed for HSS. The synthesis includes frameworks conceptualised by international development and health agencies as well as those proposed by individual researchers and smaller organisations. While there are multiple frameworks, many of these frameworks build upon the WHO (2007) HSS framework and adapt this as per their needs and perspectives. Furthermore, considering the shake-up of health systems due to the COVID 19 pandemic, this review also includes frameworks which have reconceptualised HSS in response to the pandemic’s impact on health systems.

Key findings:

The rapid review found that a multitude of HSS frameworks exist in the public health literature. Some of these frameworks are modified from the WHO (2007) building blocks frameworks or use this framework as a basic conceptual foundation to propose new frameworks. Furthermore, there is some conflation of health systems frameworks and HSS frameworks in the literature. This review, however, has focused specifically on HSS frameworks.¹

Evidence base:

The frameworks and approaches were extracted from agency documents, journal articles and grey literature.

2. General Frameworks for Health Systems and HSS

2.1 WHO Building Blocks Framework

The most popular and the widely used reference framework is the WHO's 2007 framework, which uses the concept of six building blocks of a health system.

¹ Health system strengthening (HSS) is a more specific term which means strengthening the health system that is “accomplished by more comprehensive changes to performance drivers such as policies and regulations, organizational structures, and relationships across the health system to motivate changes in behaviour and/or allow more effective use of resources to improve multiple health services.” (Chee et al., 2013, p. 85)
Primary objective of this framework: This framework is designed to serve as a guide worldwide to improve health system in any context. It focuses on six critical building blocks of the system (Figure One below), which are assumed to lead towards more equitable and sustainable improvements across health services and outcomes (Manyazewal, 2017).

Figure 1: The Who Health System Framework

This figure has been removed for copyright reasons. The full figure can be found here: https://www.who.int/publications/i/item/everybody-s-business----strengthening-health-systems-to-improve-health-outcomes

Source: WHO, 2007, p. 3

These building blocks (WHO, 2007) are described below.

Service Delivery: Good health services are those which deliver effective, safe, quality personal and non-personal health interventions to those who need them, when and where needed, with minimum waste of resources.

Health workforce: A well-performing health workforce is one which works in ways that are responsive, fair and efficient to achieve the best health outcomes possible, given available resources and circumstances. I.e., There are enough and mix of staff, distributed; they are competent, responsive, and productive.

Information: A well-functioning health information system is one that ensures the production, analysis, dissemination, and use of reliable and timely information on health determinants, health systems performance and health status.

Medical Products, Vaccines & Technologies: A well-functioning health system ensures equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, and their scientifically sound and cost-effective use.

Financing: A good health financing system raises adequate funds for health, in ways that ensure people can use needed services, and are protected from financial catastrophe or impoverishment associated with having to pay for them.

Leadership and Governance: This involves ensuring strategic policy frameworks exist and are combined with effective oversight, coalition building, the provision of appropriate regulations and incentives, attention to system-design, and accountability

This framework has been the most popular HSS approach that has been engaged with, which is understandable given it was conceptualised by the WHO. This popular engagement has led to the framework being critiqued and adapted in different ways as multiple reviews have argued that it falls short of certain aspects as described below.

A common critique of this framework is that it considers these building blocks as separate elements and does not address the interactions and cross connections between these (Itad, 2022). Furthermore, Mounier-Jack et al. (2014) suggest that this framework is mainly organised from a supply perspective that focuses on service delivery but does not pay sufficient attention to the demand side. Therefore, it is not effective enough to holistically evaluate the impact of specific
interventions (disease control programs) on health systems. They recommend that this framework can be improved by making four changes: “integrating the missing ‘demand’ component; incorporating an overarching, holistic health systems viewpoint; explicitly including considerations of decision-making and power; and including scope for interactions between components” (2014, discussion).

In a similar vein, Sacks et al. (2019) suggest that the WHO framework does not adequately address the elements required for quality community health. Thus, they suggest an adaptation of the framework that articulates the need for dedicated human resources and quality services at the community level; it places strategies for organising and mobilising social resources in communities in the context of systems for health; it situates health information as one ingredient of a larger block dedicated to information, learning and accountability; and it recognises societal partnerships as critical links to the public health sector. The explicit aim of this adapted framework is to emphasise the needs for community health and inform relevant efforts to situate community health within national health systems and global guidance (Sacks et al., 2019, abstract). The adapted framework (Figure 1A) is shared below.

**Primary objective of this framework:** This framework aims to inform efforts to situate community health within national health systems and global guidance to achieve health for all.

**Figure 1A: Beyond the building blocks’ expanded framework.**

This figure has been removed for copyright reasons. The full figure can be found here: [https://gh.bmj.com/content/bmjgh/3/Suppl_3/e001384/F1.large.jpg](https://gh.bmj.com/content/bmjgh/3/Suppl_3/e001384/F1.large.jpg)

Source: Sacks et al., 2019, p. 3

There are further adaptations of this framework such as those by Mikkelsen-Lopez et al. (2011) and (De Savigny & Adams, 2009), which focus on the intersections between the building blocks of the health system, rather as separate blocks mutually exclusive from each other.

**2.2 WHO: Primary Care Health Monitoring Conceptual Framework**

This framework (Figure 1B) is part of the WHO’s 2022 “response to its Member States’ request for guidance on how to assess, track and monitor primary health care performance to accelerate progress towards universal health coverage (HC) and health-related Sustainable Development Goals (SDGs)” (WHO & UNICEF, 2022, p. ix).

**Primary application of this framework:**

This framework can be applied in four ways

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2 This is an online journal article hence there is no page number. I have added the relevant section where this has been taken from (As per APA citation rules). I have followed the same style for all references which do not have a page number.
• “Providing a menu of indicators that countries can tailor to their specific contexts to monitor progress across the three primary health care components (integrated health services and public health functions, community engagement and empowerment, multisectoral policies and action)

• Reducing fragmentation of country monitoring by providing a unified monitoring framework for PHC-oriented health systems monitoring that is aligned with and linked to monitoring of UHC and the health-related SDGs

• Linking indicators to the strategic and operational levers of the Operational Framework for PHC in a logical results chain that can be used to plan, target, monitor and inform key actions and interventions to accelerate progress in strengthening PHC-oriented health systems and ultimately drive improvement in health for all

• Providing a focus on underdeveloped measurement areas within a PHC-oriented health system, in support of which this guidance provides recommendations for recently established areas of measurement, including indicators and measurement methods relating to policies and governance, community engagement, selection, organization, and management of health services to achieve a desired model of care, purchasing and payment systems, and systems for improving quality” (WHO & UNICEF, 2022, p. 6).

**Figure 1B: PHC Monitoring Conceptual Framework**

Source: WHO & UNICEF, 2022 p. 11 reproduced under CC BY-NC-SA 3.0 IGO
2.3 WHO 100 Core Health Indicators

In 2018, the WHO released “The Global Reference List” of 100 core health indicators (plus health-related SDGs), which is a standard set of core indicators prioritized by the global community to provide concise information on the health situation and trends, including responses at national and global levels (WHO, 2018, p. 6).

**Primary Objectives of this List:**

- “Guide the selection of priority indicators for national health sector and programme-specific plans and strategies
- Guide monitoring of health priorities and targets at national and subnational levels
- Facilitate more harmonized domestic and external investments in country data systems and analytical capacity
- Provide a basis for the rationalization and alignment of reporting requirements on results by global partners
- Contribute to higher quality regional and global databases of health results
- Reflect evolving public health priorities and as such be updated and maintained regularly” (WHO, 2018, p. 6)

2.4 USAID HSS Frameworks

In 2021, the United States Agency for International Development (USAID) launched their Health System Strengthening Vision 2030, as a part of which they suggested a new HSS framework (Figure Three below) that will guide USAID’s initiatives for worldwide resilient health systems (USAID, 2021). The framework states as a focus, the intermediate outcomes of Equity, Quality, and Resource Optimisation that will lead to positive health outcomes.

**Primary objective of this framework:**

Using this framework will enable interventions to not just emphasis the building blocks, but also take a holistic view of cross-cutting elements such as learning and adaptations, social and behaviour change, enable local organisations, cross-sectoral linkages (Itad, 2022, p. 31).

Figure 3: USAID’s Vision for Health System Strengthening

This image has been removed for copyright reasons. The image can be viewed at [https://www.usaid.gov/global-health/health-systems-innovation/health-systems/Vision-HSS-2030](https://www.usaid.gov/global-health/health-systems-innovation/health-systems/Vision-HSS-2030)

Source: USAID, 2021, p. 7

2.5 United Nations Children’s Fund (UNICEF) HSS Framework

While USAID and WHO’s frameworks were designed for HSS interventions from an overall perspective, UNICEF has also conceptualised a HSS framework to guide their work in their areas of focus. The framework is a seven-step approach as shown below in Figure Four.
**Primary objective of this framework:** This framework has been designed to "assess the impact of HSS efforts on population health and to measure the reduction of identified bottlenecks and the resulting increase in effective coverage of priority interventions as intermediate results towards a strengthened system” (UNICEF, 2016, p. 4).

Figure 4: Seven-step approach to situation analysis and identification of priority actions in HSS

This image has been removed for copyright reasons. The image can be viewed at https://www.unicef.org/media/119741/file/UNICEF%20Health-Systems-Strengthening-Approach.pdf

Source (UNICEF, 2016, p. 7)

### 3. Frameworks to Guide Monitoring and Evaluation of HSS Interventions

#### 3.1 HSS Framework for Tracking Investments (Shakarishvili et al., 2011)

**Primary application of this framework:** This framework was designed to track and comparatively analyse donors’ contributions to strengthening specific aspects of countries’ health systems in multi-donor supported HSS environments.

In 2011, considering the increasing donor funding to support HSS efforts in different countries, Shakarishvili et al. (2011) proposed a new framework (Figure Five below) for tracking and monitoring investments. They suggest that “the four factors suggested as necessary pre-requisites for developing such a common framework - harmonization of conceptual and operational understanding of HSS, agreement on inclusion/exclusion criteria for HSS expenditures, development of a common HSS classification system, and harmonization of HSS programmatic and financial data across donor agencies - are explored, and suggestions on developing various elements of the framework are proposed” (Shakarishvili et al. 2011, abstract).
The proposed framework (Figure Five above) uses a term ‘health system component’ as the basis of its structure, to describe the concepts, which in various frameworks are labelled differently (e.g. ‘building blocks’, ‘functions’, ‘processes’). The classification is composed of four health system components: ‘health services’, ‘stewardship and governance’, ‘financing system’ and ‘monitoring and evaluation (M&E) / health information system’, each representing a blend of health systems building blocks, functions, and processes. In the context of resource tracking, the four ‘components’ are identified as the eventual targets of HSS interventions for improving health systems performance (Shakarishvili et al., 2011).

3.2 WHO Monitoring and Evaluation Framework 2010

**Primary application of this framework:** To enable targeted monitoring and evaluation of health system strengthening efforts in different countries

In 2010, in collaboration with the WHO, the International Health Partnership and related initiatives (IHP+) initiative launched a joint monitoring and evaluation framework (Figure Six below) for better monitoring and evaluation of HSS efforts. “This framework is country-focused and supportive of country needs while also providing a basis for global monitoring” (WHO, 2010, p. vii). This framework demonstrates “how health inputs and processes (e.g., health workforce and infrastructure) are reflected in outputs (e.g., interventions and available services) that in turn are reflected in outcomes (e.g., coverage) and impact (morbidity and mortality). The added value of the framework is that it brings together indicators and data sources across the results chain in its entirety, i.e., from "inputs/processes", "outputs", and "outcomes", to "impact".” (WHO, 2010, p. vii)

Figure Six Monitoring and evaluation of health systems strengthening

This figure has been removed for copyright reasons. The full image can be viewed at https://apps.who.int/iris/bitstream/handle/10665/258734/9789241564052-eng.pdf

Source: WHO, 2010, p. viii

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3 IHP+ is now known as UHC2030. For more details, see https://www.uhc2030.org/about-us/history/
### 3.3 Evaluation Framework for Global Fund Grants

In 2012, Katz et al. designed an evaluation framework (Figure Seven below) which was designed to support the Global Fund\(^4\) for evaluating and assessing its HSS oriented grants. The framework is organised into five sections: background analysis, process evaluation, assessment of HSS effect on health and health systems outcomes, assessment of overarching system-wide effects, and formative evaluation (Katz et al., 2012).

**Primary objective of this framework:** This framework was used to evaluate HSS programs by assessing four major areas: "a) Strengths and challenges of the management of the HSS program. b) Effects of the HSS program on system and health outcomes by evaluating the performance of the outcome indicators targeted in the program’s results framework c) any positive or negative effects the HSS program may have had on the health system. This assessment aims to determine whether the HSS program strengthened or weakened an array of health system elements relevant to the program. d) Whether or not the HSS program’s intervention strategies need to be modified due to changes in the country’s HSS environment.” (Katz et al., p. 2).

However, this framework can also be useful for other programs.

**Figure 7 Framework for HSS Program Evaluation**


**Source:** Katz et al. 2012, p. 3

### 3.4 HSS Framework by Witter et al. (2019)

In a comprehensive literature review of HSS interventions commissioned by the Foreign, Commonwealth & Development Office (FCDO), Witter et al. (2019) argue for the urgent need of a framework for design and evaluation of HSS interventions. They found that while “most HSS interventions have theories of change relating to specific system blocks, but more work is needed on capturing their spill over effects and their contribution to meeting overarching health system process goals” (Witter et al., 2019, abstract). Based on their literature review, Witter et al. (2019) propose a suggestive framework (Figure Eight below) that characterises a strong health system.

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\(^4\) The Global Fund is a worldwide movement to defeat HIV, TB and malaria and ensure a healthier, safer, more equitable future for all.
3.5 ITAD HSS Model

This framework (Figure Nine below) builds upon the Witter et al. (2021) framework in the previous section “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” (Itad, 2022, p. 11).

Primary objective of this model:

This model has not been proposed to be explicitly used as a stand-alone HSS framework but is a guide towards the development of an approach to HSS evaluation

Figure 9: Health system strengthening model

This figure has been removed for copyright reasons: The full figure can be viewed at https://www.itad.com/wp-content/uploads/2022/07/HSSEC-WG1-FA3-Conceptual-model-and-monitoring-learning-tool.pdf

Source: Itad, 2022, p. 11

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. A key advantage of this model is that it “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” (Itad, 2022, p. 11).

The next two sections focus on HSS frameworks which have been designed and conceptualised for specific public health issues. A review of HSS literature (Itad, 2022, p. 30) found many “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.” Two such frameworks are presented below.

3.6 Maternal Health

Ergo et al. (2011) developed a framework (Figure 10 below) focused on maternal, neonatal, and child health (MNCH). The three boxes in the central part of the framework represent the main components of the health system:

a) health care sector
b) community
c) households

Each of these components encompasses various interconnected elements of the health system.

“The four knobs at the top allow breaking down HSS initiatives and analysing how these initiatives trigger changes in the health system, whether and how these changes affect the coverage and quality of MNCH interventions, and what the impact is on MNCH morbidity and mortality. The control knobs represent the types of ‘tools’ available to the different actors—including but not limited to the policymakers—to address weaknesses in the system. These are: financing, organisation, regulation, and communication” (Ergo et al., 2011, p. 4). This framework has been inspired by the control knobs framework by Roberts et al. (2003), which is one of the most used and cited health systems frameworks.

**Primary objective of this framework:**

The framework has four potential applications.

- “As a structure to organize data, by describing the current features of a health system in a snapshot, or to dynamically assess the changes within a health system over time
- As a diagnostic tool, to identify health systems strengths and weaknesses
- As a programming tool, to identify priority areas for assistance, and to thoughtfully design approaches to address the strengths and weaknesses determined in the diagnostic phase
- As a research tool, to trace the linkages between an initiative introduced to improve results, the elements of the health system that are impacted by the initiative, the gaps that remain and the ultimate impact of the initiative” (Ergo et al., 2011, p. 8)
3.7 WHO Climate Resilience HSS Framework

**Primary objective of this framework:** To provide guidance for health systems and public health programming to strengthening their capacity for protecting health in an unstable and changing climate.

In 2015, the WHO released a new HSS framework (Figure 11 below), which aims “to provide guidance for health systems and public health programming to increase their capacity for protecting health in an unstable and changing climate. By implementing the 10 key components laid out in this framework, health organisations, authorities and programmes will be better able to anticipate, prevent, prepare for, and manage climate-related health risks” (WHO, 2015, p. 1). “Each component plays an important role in strengthening system capacity to address climate change. As a systemic approach, there are strong connections between the various components that serve to reinforce one another. (WHO, 2015, p. 13).
4. Redesigning HSS Frameworks Amidst COVID 19

The COVID 19 pandemic has impacted health systems globally in unprecedented ways. This impact has led to some researchers re-evaluating existing HSS frameworks and modifying them to accommodate for tackling future challenges and pandemics. Post pandemic, multiple public health researchers are stressing the needs for developing more ‘resilience’ in health systems (El Bacheraoui, 2020; Seward et al., 2021; Shaikh, 2021). Consequently, some researchers have proposed new HSS frameworks which focus on building the resilience of health systems.

Using the WHO building blocks framework as a base, Haldane e al. (2021) propose a new HSS framework (Figure 11 below) by emphasising community engagement as the core to health systems resilience. The framework includes the addition of key “public health functions such as testing, contact tracing, disease surveillance, and non-pharmaceutical public health interventions, which are often separate from health service delivery, but are critical to ongoing population health and pandemic responses” (Haldane et al. 2021, p. 964).

In addition to community engagement, Haldane et al. (2021) also emphasise the importance of collaborations with non-health sectors in the framework to support address the social determinants of health and generate positive outcomes for all sections of the society (health equity and outcomes element). Haldane et al’s (2021) modified framework is similar to that of Sacks et al. (2019), discussed in Section One, which also emphasised community engagement.

In addition to Haldane et al. (2021), Takian & Raoofi (2021, paragraph three) also draw upon lessons from the COVID 19 pandemic and advocate (although they do not design a new framework per say) for “adding two blocks to the WHO framework a) meaningful intersectoral collaboration b) functioning global health surveillance and response system”. These domains were instrumental in countries such as South Korea, Singapore, and New Zealand for managing the COVID 19 pandemic. They further argue “although both proposed components appear to be at the heart of governance, the experience of covid-19 has shown that neither has been fully addressed as a subset of governance in many countries” (Takian & Raoofi, 2021, paragraph three).
5. References


Takian, A., & Raoofi, A. (2021, April 14). *We must redesign the WHO’s building blocks to create more resilient health systems for the future.* The BMJ. https://blogs.bmj.com/bmj/2021/04/14/we-must-redesign-the-whos-building-blocks-to-create-more-resilient-health-systems-for-the-future/


WHO & UNICEF (2022). *Primary health care measurement framework and indicators: monitoring health systems through a primary health care lens* https://www.who.int/publications/i/item/9789240044210

Some further readings
Suggested citation


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