Leadership, Management, and Governance Evidence Compendium

**From Intuition to Evidence:
Why Leadership, Management, and Governance
Matters for Health System Strengthening**

Rapid Review of the literature: The influence and impact of leadership, management, and governance on health financing, human resources for health, health information systems, Medical products, vaccines, and technologies, and health service delivery

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The Leadership, Management, and Governance Project

The U.S. Agency for International Development (USAID)-funded Leadership, Management, and Governance Project (LMG) strengthens health systems, enabling them to deliver more responsive services to more people. LMG does this by developing inspired leaders, sound management systems, and transparent governance practices at the individual, network, organizational, and government levels (Figure 1). The LMG Project builds on 30 years of organizational development best practices to empower leaders, managers, and teams to meet and master their most pressing challenges.

Figure 1: Conceptual Model: Leading, Managing, and Governing for Results

The LMG project achieves these objectives by:

- Promoting enhanced performance improvement processes for individuals and teams that are driven by country leadership

- Using participatory processes and gender-aware approaches that enable health leaders and policy-makers to address their own challenges, and achieve results

- Building and using evidence-based approaches

- Leveraging partnerships through public and private investments in leadership, management, and governance for greater health gains worldwide.

Without strong leadership, management, and governance (L+M+G) practices and capabilities at all levels of the health system, the Sustainable Development Goals related to health system performance, such as target 3.8 "achieve universal health coverage, including financial risk protection, access to quality essential health care services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all" will be difficult to achieve and sustain (United Nations, 2015).

Introduction

BACKGROUND

A health system encompasses the organizations, people, and actions that promote, restore, and maintain communities' and individuals' health; its performance is determined by factors beyond those directly related to clinical services. The World Health Organization (WHO) categorizes these interrelated aspects of health system functioning into six building blocks: service delivery; health workforce; information; medical products, vaccines, and technologies; financing; and leadership and governance. In strong health systems, all six building blocks work together to provide timely, affordable, high-quality services, where and when individuals need them (Figure 2). When one building block is weak, the rest of the health system often falters. (WHO, 2007)

Figure 2: WHO Health System Framework (WHO, 2010)
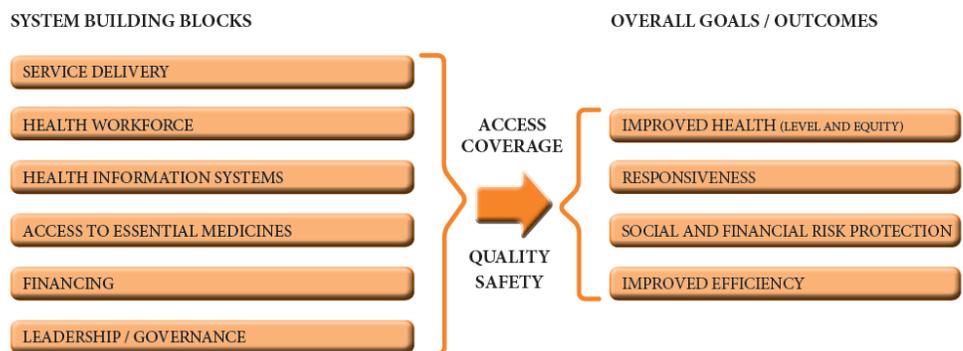
The WHO's description of the leadership and governance building block, which the LMG Project assumes to also include management, highlights the important role of L+M+G in laying the foundation for health systems' overall performance: "Leadership and governance involves ensuring strategic policy frameworks exist and are combined with effective oversight, coalition building, regulation, attention to system-design, and accountability." For this compendium we have chosen to focus on L+M+G practices rather than theoretical functions or form so that the results could easily inform intervention designs and implementation practices. Table 1 lists key L+M+G practices as defined for this review.

Table 1: Leadership, Management, and Governance Practices (MSH, 2010)

Leadership	Management	Governance
Scanning	Planning	Cultivating accountability
Focusing	Organizing	Engaging stakeholders
Aligning and mobilizing	Implementing	Setting a shared direction
Inspiring	Monitoring and evaluating	Stewarding resources

While the importance of L+M+G has been acknowledged, gaps in the evidence base present a challenge for policy makers and implementers who want to use sound evidence to inform their decisions, especially in low and middle income countries (LMIC).

A recent publication from the WHO's Alliance for Health Policy and Research asserts that discussions of leadership in the context of health systems have largely focused on high-income country experiences and that most have "been inward looking, examining the managerial competence of the health-system leadership in the design and delivery of health programmes by public health services." (Alliance for Health Policy and Research, 2016)

There is a similar lack of research related to health system governance. Though Ciccone's systematic review describes the impact of governance on health outcomes, there is minimal discussion of its influence on the building blocks or on overall health system performance (Ciccone, Vian, Maurer, & Bradley, 2014).

PURPOSE OF THE LEADERSHIP, MANAGEMENT, AND GOVERNANCE EVIDENCE COMPENDIUM

Designed to be useful to USAID, other potential funders, and the broader public health community, this compendium contributes to the evidence base for continued investment in L+M+G activities by examining and documenting the evidence that exists regarding L+M+G's role in strengthening health system performance in LMIC .

This compendium draws on existing evidence documented in peer-reviewed and grey literature to describe the mechanisms through which change occurs within the health system. It examines the links between L+M+G capacity-strengthening efforts and health system performance within each of the other building blocks through five briefs that discuss the evidence that illustrates L+M+G's role in the health system and the mechanisms through which L+M+G influences health system functioning.

METHODOLOGY

The LMG Project's monitoring, evaluation, and research (MER) team collaborated with Management Sciences for Health (MSH) technical experts

to scan peer-reviewed and gray literature for documented evidence of L+M+G's influence and impact on health system performance and outcomes.

The literature search was guided by a rapid assessment methodology and took place over approximately nine months. The resulting compendium is not meant to be a systematic nor exhaustive review of the literature, but rather a formative evaluation of the state of the evidence to engender discussion and inform further research and study.

Key Definitions

The lack of standardized definitions is a significant challenge in studying L+M+G and their interaction with the health system and this limited consensus on key concepts leads to a plethora of conceptual models and frameworks, further complicating research efforts. Because the health system itself is a complex, adaptive system, the building block functions are not discrete entities. Interactions between building blocks are multi-directional and do not lend themselves well to rigorous definitions of functions and concepts. In this compendium, we used the following key terms and definitions from the sources below (see Appendix 1 for full definitions):
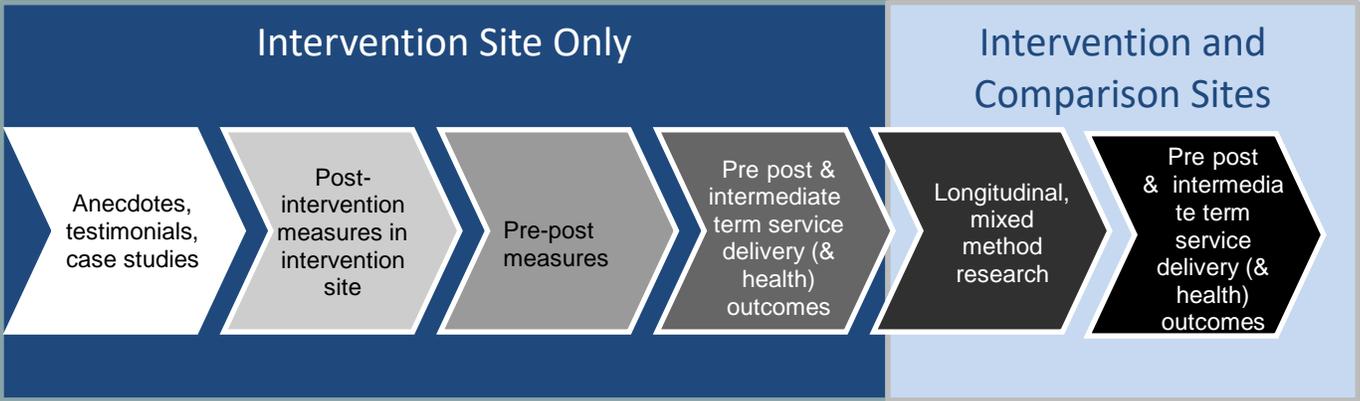
- **Health System Building Blocks**: World Health Organization. *Everybody's business: strengthening health systems to improve health outcomes: WHO's framework for action* 2007

- **Building Block Functions and Characteristics**: Wendt. *Health System Rapid Diagnostic Tool: Framework, Operational Guide, and Metrics to Measure the Strength of Priority Health System Functions*, FHI360; 2012

- **Leadership, Management, and Governance Practices and Functions**: MSH/LMG project as well as *UN Economic and Social Commission for Asia and the Pacific,* 2009, and Barbazza & Tello. *A review of health governance: definitions, dimensions and tools to govern.* Health Policy. 2014 May; 116(1) and the Pharmaceutical Management Framework (Management Sciences for Health, 2012)

> The team used the following working definitions for L+M+G in this compendium:
>
> - **Leadership**: mobilizing others to envision and realize a better future (Management Sciences for Health, 2010)
> - **Management**: efficient planning and use of resources to produce intended results (Management Sciences for Health, 2010)
> - **Governance**: the process of decision making and implementation of those decisions (UN Economic and Social Commission for Asia and the Pacific, 2009)

Defining evidence is equality challenging in this context. In this compendium, we have chosen to include information from implementation documentation and peer reviewed research. Figure 4 depicts the continuum of evidence included in the compendium.

Figure 2: Continuum of Evidence in the LMG Evidence Compendium

Intervention Site Only				Intervention and Comparison Sites	
Anecdotes, testimonials, case studies	Post-intervention measures in intervention site	Pre-post measures	Pre post & intermediate term service delivery (& health) outcomes	Longitudinal, mixed method research	Pre post & intermediate term service delivery (& health) outcomes

Inclusion Criteria

Literature was considered for inclusion in the evidence compendium if it met the following criteria:

1. Not a book (defined as anything with an IBSN), opinion piece, or editorial;

2. Published in 2011 or after;

3. Concerned principally with one or more LMIC (high income countries were excluded);

4. Contained L+M+G concepts (using the definitions above);

5. Contained at least one other health building block from the WHO framework; and

6. Detailed how the L+M+G concepts influenced and impacted the building blocks by noting either the effect of L+M+G done well, noting the effects of L+M+G done poorly, or the effects of its absence altogether.

The following relevancy and evidence scales were used to score all documents included in the compendium:

Relevancy Rating Scale (relevancy rating 1-3 included in the compendium):

1. Intervention and discussion aren't related to L+M+G but the article provides recommendations about how L+M+G could have influenced health system building block outcomes.

2. Article presents programmatic and/or research findings of a health system intervention without a specific L+M+G element but the article identifies ways in which strong L+M+G practices positively influenced outcomes **OR** the lack of L+M+G negatively influenced outcomes.

3. Article presents programmatic and/or research findings of an explicit L+M+G intervention and its results on a specific health system building block.

Level of Evidence Rating Scale (Level 2-5 included in the compendium):

1. **No measurement points (anecdotal, testimonial data)**
   This includes:
   Case studies or lessons learned if they only provide anecdotal or testimonial evidence

2. **One measurement point only (cross-sectional or post-intervention measures without comparison site)**
   This includes:
   - Case studies or lessons learned if they present cross-sectional or post-intervention measures only
   - Qualitative studies if respondents were interviewed only one time
   - Quantitative studies where data were only collected at one point in time
   - Mixed methods studies where data were only collected at one point in time

3. **Two measurement points only (pre-/post-intervention measures only without comparison site)**
   This includes:
   - Case studies, if they report pre-post intervention measures only
   - Qualitative studies if respondents were interviewed pre-/post-intervention
   - Quantitative studies where data is only collected at two points in time
   - Mixed methods studies where data is only collected at two points in time

4. **Three measurement points (pre-/post- and intermediate-term measures without comparison site)**
   This includes:
   - Case studies with pre-/post- and intermediate term measures
   - Qualitative studies if respondents were interviewed pre-/post- and intermediate
   - Quantitative studies where data were only collected at three points in time
   - Mixed methods studies where data were only collected at three points in time

5. **Multiple measurement points (three or more) (pre-/post- and intermediate-term measures, time series, longitudinal and/or mixed methods research with comparison site(s))**

Literature Search Methodology

The literature search resulted in 6,839 documents that met the search criteria, including 1,247 peer reviewed articles and 5,592 grey literature documents produced by MSH or externally. Of these, the team deemed 508 relevant for full review. The rate of relevance of the documents returned after the first stage of review was seven percent. (For a list of search terms used, please see Appendix 2.)
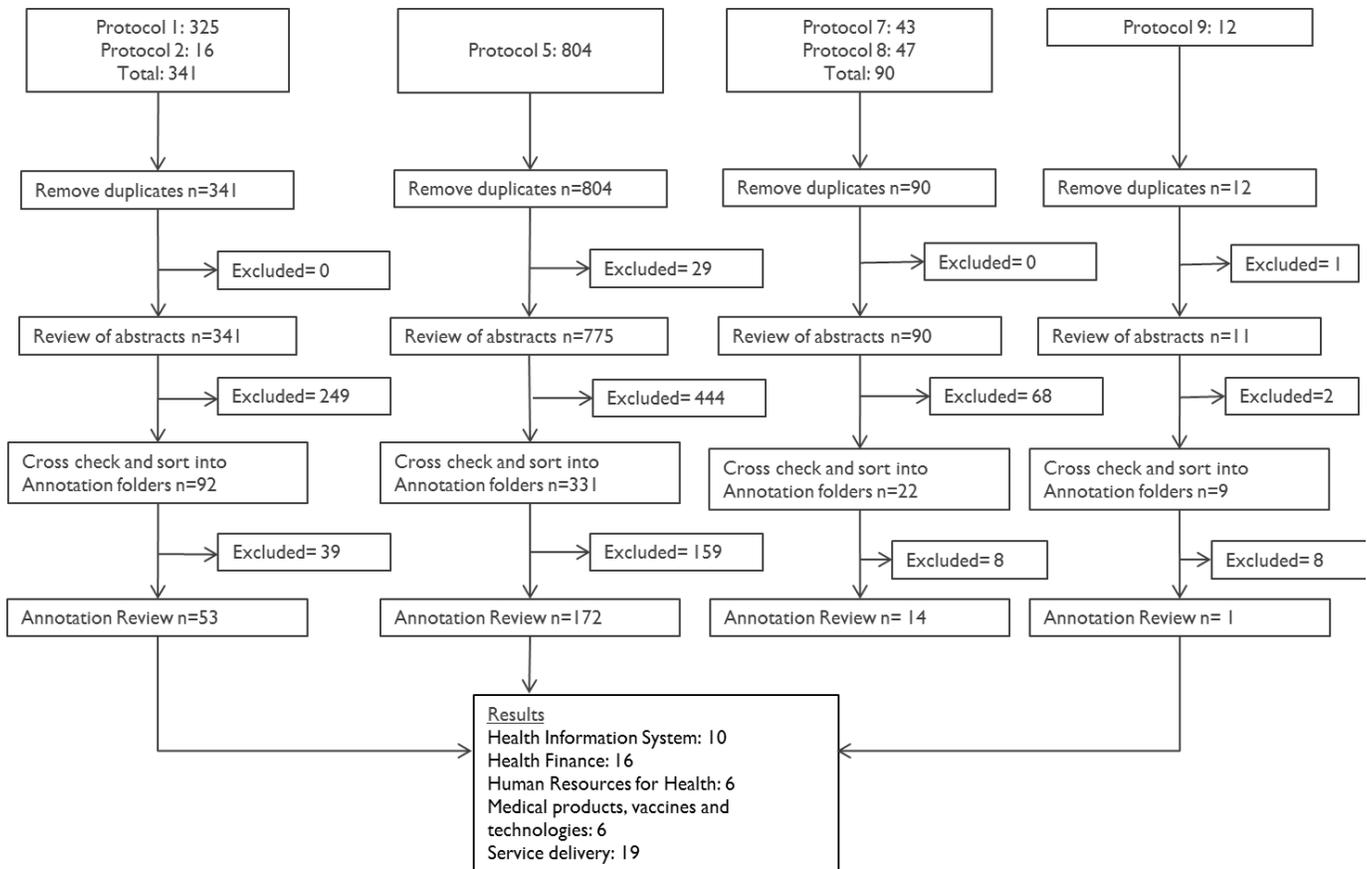
Journal articles were identified via the MEDLINE database, in searches run between May 11 and September 2, 2016. The MER compendium team, MSH technical experts, and a librarian identified search terms focusing on aspects of leadership, management, governance, and the health systems building blocks.

These initial search terms were adapted into Protocol 5 (see Appendix 2 for details on all protocols). Additional searches run in MEDLINE (https://www.ncbi.nlm.n ih.gov/pubmed/) integrated feedback from technical experts (Protocols 7 and 8). One additional search was run in the PubMed database to fully include the journal, Global Health Science and Practice (Protocol 6). All search protocols were limited to articles published between 2011 and 2016 that were available in French, English, or Spanish. The number of returns for each protocol was as follows:

- Protocol 1 produced 324 returns.

- Protocol 2 returned only 16 articles.

- Protocol 5 was the largest by far, and contained roughly 800 articles, a small number of which had also been returned under Protocols 1 and 2. These duplicates were filtered out.

- Protocols 7 and 8 had their duplicates filtered out before they were deposited in Zotero. Each had almost 50 articles.

- Protocol 9 had the most duplicates filtered out before it was deposited in Zotero. It had 12 returns, including 1 remaining duplicate, which was removed.

Figure 5 depicts the peer-reviewed literature search returns and the review process.

Protocol 1: 325 Protocol 2: 16 Total: 341	Protocol 5: 804	Protocol 7: 43 Protocol 8: 47 Total: 90	Protocol 9: 12
Remove duplicates n=341	Remove duplicates n=804	Remove duplicates n=90	Remove duplicates n=12
→ Excluded= 0	→ Excluded= 29	→ Excluded= 0	→ Excluded= 1
Review of abstracts n=341	Review of abstracts n=775	Review of abstracts n=90	Review of abstracts n=11
→ Excluded= 249	→ Excluded= 444	→ Excluded= 68	→ Excluded=2
Cross check and sort into Annotation folders n=92	Cross check and sort into Annotation folders n=331	Cross check and sort into Annotation folders n=22	Cross check and sort into Annotation folders n=9
→ Excluded= 39	→ Excluded= 159	→ Excluded= 8	→ Excluded= 8
Annotation Review n=53	Annotation Review n=172	Annotation Review n= 14	Annotation Review n= 1

Results
Health Information System: 10
Health Finance: 16
Human Resources for Health: 6
Medical products, vaccines and technologies: 6
Service delivery: 19

Grey Literature

The grey literature review was conducted differently than the peer reviewed one, though the acceptance criteria were the same. The MER team developed a list of organizations and databases external to MSH as well as a list of groups and databases within MSH.

External Grey Literature
The compendium team used the search engine on each of the external organizations' websites to identify documents. If available, filters were used to restrict the search by date, language, subject area, and country. Document type was also restricted as possible, to exclude books, financial statements, and work plans. In two cases, a search facility was not used, but certain relevant collections in the organization's website were reviewed manually.

The search terms used in most cases were "leadership," "management," and "governance." The number of results for each were combined to give a count of the initial returns. The abstract review was undertaken by reading

executive summaries and conclusions where available or by scanning the relevant sections of the document where necessary.

The following external organizations were searched :

DFID/R4D (287 returns) www.gov.uk/government/publications / http://r4d.dfid.gov.uk/Search/SearchResearchDatabase.aspx

Knowledge for Health (K4H) (2437 returns) https://www.k4health.org/

WHO (990 returns) http://who.summon.serialssolutions.com/

The Alliance for Health Policy and Systems Research (AHPSR) (124 returns) http://www.who.int/alliance-hpsr/resources/publications/en/

Health, Financing and Governance (HFG) (539 returns) https://www.hfgproject.org/resources/publications/

Capacity Plus (102 returns) https://www.capacityplus.org/

Development Experience Clearinghouse (DEC) (516 returns) https://dec.usaid.gov/dec/content/powersearch.aspx

Measure Evaluation (162 returns) https://www.measureevaluation.org/

Boston University Center for Global Health and Development (143 returns) http://www.bu.edu/cghd/publications/?topic_id=1650

Deliver Project (44 returns) http://deliver.jsi.com/

Internal

The compendium team took a three-pronged approach to collect MSH's internal literature.
1. An internal announcement and follow up with project staff
2. Internal emails and follow up with identified technical experts
3. Search of MSH's institutional memory

All MSH internal literature returned from these three steps were reviewed for relevance.

Figure 6 presents the results from the grey literature search.

Results by Health Building Block

Table 2 presents a summary of the literature search results by health building block.

Figure 4: External and Internal Grey Literature Search Results and Review Process
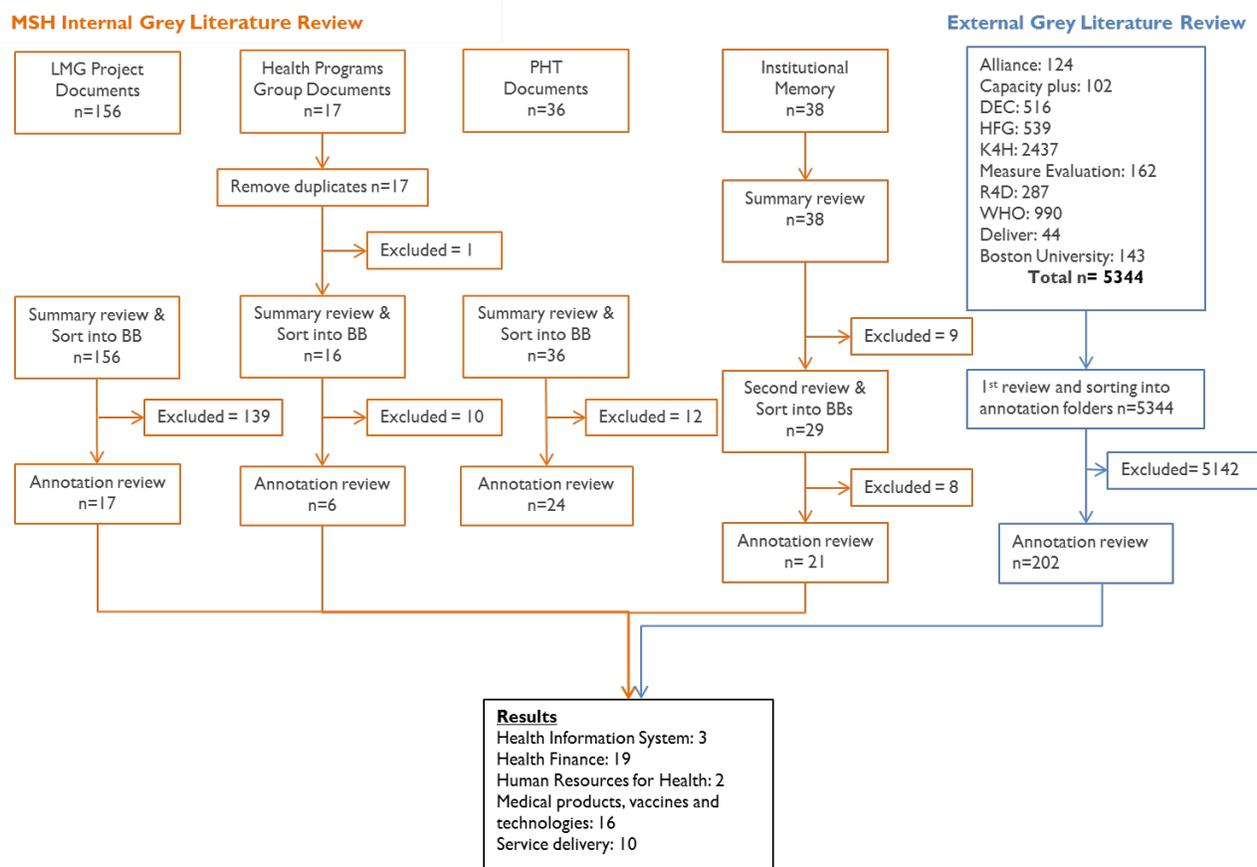
Peer Reviewed Literature

Health Building block	Search Total	Total Retained
Service Delivery	63	19
Health Finance	26	16
Health Information Systems	42	10
Human Resources for Health	49	6
Medical products, vaccines and technologies	15	6

Grey Literature

| Health Building block	Search Total	Total retained
Service Delivery	88	10
Health Finance	46	19
Health Information Systems	20	3
Human Resources for Health	46	2
Medical products, vaccines and technologies	46	16

L+M+G and Medical products, vaccines and technologies

PHARMACEUTICAL SYSTEMS

Ensuring equitable access to and appropriate use of medical products, vaccines, and health technologies is a core function of a health system. The components of the health system that fulfil this function together constitute the pharmaceutical system which includes "all the structures, people, resources, processes, and their interactions with the broader health system that aim to ensure equitable and timely access to safe, effective, quality pharmaceutical products and related services that promote their appropriate and cost-effective use to improve health outcomes" (Hafner, Walkowiak, Lee, & Aboagye-Nyame, 2016). For this compendium, we have used the pharmaceutical management framework (Figure 1) to organize the findings of the literature review. The framework includes four key pharmaceutical management functions: selection, procurement, distribution, and use which are supported by a set of core management support systems: organization, financing, information management, and human resource management. Policy, law, and regulation supported by good governance underpin the entire framework. (Management Sciences for Health, 2012)

The Interaction of the Medical Products, Vaccines, and Technologies Building Block with Other Building Blocks

Linkages and dynamic relationships with all of the other health system functions contribute to the access and use goals of the medical products, vaccines, and health technologies building block. High quality patient-

Figure 1. Pharmaceutical Management Framework (Management Sciences for Health, 2012)
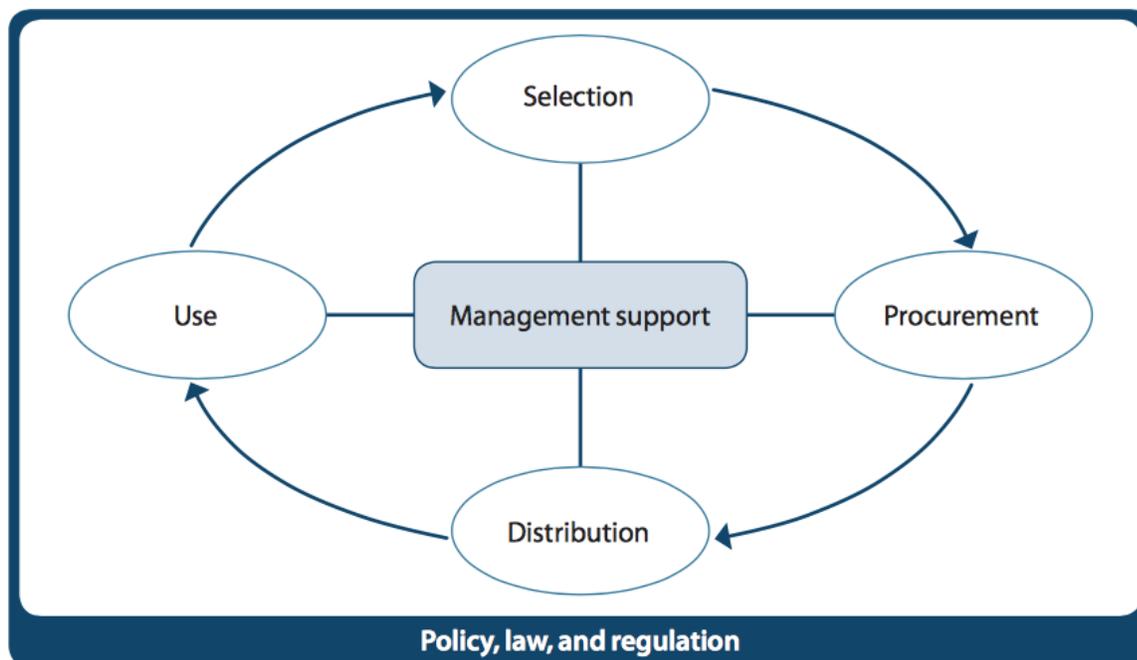
> **"G**ood governance can help to improve the performance of pharmaceutical systems, reduce vulnerability to corruption and safeguard limited resources.**"**

centered service delivery supports the safe and effective use of pharmaceuticals. Qualified health care providers and pharmaceutical professionals must be present to manage the supply system and ensure that clients receive medicines that are appropriate for their needs. Adequate and sustainable financing for medicines purchase and system functioning and timely and are also essential inputs. The leadership and governance function ensures that the policy and legal framework, structures, and systems for organizing, financing, and regulating the system and facilitating coordination, participation and accountability are established and enforced.

What does L+M+G look like in the context of the pharmaceutical system?

Medicines are critical for high quality health service delivery and when they are used appropriately, they save lives and improve the health of individuals and families. Conversely, lack of access to essential medicines, their inappropriate use or the use of products that are ineffective, poor quality or harmful can compromise patient safety and contribute to poor health outcomes. Moreover, medicines also promote trust and participation in health services and poor availability can reduce satisfaction with and demand for services (Management Sciences for Health, 2012). While the potential for positive impact is evident, spending on pharmaceuticals can also engender risks for ministries of health and donors. Spending on medicines accounts for up to 67 percent of total health expenditures in some countries (Xu et al., 2010) and over 40 percent of the Global Fund to Fight AIDS, Tuberculosis and Malaria total expenditures are for medicines, health products, and equipment (The Global Fund 2015).

> The high value of medicines, complex supply chain processes, sizable public pharmaceutical budgets and discretionary decision making make the pharmaceutical system especially vulnerable to fraud and corruption (Cohen, Mrazek, & Hawkins, 2007).

Stewardship relates to the role of government in "defining and acting on priorities" to achieve health policy objectives and "setting standards" (Miralles 2010). In the pharmaceutical sector, policy objectives include ensuring access to safe, effective, quality essential medicines and services that support their appropriate use to safeguard the public interest. Effective stewardship requires "leadership to articulate a common vision, [and] effective regulation" (Bornbusch, Dickens, Hart, & Wright, 2014). It also involves ensuring that resources within the pharmaceutical system are used responsibly and appropriately. Governance is about how decisions are made and implemented to achieve policy objectives (UNESCAP 2009). Management is concerned with communicating expectations and planning and using resources efficiently to produce the intended results. Good governance can help to improve the performance of pharmaceutical systems, reduce vulnerability to corruption and safeguard limited resources (Strengthening Pharmaceutical Systems, 2011). Effective leadership and management and good governance is essential to all pharmaceutical system functions.

LITERATURE SEARCH RESULTS

Fifteen peer reviewed articles related to pharmaceutical systems made it through the initial screening process. Of those, six were included in this chapter of the compendium. Additionally, the team reviewed 46 pieces of grey literature and selected 14 for inclusion in this chapter. Of the 29 articles included in this review, 15 were considered highly relevant because they presented findings of an explicit L+M+G intervention and included results that were relevant for the pharmaceutical system. An additional five documents presented findings of a health system intervention that did not include a specific L+M+G element but identified ways in which L+M+G practices, or the lack thereof, influenced pharmaceutical system outcomes. The strength of evidence varied between documents from anecdotal to that with multiple points of measurement. A summary of the accepted articles and documents is presented in Table 1.

INFLUENCE OF L+M+G ON THE PHARMACEUTICAL SYSTEM

This section presents key findings of the pharmaceutical system literature review organized by the key functions of the pharmaceutical system (selection, procurement, distribution, and use) management support, and policy, laws and regulation. Selection and use functions had the strongest evidence across the peer reviewed articles.

Selection

Essential medicines are those that "satisfy the priority health care needs of the population" and should be selected on the basis of public health need, disease prevalence, clinical safety and efficacy, and comparative cost information (WHO | Essential medicines, n.d.). To ensure efficacy, safety, and cost-effectiveness of essential medicines and commodities and minimize undue influence and inconsistency, decision making must be guided by clearly defined criteria and based on sound and unbiased evidence. The criteria used to select these pharmaceuticals should be derived from thorough discussion and acceptance among a multidisciplinary committee of experts. Selection committee experts can interpret data and evaluate the safety of medicines in their area of expertise. Once agreed upon, the clearly-defined criteria should be published and potential conflicts of interest among members declared and managed (MSH , 2012, Strengthening Pharmaceutical Systems, 2011).

The process for selection of medicines included in a national, sub-national or facility essential medicines list therefore requires the application of strong governance practices. Developing a structure for the medicine selection committee that provides accountability and delineates authority is essential to engage key stakeholders and steward resources. Additionally, ensuring transparency helps safeguard the selection process from conflict of interest.

Table 1. Summary of Accepted Articles

Author, Year, Abbreviated Title	Type of Study or Document	Level of Evidence	Level of Relevancy	L+M+G Construct	Pharmaceutical System Construct
Peer-Reviewed					
Lima-Dellamora et al. (2014). An analytical framework.	Literature Review	2	3	Governance	Selection
Mkoka et al. (2014). Availability of drugs.	Qualitative study, cross-sectional survey	2	2	Leadership, management, governance	Distribution Management support
Liang et al. (2014). Governance structure reform.	Statistical analysis using segmented linear regression	4	3	Governance	Use
Mori et al. (2012). Priority setting for the implementation.	Qualitative study	2	3	Governance	Selection
Zou et al. (2014). Is nationwide special campaign.	Statistical analysis using non-parametric tests	4	2	Leadership, management, governance	Use
Song et al. (2014). An outpatient antibacterial.	Statistical analysis comparing before-after data	4	3	Leadership management, governance	Use
Grey literature					
Spisak & Morgan. (2014). Use of incentives.	Program evaluation	4	2	Management, governance	Distribution Management support
Advance Family Planning and Women's Development Fund. (2015). Advocacy in Zanzibar.	Case study of program intervention.	1	3	Leadership, management, governance	Procurement, distribution
Kaplan et al. (2012). Policies to promote use of generic medicines.	Systematic literature review	Systematic review	2	Governance	Procurement; use; policy, law, and regulation
Vian et al. (2016). MeTA pathways to transparency and accountability	Series of cross-sectional country case studies	2	3	Governance	Selection, procurement, distribution, use
Moucheraurd et al. (2015). Evaluating the quality and use of economic data.	Cross-sectional study using applications for WHO Model EML inclusion	2	3	Governance	Selection

Author, Year, Abbreviated Title	Type of Study or Document	Level of Evidence	Level of Relevancy	L+M+G Construct	Pharmaceutical System Construct
Kohler et al. (2011). The World Medicines Situation.	Mixed methods, cross-sectional study.	2	3	Governance	Selection, procurement, distribution, use; policies, laws, regulation
SIAPS Program. (2014). Antimicrobial stewardship.	Evaluation of program intervention using pre- and post-data.	3	3	Leadership, management, governance	Use
SIAPS Program. (2017). Strengthening Regulatory Systems in DRC.	Evaluation of program intervention using pre- and post-data	3	3	Leadership, management, governance	Policies, laws, regulation
SIAPS Program. (2017). Technical Highlight. Strengthening the Medicines Regulatory System in Swaziland.	Program case study	1	3	Governance	Policies, laws, regulation
WHO. (2014). Medicines in Health Systems. Advancing access.	Case study on Accredited Drug-Dispensing Outlets programme	1	3	Governance	All
Lee et al. (2015). Analysis of the Regulatory Capacity.	Programmatic technical report	2	2	Governance	Policies, laws, regulation
Mabirizi et al. (2014). Pharmaceutical Systems Strengthening Interventions.	Programmatic technical report	2	3	Leadership, management, governance	Selection, procurement, distribution, use
SIAPS Program. (2016). Strengthening the Leadership and Management in South Africa.	Programmatic technical brief	3	3	Leadership, management	Selection, procurement, distribution, use
SIAPS Program. (2017). Transforming Pharmaceutical Services in Ethiopia.	Programmatic technical brief	3	3	Management, governance	Selection, procurement, distribution, use Management support

In their 2014 paper, Lima Dellamora et al. describe the role that management and governance practices—especially those related to cultivating accountability through structures that clearly delineate authority—play in the medicine selection process in Brazil. They report that drug and therapeutic committees (DTCs) play a principal role in the selection of medicines and should be structured to support sound and transparent decision-making processes. In Brazil, only a handful of hospitals have a DCT, since it is not legally mandated. The authors' assessment of a DTC at a flagship teaching hospital reveals that it generally functions in line with WHO best practices, including clear delineation of roles and responsibilities and regularly-updated regulations. Teaching hospitals are often a target for pharmaceutical companies in Brazil, and may select medicines that are perceived as cutting edge based on the information provided. In the hospital studied, however, all DTC members were required to declare any connection with the pharmaceutical industry in writing and members involved in promoting or marketing medicines are not allowed to serve on the DTC. This is an important step to protect the selection process from conflicts of interest and undue influence from the pharmaceutical industry. To promote transparency, the DTC posts assessments and decisions made on the hospital website. (Lima-Dellamora et al., 2014)

Conversely, an examination of the process used to select a new first-line antimalarial drug in Tanzania did not reveal use of strong governance practices. The committee charged with the selection was criticized for not having written procedures on member selection, and as such, the committee which was predominantly comprised of medical doctors, lacked widespread professional, institutional, and countrywide representation. Additionally, there was a lack of transparency regarding how decisions were made and who was consulted. There was no appeals process and no enforcement policy. Understanding the effect of the priority setting process was outside of the scope of the study but authors noted concerns that the closed process may allow the pharmaceutical industry to inappropriately influence the committee's decision. (Mori & Kaale, 2012).

Moucheraurd et al.'s review of applications submitted to the WHO Expert Committee on the Selection and Use of Essential Medicines, revealed minimal or incomplete submission of economic data to inform decision-making processes. The study reports that of the 134 applications received; only 6 percent included complete price and economic evaluation data. Despite the lack of these data, all applications were accepted for review by the expert committee. (Moucheraud, Wirtz, & Reich, 2015)

An analysis of transparency assessments conducted in 25 countries between 2004-2011 by the WHO's Good Governance for Medicines (GGM) program found that "There is a widespread lack of formalized selection criteria for membership of national drug selection committees (in 18 out of 25 countries) and at least 19 countries acknowledged that their drug registration committees did not have proper (i.e., documented) operating policies and procedures." Furthermore, in countries where this type of information did

exist, it was not always publicly available and conflict of interest policies were either absent or poorly implemented. (Kohler & Baghdadi-Sabeti, 2011)

Procurement

The system that supports pharmaceutical procurement plays a major role in determining the availability of medicines and their total costs. Pharmaceutical purchases comprise the second largest health expenditure after the cost of personnel; ensuring that the pharmaceutical procurement system functions effectively and efficiently is therefore essential to the financial strength of a health system and requires the application of robust L+M+G practices. Effective financial and logistics management systems must be established to ensure timely and reliable payment and accurate forecasting and quantification. Transparency, written procedures, and separation of functions are essential aspects of fair and competitive procurement process, which are necessary to attract the best suppliers and prices and protect against the influence of special interests. (MSH, 2012, Strengthening Pharmaceutical Systems, 2011)

A case study authored by the African Women Leaders Network for Reproductive Health and Family Planning (AWLN) describes an intervention to improve reproductive health commodity access in Zanzibar that involved the establishment of multi-stakeholder forum, a situational analysis, and the development of an evidence-based advocacy plan.

Advocacy efforts inspired the government to assess other facilities, train staff to address incorrect and incomplete reporting at the facility level, which had been identified as a bottleneck. The case study illustrates how collaborative stakeholder engagement and government ownership, coupled with leadership practices of scanning, focusing, and mobilizing, can result in improved procurement and distribution.

The AWLN situational analysis resulted in the development of a computerized reporting system. As a result, forecasting errors were reduced by 70 percent and stock availability improved at the facility level. A key limitation of the case study is that the data is mostly anecdotal with some qualitative findings from interviews. (Advance Family Planning and African Women's Development Fund, 2015)

Distribution

An effective distribution system sustains a steady supply of medicines and commodities to facilities where they are needed while ensuring that resources are used effectively and efficiently. A well-managed distribution system ensures that medicines are in good condition throughout the distribution process, minimizes loss due to spoilage or expiration, maintains accurate inventory records, provides information for forecasting, and limits theft and fraud. Without strong L+M+G, stock-outs of medicines and

"**R**obust monitoring and evaluation coupled with strong resource stewardship and accountability mechanisms can improve the functioning of the pharmaceutical distribution system."

supplies and over-expenditure can result.   MSH, 2012, Strengthening Pharmaceutical Systems, 2011)

Robust monitoring and evaluation coupled with strong resource stewardship and accountability mechanisms can improve the functioning of the pharmaceutical distribution system.

more than 95 percent and decreased wastage from 8 percent to less than 2 percent in most facilities. The APTS program includes a suite of customizable interventions, including the development of legislation to support the APTS program, delineating roles and responsibilities, establishing systems and tools for tracking and auditing medicines and financial transactions, and continuous monitoring of program performance.

One of Auditable Pharmaceutical Transactions and Services (APTS') strengths was its comprehensive approach to improve transparency and institutional and individual accountability; however, because APTS is a package of interventions that has been implemented variously, it is challenging to understand the impact of specific L+M+G components of the APTS program. (Systems for Improved Pharmaceuticals and Services (SIAPS) Program, 2017c)

Stakeholder agreement on design of the program, selection of achievable, well-defined indicators, and rigorous enforcement of incentive requirements were key to the success of a results-based financing program that worked to improve the distribution system in Mozambique. After the initiation of the program, the number of days from receipt of orders to the completion of the distribution plan decreased and inventory accuracy improved from 71 percent in 2012 to 78 percent in 2013. These improvements were the result of several leadership and management practices, including aligning, inspiring, planning, and monitoring and evaluating. The program utilized the core governance practices of cultivating accountability, engaging stakeholders, and stewarding resources to drive success. (Spisak & Morgan, 2014)

Conversely, poor governance practices can inhibit distribution system function and result in stock-outs of medicines and commodities. Mkoka et al. describe how the unreliability of obtaining medicines and commodities impedes the quality and timeliness of emergency obstetric care (EmOC) in rural Tanzania. The authors identify ways in which inadequate governance negatively influences health outcomes and describe how inadequate funding and lack of transparency around how community health funds are disbursed and used contributed to delays and shortages of EmOC medicines and commodities. Notably, the authors describe the approval process that requires five signatories before access to the fund is granted, which prevents the scheme from being used in emergency situations, contributes to stock-outs of medicines at the facilities, and reduces the community's trust in and

contributions to the fund. The authors highlight the importance of raising, deploying, and stewarding resources, as under-budgeting contributed to initial stock outs and the lack of transparency around fund use contributed to distrust within the community. (Mkoka et al., 2014)

Use

According to the WHO, rational use of medicines requires that "patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community."(WHO, 2002) Prescribing must be based on sound medical considerations, consider the safety, efficacy, and cost, of the medication, and ensure that the dose and duration are appropriate. Next the medication must be correctly dispensed together and the patient provides with information and support to help them adhere to the treatment (MSH, 2012). L+M+G practices support appropriate use by establishing and enforcing medicine use policies and appropriate practices for prescribing, sale, and supply of medicines while controlling pharmaceutical promotion activities and preventing inappropriate charges such as informal payments. (Strengthening Pharmaceutical Systems, 2011).

Three studies indicate that antimicrobial stewardship programs that include L+M+G components can improve prescriber behavior and reduce inappropriate prescribing of antibiotics (Liang, Xia, Zhang, & Jin, 2014; Song, Li, & Zhou, 2014; Zou et al., 2014). Zou et al. reports that the national antimicrobial stewardship program studied linked core measures of stewardship to evaluation of hospitals' quality management; another component included the formation of hospital departments with a clear stewardship role. These aspects illustrate how structures and systems can be aligned to support broader program objectives.

Similarly, Liang et al. describe a shift from an affiliate model to an independent model for management of community health centers to more effectively address issues regarding finance, personnel, and employee compensation (Liang et al., 2014). This change meant that staff income was no longer dictated by the volume and cost of prescriptions and examinations, which in theory would decrease providers' incentive to prescribe antibiotics without due cause.

Song et al. describe a complex set of interventions that included a motivational component where clinical department directors signed a goal-setting responsibility plan for antibacterial use. Another aspect of the program facilitated reporting of prescription-related near misses and retrospective evaluations of antibacterial-containing prescriptions through a voluntary online system. Clinical pharmacists reviewed the information monthly and discussed and released the results publicly. (Song et al., 2014)

"L+M+G practices were used to improve rational use of medicines; however, the study designs did not allow for isolation of each component of the intervention and thus it is impossible to determine the effect of the L+M+G practice."

In all three cases, L+M+G practices were used to improve rational use of medicines; however, the study designs did not allow for isolation of each component of the intervention and thus it is impossible to determine the effect of the L+M+G practice.

The SIAPS program describes the establishment and implementation of an antimicrobial stewardship program in Jordan that aimed to improve antibiotic prophylaxis practices for cesarean sections in hospital settings. Hospitals reported a reduction in inappropriate antimicrobial use by as much as 36 percent in some hospitals, a 79 percent per-case decrease in cost for antibiotic prophylaxis, and an increase from 0 to 86 percent in correct antibiotic prescriptions.

While the study design does not allow for attribution of results to individual components of the intervention, core elements of the program included: participation of a wide range of stakeholders from each hospital and administrative bodies, coordination of efforts between health providers, departments, and units; protocols and procedures that delineated roles and responsibilities; engagement of medicines and therapeutics committees and infection control committees; and alignment with a hospital accreditation process. (SIAPS, 2014)

Management support

The functions of the pharmaceutical system—selection, distribution, procurement, and use—do not operate in isolation and are supported by a core set of management systems: organization, financing and sustainability, information management, and human resource management. Without a functioning organizational structure, sufficient funding, a dependable information system, and a cadre of motivated pharmaceutical professionals, patient care will suffer. L+M+G practices can help improve the overall efficiency of these support systems. (MSH, 2012)

In Mozambique the application of results-based financing coupled with improvements in collaboration among stakeholders increased accountability among staff, and robust monitoring and evaluation improved the efficiency of the distribution system. (Spisak & Morgan, 2014) While in Tanzania, a lack of accountability and transparency inhibited the functioning of the community-based medicines fund (Mkoka et al., 2014).

Several papers discuss human resources and information systems within the context of management and described how planning and organizing processes were used to allocate human resources. For example, SIAPS described how the APTS program worked with facilities and government bodies in Ethiopia to determine, recruit, and deploy the appropriate number and mix of pharmacy staff. Using facility data on average workload, the skills

needed by all personnel, and areas of engagement (e.g., supply chain, clinical pharmacy, dispensing), informed workforce deployment. (SIAPS, 2017c)

The interactions between L+M+G and the other health system building blocks are complex, as illustrated by the management support required for the pharmaceutical system. The right staff, reliable information systems, adequate financing, and clear organization of support systems and structure are all interrelated and critical for pharmaceutical system performance.

Policies, Laws and Regulation

Policies, laws, and regulations lay the foundation on which the pharmaceutical system functions and play a critical role in promoting efficiency, effectiveness, and patient safety. At a macro-level, a national medicine policy is a "political commitment and a guide for action that shows how the government will ensure that efficacious and safe medicines of good quality are affordable, accessible, and rationally used" (MSH, 2012). Effective regulatory systems play a critical role in ensuring that medicines are safe and effective and that all pharmaceuticals sold within their borders are registered and meet acceptable quality standards. Distributors, wholesalers, and retailers must be licensed, regulated and inspected by appropriate national regulatory authorities for compliance with good storage and distribution practices (WHO, n.d.). Additionally, regulatory policies, procedures, and sanctions should be made public and applied consistently to distributors (WHO, n.d.).

Pharmaceutical policies and regulations—supported by strong stakeholder engagement, accountability, and resource stewardship—play a pivotal role in promoting the use of generics, which can provide significant costs savings (Kaplan, Ritz, Vitello, & Wirtz, 2012; MSH, 2012). In their systematic review of the literature, Kaplan et al. describe two governance-related conditions that are necessary to overcome barriers to uptake of generics. The authors posit that if stakeholders in LMICs feel confident that marked generics are of high quality, they may choose generics over higher-priced brand name options. In addition, the authors report that alignment of incentives among prescribers, dispensers, and consumers can support the acceptance of generic medicines. Political will, creating a shared vision, cultivating accountability, and stewarding resources are also necessary to facilitate the change. (Kaplan et al., 2012)

Most LMICs' pharmaceutical regulatory systems are nascent. Kohler and Baghdadi-Sabeti's analysis of GGM transparency assessments reports that inspection of pharmaceutical manufacturers and distributors was identified as prone to corruption. Among the 21 countries in which the inspection system has been assessed, 14 percent were found to be "very" vulnerable to corruption and of the remaining of 18 countries, 56 percent were found "moderately" vulnerable to corruption (Kohler & Baghdadi-Sabeti, 2011).

> "Policies, laws, and regulations lay the foundation on which the pharmaceutical system functions and play a critical role in promoting efficiency, effectiveness, and patient safety.

Experiences in two low-income countries, the Democratic Republic of the Congo (DRC) and Swaziland, illustrate how strong governance practices can improve the regulatory system.

The DRC has strengthened its national Drug Regulatory Authority by establishing a National Medicines Registration Committee, developing standard operating procedures for product registration, and creating a directory of approved medicines. As a result, the number of registered medicines in the country increased from 400 in 2011 to 4,606 in 2016 (SIAPS, 2017a).

Nascent regulatory strengthening efforts are underway in Swaziland. In 2015, the government passed policies and legislation to establish the country's first ever medicines regulatory authority and has since developed draft regulations (SIAPS, 2017b). In both countries, setting a strategic direction and aligning stakeholders was critical to establishing a foundation for medicines regulation. Moving forward, delineating clear roles and responsibilities within the authorities will help to promote efficient and transparent operations.

What are the Gaps?

The review of the literature revealed very few articles that presented findings directly relevant to L+M+G and pharmaceutical systems. The sample of accepted peer reviewed articles were heavily focused on selection and use with minimal discussion of procurement, distribution, or management support systems. Among those that were accepted, few employed a study design that allowed for attribution of results to the L+M+G intervention or intervention components. Broadly, the articles fell into two different types: 1) qualitative, cross sectional studies that applied a theoretical framework to understand the status quo, and 2) studies that employed regression analysis to examine the impact of broader antimicrobial stewardship programs. These study designs make it impossible to determine the effect of the L+M+G intervention on the four pharmaceutical system functions.

While the grey literature helped fill some gaps, lack of rigorous study design in these papers also made it a challenge to determine if, and to what degree, specific L+M+G interventions affected pharmaceutical system outcomes. Many of the documents were either cross-sectional in nature or they had pre- and post-intervention measures.

The lack of consensus and specificity in the literature on the definitions of L+M+G was a major challenge in this review. While L+M+G are separate concepts, their interconnected nature makes it challenging to isolate one from the other. Management was particularly problematic in this chapter because the word appears in many common pharmaceutical system terms. For example, "pharmaceutical management" refers to activities across the selection, procurement, distribution, and use functions. As such, we had often had to exclude management from the search terms, which may have impacted the results and skewed the article sample to under-represent management-related articles. The majority of the peer reviewed articles focus on governance practices.

> **F**ew employed a study design that allowed for attribution of results to the L+M+G intervention or intervention components.

Way Forward

Both the peer-reviewed and grey literature point to the fact that L+M+G can affect change but research and evidence on the topic is limited and the way that change is effected is unclear.

Given that L+M+G can potentially safeguard limited health care resources and improve the efficiency and effectiveness of the health system and its pharmaceutical sub-system, more robust research is needed in this area.

Each of the following has a role in moving the research agenda forward:

Donors and funders. Donors and funders play a critical role in determining the types of research conducted. Organizations and governments are often resource constrained and prioritize implementation over research. Donors will need to explicitly fund research and evaluation efforts.

Policymakers. Local governments will need to engage in research efforts to ensure that studies generate the information they need to support day-to-day decisions. Evidence without stakeholder buy-in will result in wasted funds and minimal improvements in informed, evidence-based decision making.

Implementers and researchers. Often constrained by financial resources and challenging contexts, implementers in LMICs must prioritize more robust monitoring and evaluation to learn from the implementation process. Additionally, implementers and researchers can partner to develop rigorous and robust study designs that complement implementation.

Overall, the results presented in this chapter illustrate the potential that L+M+G have to affect positive change in the pharmaceutical system and the health system more broadly. However, there is still significant work to be done to create a more comprehensive understanding of how L+M+G improve health system performance.

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Appendix 1: LMG Evidence Compendium – Working Definitions

GOVERNANCE

Definition:

Governance is the process of decision making and the process of which decisions are implemented (or not implemented)

(SIAPS, adapted from UNESCAP, 2009)

Practices:

Steering an organization in a shared direction by:
- Setting a shared strategic direction and objectives
- Making policies, laws, rules, regulations, or decisions
- Cultivating accountability
- Engaging stakeholders
- Raising, deploying, and stewarding resources to accomplish strategic goals and objectives
- Overseeing and making sure that the strategic goals and objectives are accomplished

(Adapted from LMG/SIAPS and UNESCAP, 2009)

Dimensions:

- Control of corruption
- Democracy
- Human rights
- Ethics and integrity
- Conflict prevention
- Public good
- Rule of law
- Accountability
- Partnerships
- Formulating policy/strategic direction
- Generating information/intelligence
- Organizational adequacy/system design
- Participation and consensus
- Regulation
- Transparency
- Effectiveness
- Efficiency
- Equity
- Quality
- Responsiveness
- Sustainability
- Financial and social risk protection

(Barbazza & Tello, 2014)

LEADERSHIP

Definition:

Mobilizing others to envision and realize a better future

Practices:

Scanning
- Identify client and stakeholder needs and priorities
- Recognize trends, opportunities, and risks that affect the organization
- Look for best practices
- Identify staff capacities and constraints
- Know yourself, your staff, and your organization—values, strengths, and weaknesses

Focusing
- Articulate the organization's mission and strategy
- Identify critical challenges
- Link goals with the overall organizational strategy
- Determine key priorities for action
- Create a common picture of desired results

Aligning/mobilizing
- Ensure congruence of values, mission, strategy, structure, systems, and daily actions
- Facilitate teamwork
- Unite key stakeholders around an inspiring vision
- Link goals with rewards and recognition
- Enlist stakeholders to commit resources

Inspiring
- Match deeds to words
- Demonstrate honesty in interactions
- Show trust and confidence in staff, acknowledge the contributions of others
- Provide staff with challenges, feedback, and support
- Be a model of creativity, innovation, and learning

(Adapted from LMG-LDP+)

MANAGEMENT

Definition:

Planning and using resources efficiently to produce intended results (LMG)

Pharmaceutical management refers to the set of functions and activities that are carried out in any health system to ensure access to and appropriate use of safe, effective, and quality pharmaceuticals. (SIAPS)

Practices:

Planning
- Set short-term organizational goals and performance objectives
- Develop multi-year and annual plans
- Allocate adequate resources (money, people, and materials)
- Anticipate and reduce risks

Organizing
- Develop a structure that provides accountability and delineates authority
- Ensure that systems for human resource management, finance, logistics, quality assurance, operations, information, and marketing effectively support the plan
- Strengthen work processes to implement the plan
- Align staff capacities with planned activities

Implementing
- Integrate systems and coordinate work flow
- Balance competing demands
- Routinely use data for decision-making
- Coordinate activities with other programs and sectors
- Adjust plans and resources as circumstances change

Monitoring and Evaluation
- Monitor and reflect on progress against plans
- Provide feedback
- Identify needed changes
- Improve work processes, procedures, and tools

(Adapted from LMG-LDP+)

HEALTH SYSTEM BUILDING BLOCKS

HUMAN RESOURCES FOR HEALTH
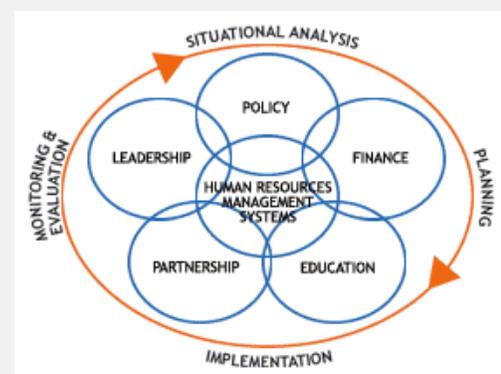
Definition:

The management, administrative, and clinical staff that perform all functions within a health system, from service delivery to clinic management and government policy and planning. (WHO, 2007)

Functions:

1. **Health workforce planning and policy**
   - Coordinating health workforce development efforts
   - Planning health workforce development (realistic and needs-based)
   - Allocating authority and responsibilities for health workforce development

2. **Financing HRH**
   - Allocating financing to develop and sustain an effective health workforce

3. **Managing workforce entry**
   - Pre-service education, clinical, technical, and management skills
   - Training clinical health workers through curriculum with an orientation toward primary health care, community health needs, and inter-professional training
   - Managing the quality of pre-service training programs
   - Hiring clinical, management, and support staff

4. **Managing workforce performance: supervision, support, accreditation**
   - Supporting, supervising, and monitoring performance of the health workforce

5. **Managing workforce performance: compensation**
   - Paying the health workforce

6. **Managing workforce performance: lifelong learning and professional development**
   - Providing ongoing professional development/continuing education to the health workforce

7. **Managing workforce retention and attrition**
   - Mitigating premature attrition
   - Mitigating absenteeism
   - Providing social protection to the health workforce
   - Encouraging health workers to work within their communities
   - Ensuring workforce satisfaction and motivation

(Health System Rapid Diagnostic Tool: Framework, Operational Guide, and Metrics to Measure the Strength of Priority Health System Functions, Wendt, 2012, FHI360)

Figure 1: Human Resources for Health Framework

http://www.capacityproject.org/framework/

HEALTH FINANCING

Definition:

The system of fund generation or credit, fund expenditures, and flow of funds used to support the health service delivery system. Finances may come from foreign or domestic sources and may be private or public in origin.

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. It provides incentives for providers and users to be efficient. (WHO, 2007)

Functions:

1. **Collecting revenues**
   - Coordinating responsibilities and authority for financing among actors (different levels of government, development partners, and citizens)
   - Collecting/disbursing funds
   - Ensuring direct payments for health products and services are well managed

2. **Pooling risks**
   - Establishing and managing risk-pooling mechanisms (particularly targeting the poor, marginalized, and other vulnerable populations)

3. **Allocating resources**
   - Budgeting (as a tool for annual panning and management)
   - Using evidence on population health needs to inform resource allocation decisions
   - Using cost-effectiveness analysis to inform resource allocation decisions

4. **Making payments for health services and health system costs**
   - Procuring /contracting for health service delivery and other health system functions
   - Managing financing flows from source to intended end user

5. **Accounting and financial management**
   - Tracking revenue and expenditure
   - Proving oversight for public finances at all levels
   - Verifying accuracy of financial records

(Health System Rapid Diagnostic Tool: Framework, Operational Guide, and Metrics to Measure the Strength of Priority Health System Functions, Wendt, 2012, FHI360)

HEALTH INFORMATION SYSTEMS

Definition:

Includes four key functions—data generation, compilation, analysis and synthesis, and communication and use—that provide the underpinning for decision making. The health information system collects data from the health sector and other relevant sectors, analyses the data and ensures their overall quality, relevance and timeliness, and converts data into information for health-related decision-making.

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 system performance, and health status (WHO, 2007).

Functions:

1. **Defining information needs and objectives**
   - Defining core indicators and data requirements
   - Developing coordinated HMIS policies, plans, and strategies

2. **Collecting timely, complete, and accurate data**
   - Collecting census data
   - Collecting civil registration data
   - Collecting population-based survey data
   - Collecting data to monitor notifiable diseases (individual records)
   - Collecting service record data
   - Collecting health facility infrastructure, equipment, and supplies data
   - Collecting human resource data
   - Collecting financial data

3. **Managing data**
   - Coordinating and integrating data across different information sub-systems

4. **Data quality assurance**
   - Conducting systematic data quality audits

5. **System quality improvement**
   - Continuously improving information systems (e.g., identifying and reducing unnecessary reporting burdens, simplifying processes, and/or utilizing information and communication technology to strengthen processes)

6. **Analysis: Transforming data into information**
   - Analyzing and synthesizing data to produce useful information about populations' health status and needs and health system performance

7. **Disseminating information**
   - Disseminating health information to policy makers, managers, providers, and other stakeholders at all levels and across agencies/departments

(Health System Rapid Diagnostic Tool: Framework, Operational Guide, and Metrics to Measure the Strength of Priority Health System Functions, Wendt, 2012, FHI360)

MEDICAL PRODUCTS, VACCINES AND TECHNOLOGIES

Definition:

All structures, people, resources, processes, and their interactions within the broader health system that aim to ensure equitable and timely access to safe, effective, quality pharmaceutical products and services that promote their appropriate and cost-effective use to improve health outcomes. (SIAPS)

Pharmaceutical systems strengthening is the process of identifying and implementing strategies and actions that achieve coordinated and sustainable improvements in the critical components of a pharmaceutical system to enhance responsive and resilient system performance for achieving better health outcomes. The critical components of a pharmaceutical system are its core functions, structures, the supporting health system resources, and an enabling policy, legal, and governance framework. (SIAPS)

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. (WHO, 2007)

Functions:

1. Product selection
- Developing and updating a formal list of essential medicine consistent with population health priorities
- Selecting products in line with national essential medicine lists

2. Forecasting and procurement
- Planning coordinated product procurement (pooled procurement, coordinated shipping cycles, etc.)
- Accurately forecasting drug needs/ consumption
- Procuring products efficiently and effectively (i.e., getting the best drugs for the best price)

3. Inventory storage and distribution
- Storing and distributing stocks
- Eliminating waste of essential medical products (either due to expiration, damage, or corruption)

4. Serving customers
- Establishing and maintaining service delivery points to dispense essential medicines and commodities
- Following clinical guidelines for dispensing essential medicines

5. Quality and safety monitoring
- Regulating procured products to ensure efficacy and safety
- Monitoring the quality of medical products (potency, proper labeling, expiration, damage, or tampering)
- Ensuring rational use practices are followed

6. The logistics management information system
- Providing logistics managers with accurate and timely essential data on, at a minimum, stock on hand, rate of consumption, and losses and adjustments

(Health System Rapid Diagnostic Tool: Framework, Operational Guide, and Metrics to Measure the Strength of Priority Health System Functions, Wendt, 2012, FHI360)

SERVICE DELIVERY

Definition:

The delivery of health services to those who need them, where and when they need them.

Functions:

1. Planning the delivery of services
- Annually reviewing and planning service delivery
- Using evidence (information on population health needs, past performance, and costs) for routine service planning and decision making
- Engaging patients and target populations in routine planning and decision-making processes
- Setting clear and realistic service delivery targets

2. Managing a continuum of care (integrated services, referrals, patient-centered services)
- Providing essential services
- Making services patient centered
- Establishing and maintaining a referral system
- Engaging communities and civil society in providing services

3. Managing service quality
- Monitoring and assuring clinical quality and patient satisfaction
- Making quality improvements

4. Managing outreach services and access issues
- Making communities aware of services and encouraging use
- Identifying barriers to access, especially for poor and marginalized populations

5. Establishing collaboration between public and private sectors in service delivery
- Engaging civil society organizations to deliver health services
- Employing public-private partnerships to support and deliver services

(Health System Rapid Diagnostic Tool: Framework, Operational Guide, and Metrics to Measure the Strength of Priority Health System Functions, Wendt, 2012, FHI360)

Key Characteristics of Good Service Delivery

1. **Comprehensiveness**: A comprehensive range of health services is provided, appropriate to the needs of the target population, including preventative, curative, palliative, and rehabilitative services and health promotion activities.

2. **Accessibility:** Services are directly and permanently accessible with no undue barriers of cost, language, culture, or geography. Health services are close to the people, with a routine point of entry to the service network at the primary care level (not at the specialist or hospital level). Services may be provided in the home, the community, the workplace, or health facilities as appropriate.

3. **Coverage:** Service delivery is designed so that all people in a defined target population are covered, i.e., the sick and the healthy, all income groups, and all social groups.

4. **Continuity:** Service delivery is organized to provide an individual with continuity of care across the network of services, health conditions, levels of care, and over the life-cycle.

5. **Quality:** Health services are of high quality, i.e., they are effective, safe, centered on the patient's needs, and given in a timely fashion.

6. **Person-centeredness:** Services are organized around the person, not the disease or the financing. Users perceive health services to be responsive and acceptable to them. There is participation from the target population in service delivery design and assessment. People are partners in their own health care.

7. **Coordination:** Local area health service networks are actively coordinated, across types of provider, types of care, levels of service delivery, and for both routine and emergency preparedness. The patient's primary care provider facilitates the route through the needed services and works in collaboration with other levels and types of provider. Coordination also takes place with other sectors (e.g., social services) and partners (e.g., community organizations).

8. **Accountability and efficiency:** Health services are managed to achieve the core elements described above with a minimum wastage of resources. Managers are allocated the necessary authority to achieve planned objectives and held accountable for overall performance and results. Assessment includes appropriate mechanisms for the participation of the target population and civil society.
(WHO, 2010)

Appendix 2: LMG Compendium Search Terms

L+M+G		Locations	Building Blocks
Protocol 1			
((MM "Leadership") OR (MM "Motivation") OR (MM "Organizational Culture") OR (MM "Emotional Intelligence") OR (AB (teamwork OR "work climate" OR "institutional development" OR "organizational development" OR "capacity building" OR curriculum)) OR (MH "Health Services Administration") OR (MH "Health Facility Administrators") OR (MH "Institutional Management Teams") OR (MH "Health Information Systems") OR (MH "Program Evaluation") OR (MH "Health Care Evaluation Mechanisms") OR (MH "Financial Management") OR (MH "Health Planning Technical Assistance") OR (MH "Health Planning") OR (MH "Resource Allocation+") OR (MH "Policy Making+") OR (MH "Decision Making, Organizational") OR (MH "Fraud+") OR (MH "Governing Board+") OR (MH "Professional Autonomy"))	AND	(MH "afghanistan") OR (MH "bangladesh") OR (MH "benin") OR (MH "burkina faso") OR (MH "burundi") OR (MH "cambodia") OR (MH "central african republic") OR (MH "chad") OR (MH "comoros") OR (MH "democratic republic of the congo") OR (MH "eritrea") OR (MH "ethiopia") OR (MH "gambia") OR (MH "guinea") OR (MH "guinea bissau") OR (MH "haiti") OR (MH "kenya") OR (MH "democratic people's republic of korea") OR (MH "liberia") OR (MH "madagascar") OR (MH "malawi") OR (MH "mali") OR (MH "mozambique") OR (MH "myanmar") OR (MH "nepal") OR (MH "niger") OR (MH "rwanda") OR (MH "sierra leone") OR (MH "somalia") OR (MH "tajikistan") OR (MH "tanzania") OR (MH "togo") OR (MH "uganda") OR (MH "armenia") OR (MH "bhutan") OR (MH "bolivia") OR (MH "cameroon") OR (MH "cape verde") OR (MH "congo") OR (MH "cote d'ivoire") OR (MH "djibouti") OR (MH "egypt") OR (MH "el salvador") OR (MH "georgia republic") OR (MH "ghana") OR (MH "guatemala") OR (MH "guyana") OR (MH "honduras") OR (MH "indonesia") OR (MH "india") OR (MH "micronesia") OR (MH "kosovo") OR (MH "kyrgyzstan") OR (MH "laos") OR (MH "lesotho") OR (MH "mauritania") OR (MH "moldova") OR (MH "mongolia") OR (MH "morocco") OR (MH "nicaragua") OR (MH "nigeria") OR (MH "pakistan") OR (MH "papua new guinea") OR (MH "paraguay") OR (MH "philippines") OR (MH "samoa") OR (MH "Sao Tome and Principe" OR (MH "senegal") OR (MH "melanesia") OR (MH "south sudan" OR (MH "swaziland") OR (MH "syria") OR (MH "east timor") OR (MH "ukraine") OR (MH "uzbekistan") OR (MH "vanuatu") OR (MH "vietnam") OR (MH "gaza" OR (MH "yemen") OR (MH "zambia") OR (MH "angola") OR (MH "albania") OR (MH "algeria") OR (MH "american samoa") OR (MH "argentina") OR (MH "azerbaijan") OR (MH "republic of belarus") OR (MH "belize") OR (MH "bosnia herzegovina") OR (MH "botswana") OR (MH "brazil") OR (MH "bulgaria") OR (MH "china") OR (MH "colombia") OR (MH "costa rica") OR (MH "cuba") OR (MH "dominica") OR (MH "dominican republic") OR (MH "ecuador") OR (MH "fiji") OR (MH "gabon") OR (MH "grenada") OR (MH "hungary") OR (MH "iran") OR (MH "iraq") OR (MH "jamaica") OR (MH "jordan") OR (MH "kazakhstan") OR (MH "lebanon") OR (MH "libya") OR (MH "macedonia republic") OR (MH "malaysia") OR (MH "indian ocean islands") OR (MH "micronesia") OR (MH "mauritius") OR (MH "mexico") OR (MH "montenegro") OR (MH "namibia") OR (MH "panama") OR (MH "peru") OR (MH "romania") OR (MH "serbia") OR (MH "south africa") OR (MH "saint lucia") OR (MH "saint vincent and the grenadines") OR (MH "suriname") OR (MH "thailand") OR (MH "tonga") OR (MH "tunisia") OR (MH "turkey") OR (MH "turkmenistan") OR (MH "venezuela")	N/A

L+M+G		Locations	Building Blocks
Protocol 2			
((MM "Leadership") OR (MM "Motivation") OR (MM "Organizational Culture") OR (MM "Emotional Intelligence") OR (AB (teamwork OR "work climate" OR "institutional development" OR "organizational development" OR "capacity building" OR curriculum)) OR (MH "Health Services Administration") OR (MH "Health Facility Administrators") OR (MH "Institutional Management Teams") OR (MH "Health Information Systems") OR (MH "Program Evaluation") OR (MH "Health Care Evaluation Mechanisms") OR (MH "Financial Management") OR (MH "Health Planning Technical Assistance") OR (MH "Health Planning") OR (MH "Resource Allocation+") OR (MH "Policy Making+") OR (MH "Decision Making, Organizational") OR (MH "Fraud+") OR (MH "Governing Board+") OR (MH "Professional Autonomy"))	AND	(MH "afghanistan") OR (MH "bangladesh") OR (MH "benin") OR (MH "burkina faso") OR (MH "burundi") OR (MH "cambodia") OR (MH "central african republic") OR (MH "chad") OR (MH "comoros") OR (MH "democratic republic of the congo") OR (MH "eritrea") OR (MH "ethiopia") OR (MH "gambia") OR (MH "guinea") OR (MH "guinea bissau") OR (MH "haiti") OR (MH "kenya") OR (MH "democratic people's republic of korea") OR (MH "liberia") OR (MH "madagascar") OR (MH "malawi") OR (MH "mali") OR (MH "mozambique") OR (MH "myanmar") OR (MH "nepal") OR (MH "niger") OR (MH "rwanda") OR (MH "sierra leone") OR (MH "somalia") OR (MH "tajikistan") OR (MH "tanzania") OR (MH "togo") OR (MH "uganda") OR (MH "armenia") OR (MH "bhutan") OR (MH "bolivia") OR (MH "cameroon") OR (MH "cape verde") OR (MH "congo") OR (MH "cote d'ivoire") OR (MH "djibouti") OR (MH "egypt") OR (MH "el salvador") OR (MH "georgia republic") OR (MH "ghana") OR (MH "guatemala") OR (MH "guyana") OR (MH "honduras") OR (MH "indonesia") OR (MH "india") OR (MH "micronesia") OR (MH "kosovo") OR (MH "kyrgyzstan") OR (MH "laos") OR (MH "lesotho") OR (MH "mauritania") OR (MH "moldova") OR (MH "mongolia") OR (MH "morocco") OR (MH "nicaragua") OR (MH "nigeria") OR (MH "pakistan") OR (MH "papua new guinea") OR (MH "paraguay") OR (MH "philippines") OR (MH "samoa") OR (MH "Sao Tome and Principe" OR (MH "senegal") OR (MH "melanesia") OR (MH "south sudan" OR (MH "swaziland") OR (MH "syria") OR (MH "east timor") OR (MH "ukraine") OR (MH "uzbekistan") OR (MH "vanuatu") OR (MH "vietnam") OR (MH "gaza" OR (MH "yemen") OR (MH "zambia") OR (MH "angola") OR (MH "albania") OR (MH "algeria") OR (MH "american samoa") OR (MH "argentina") OR (MH "azerbaijan") OR (MH "republic of belarus") OR (MH "belize") OR (MH "bosnia herzegovina") OR (MH "botswana") OR (MH "brazil") OR (MH "bulgaria") OR (MH "china") OR (MH "colombia") OR (MH "costa rica") OR (MH "cuba") OR (MH "dominica") OR (MH "dominican republic") OR (MH "ecuador") OR (MH "fiji") OR (MH "gabon") OR (MH "grenada") OR (MH "hungary") OR (MH "iran") OR (MH "iraq") OR (MH "jamaica") OR (MH "jordan") OR (MH "kazakhstan") OR (MH "lebanon") OR (MH "libya") OR (MH "macedonia republic") OR (MH "malaysia") OR (MH "indian ocean islands") OR (MH "micronesia") OR (MH "mauritius") OR (MH "mexico") OR (MH "montenegro") OR (MH "namibia") OR (MH "panama") OR (MH "peru") OR (MH "romania") OR (MH "serbia") OR (MH "south africa") OR (MH "saint lucia") OR (MH "saint vincent and the grenadines") OR (MH "suriname") OR (MH "thailand") OR (MH "tonga") OR (MH "tunisia") OR (MH "turkey") OR (MH "turkmenistan") OR (MH "venezuela")	N/A

L+M+G		Locations		Building Blocks
Protocol 3				
(MM "Leadership") OR (MM "Motivation") OR (MM "Organizational Culture") OR (MM "Emotional Intelligence") OR (AB (teamwork OR "work climate" OR "institutional development" OR "organizational development" OR "capacity building" OR curriculum) OR (MH "Health Services Administration") OR (MH "Health Facility Administrators") OR (MH "Institutional Management Teams") OR (MH "Health Information Systems") OR (MH "Program Evaluation") OR (MH "Health Care Evaluation Mechanisms") OR (MH "Financial Management") OR (MH "Health Planning Technical Assistance") OR (MH "Health Planning") OR (AB "monitoring and evaluation" OR performance W0 objective* OR "annual plans" OR "annual plan" OR "annual planning" OR allocat* N0 resource* OR work W0 process* OR coordinat* workflow) OR (MH "Resource Allocation+") OR (MH "Policy Making+") OR (MH "Decision Making, Organizational") OR (MH "Fraud+") OR (MH "Governing Board+") OR (MH "Professional Autonomy") OR (AB "code of conduct" OR "codes of conduct" OR "feedback mechanisms" OR "shared action plan") OR (TI "accountability"))	AND	((MH "Africa+") OR (MH "Developing Countries") OR (MH "afghanistan") OR (MH "bangladesh") OR (MH "benin") OR (MH "burkina faso") OR (MH "burundi") OR (MH "cambodia") OR (MH "central african republic") OR (MH "chad") OR (MH "comoros") OR (MH "democratic republic of the congo") OR (MH "eritrea") OR (MH "ethiopia") OR (MH "gambia") OR (MH "guinea") OR (MH "guinea bissau") OR (MH "haiti") OR (MH "kenya") OR (MH "democratic people's republic of korea") OR (MH "liberia") OR (MH "madagascar") OR (MH "malawi") OR (MH "mali") OR (MH "mozambique") OR (MH "myanmar") OR (MH "nepal") OR (MH "niger") OR (MH "rwanda") OR (MH "sierra leone") OR (MH "somalia") OR (MH "tajikistan") OR (MH "tanzania") OR (MH "togo") OR (MH "uganda") OR (MH "armenia") OR (MH "bhutan") OR (MH "bolivia") OR (MH "cameroon") OR (MH "cape verde") OR (MH "congo") OR (MH "cote d'ivoire") OR (MH "djibouti") OR (MH "egypt") OR (MH "el salvador") OR (MH "georgia republic") OR (MH "ghana") OR (MH "guatemala") OR (MH "guyana") OR (MH "honduras") OR (MH "indonesia") OR (MH "india") OR (MH "micronesia") OR (MH "kosovo") OR (MH "kyrgyzstan") OR (MH "laos") OR (MH "lesotho") OR (MH "mauritania") OR (MH "moldova") OR (MH "mongolia") OR (MH "morocco") OR (MH "nicaragua") OR (MH "nigeria") OR (MH "pakistan") OR (MH "papua new guinea") OR (MH "paraguay") OR (MH "philippines") OR (MH "samoa") OR (MH "Sao Tome and Principe") OR (MH "senegal") OR (MH "melanesia") OR (MH "south sudan") OR (MH "swaziland") OR (MH "syria") OR (MH "east timor") OR (MH "ukraine") OR (MH "uzbekistan") OR (MH "vanuatu") OR (MH "vietnam") OR (MH "gaza" OR (MH "yemen") OR (MH "zambia") OR (MH "angola") OR (MH "albania") OR (MH "algeria") OR (MH "american samoa") OR (MH "argentina") OR (MH "azerbaijan") OR (MH "republic of belarus") OR (MH "belize") OR (MH "bosnia herzegovina") OR (MH "botswana") OR (MH "brazil") OR (MH "bulgaria") OR (MH "china") OR (MH "colombia") OR (MH "costa rica") OR (MH "cuba") OR (MH "dominica") OR (MH "dominican republic") OR (MH "ecuador") OR (MH "fiji") OR (MH "gabon") OR (MH "grenada") OR (MH "hungary") OR (MH "iran") OR (MH "iraq") OR (MH "jamaica") OR (MH "jordan") OR (MH "kazakhstan") OR (MH "lebanon") OR (MH "libya") OR (MH "macedonia republic") OR (MH "malaysia") OR (MH "indian ocean islands") OR (MH "micronesia") OR (MH "mauritius") OR (MH "mexico") OR (MH "montenegro") OR (MH "namibia") OR (MH "panama") OR (MH "peru") OR (MH "romania") OR (MH "serbia") OR (MH "south africa") OR (MH "saint lucia") OR (MH "saint vincent and the grenadines") OR (MH "suriname") OR (MH "thailand") OR (MH "tonga") OR (MH "tunisia") OR (MH "turkey") OR (MH "turkmenistan") OR (MH "venezuela"))	AND	((MH "Health Information Management+") OR (MH "Medical Informatics+") OR (MH "Management Information Systems+") OR (MH "Medical Records+") OR AB ("health information" OR "information systems" OR "information system" OR "data quality" OR "information quality") OR (MH "Personnel Management+") OR (MH "Health Personnel+") OR (MH "Health Manpower") OR (AB "human resources for health") OR (MH "Pharmaceutical Services+") OR (MH "Fees, Pharmaceutical+") OR (MH "Ethics, Pharmacy") OR (MH "Education, Pharmacy+") OR (MH "Pharmacy Administration+") OR (ab "rational use") OR (MM "Economics+") OR (MM "Health Expenditures+") OR (MM "Health Care Costs+") OR (AB fund* OR subsidies OR subsidiz* OR subsidis*) OR (MM "Delivery of Health Care") OR (MM "Delivery of Health Care, Integrated+") OR (MM "Health Services Accessibility+") OR (MM "Telemedicine+") OR (MM "Health Services Research+") OR (AB (decentrali* OR integration) AND health AND service*))

L+M+G		Locations		Building Blocks
Protocol 4				
((TI ((team AND build*) OR coach* OR "organizational culture" OR "institutional culture" OR "team culture" OR "work climate" OR "institutional development" OR "organizational development" OR leader* OR "priority setting" OR "goal setting" OR "key priorities" OR leader* OR (defin* AND (stakeholder* OR strateg*))) OR (MM "Leadership") OR (MM "Health Facility Administrators") OR (MM "Institutional Management Teams") OR (MM "Health Care Evaluation Mechanisms") OR (MM "Health Planning Technical Assistance") OR (TI (("monitoring and evaluation" OR "annual plans" OR "annual plan" OR "annual planning" OR work W0 process* OR "manager" OR "managers" OR (Manag* health (work* OR system OR organisation OR organization)))) OR (MM "Policy Making") OR (MH "Governing Board+") OR (MH "Professional Autonomy") OR (AB "feedback mechanisms" OR "shared action plan") OR (TI ("accountability" OR "governing" OR "governance" OR "code of conduct" OR "codes of conduct" OR "Resource Allocation" OR fraud OR corrupt*)))	AND	((MH "Africa+") OR (MH "Developing Countries") OR (MH "afghanistan") OR (MH "bangladesh") OR (MH "benin") OR (MH "burkina faso") OR (MH "burundi") OR (MH "cambodia") OR (MH "central african republic") OR (MH "chad") OR (MH "comoros") OR (MH "democratic republic of the congo") OR (MH "eritrea") OR (MH "ethiopia") OR (MH "gambia") OR (MH "guinea") OR (MH "guinea bissau") OR (MH "haiti") OR (MH "kenya") OR (MH "democratic people's republic of korea") OR (MH "liberia") OR (MH "madagascar") OR (MH "malawi") OR (MH "mali") OR (MH "mozambique") OR (MH "myanmar") OR (MH "nepal") OR (MH "niger") OR (MH "rwanda") OR (MH "sierra leone") OR (MH "somalia") OR (MH "tajikistan") OR (MH "tanzania") OR (MH "togo") OR (MH "uganda") OR (MH "armenia") OR (MH "bhutan") OR (MH "bolivia") OR (MH "cameroon") OR (MH "cape verde") OR (MH "congo") OR (MH "cote d'ivoire") OR (MH "djibouti") OR (MH "egypt") OR (MH "el salvador") OR (MH "georgia republic") OR (MH "ghana") OR (MH "guatemala") OR (MH "guyana") OR (MH "honduras") OR (MH "indonesia") OR (MH "india") OR (MH "micronesia") OR (MH "kosovo") OR (MH "kyrgyzstan") OR (MH "laos") OR (MH "lesotho") OR (MH "mauritania") OR (MH "moldova") OR (MH "mongolia") OR (MH "morocco") OR (MH "nicaragua") OR (MH "nigeria") OR (MH "pakistan") OR (MH "papua new guinea") OR (MH "paraguay") OR (MH "philippines") OR (MH "samoa") OR (MH "Sao Tome and Principe") OR (MH "senegal") OR (MH "melanesia") OR (MH "south sudan") OR (MH "swaziland") OR (MH "syria") OR (MH "east timor") OR (MH "ukraine") OR (MH "uzbekistan") OR (MH "vanuatu") OR (MH "vietnam") OR (MH "gaza" OR (MH "yemen") OR (MH "zambia") OR (MH "angola") OR (MH "albania") OR (MH "algeria") OR (MH "american samoa") OR (MH "argentina") OR (MH "azerbaijan") OR (MH "republic of belarus") OR (MH "belize") OR (MH "bosnia herzegovina") OR (MH "botswana") OR (MH "brazil") OR (MH "bulgaria") OR (MH "china") OR (MH "colombia") OR (MH "costa rica") OR (MH "cuba") OR (MH "dominica") OR (MH "dominican republic") OR (MH "ecuador") OR (MH "fiji") OR (MH "gabon") OR (MH "grenada") OR (MH "hungary") OR (MH "iran") OR (MH "iraq") OR (MH "jamaica") OR (MH "jordan") OR (MH "kazakhstan") OR (MH "lebanon") OR (MH "libya") OR (MH "macedonia republic") OR (MH "malaysia") OR (MH "indian ocean islands") OR (MH "micronesia") OR (MH "mauritius") OR (MH "mexico") OR (MH "montenegro") OR (MH "namibia") OR (MH "panama") OR (MH "peru") OR (MH "romania") OR (MH "serbia") OR (MH "south africa") OR (MH "saint lucia") OR (MH "saint vincent and the grenadines") OR (MH "suriname") OR (MH "thailand") OR (MH "tonga") OR (MH "tunisia") OR (MH "turkey") OR (MH "turkmenistan") OR (MH "venezuela"))	AND	((MH "Health Information Management+") OR (MH "Medical Informatics+") OR (MH "Management Information Systems+") OR (MH "Medical Records+") OR AB ("health information" OR "information systems" OR "information system" OR "data quality" OR "information quality") OR (MH "Personnel Management+") OR (MH "Health Personnel+") OR (MH "Health Manpower") OR (AB "human resources for health") OR (MH "Pharmaceutical Services+") OR (MH "Fees, Pharmaceutical+") OR (MH "Ethics, Pharmacy") OR (MH "Education, Pharmacy+") OR (MH "Pharmacy Administration+") OR (ab "rational use") OR (MM "Economics+") OR (MM "Health Expenditures+") OR (MM "Health Care Costs+") OR (AB fund* OR subsidies OR subsidiz* OR subsidis*) OR (MM "Delivery of Health Care") OR (MM "Delivery of Health Care, Integrated+") OR (MM "Health Services Accessibility+") OR (MM "Telemedicine+") OR (MM "Health Services Research+") OR (AB (decentrali* OR integration) AND health AND service*))

L+M+G		Locations		Building Blocks
Protocol 5				
(TI ((team AND build*) OR coach* OR "organizational culture" OR "institutional culture" OR "team culture" OR "work climate" OR "institutional development" OR "organizational development" OR leader* OR "priority setting" OR "goal setting" OR "key priorities" OR leader* OR (defin* AND (stakeholder* OR strateg*))) OR (MM "Leadership") OR (MH "Mentors") OR (MM "Cooperative Behavior")OR(MM "Health Facility Administrators") OR (MM "Institutional Management Teams") OR (MM "Health Care Evaluation Mechanisms") OR (MM "Health Planning Technical Assistance") OR (MH "Planning Techniques") OR (MH "Health Planning/MT") OR (MM "Program Evaluation+/MT") OR (TI (("monitoring and evaluation" OR "annual plans" OR "annual plan" OR "annual planning" OR work W0 process* OR "manager" OR "managers" OR (Manag* health (work* OR system OR organisation OR organization))))OR(MM "Policy Making") OR (MH "Governing Board+") OR (MH "Professional Autonomy") OR (MH "Health Equity/ST/ES") OR (AB "strategic vision" OR "feedback mechanisms" OR "shared action plan") OR (TI ("accountability" OR "governing" OR "governance" OR "code of conduct" OR "codes of conduct" OR "Resource Allocation" OR "stewardship" OR oversight OR OR transparency OR responsiveness OR fraud OR corrupt*) OR (TI (health Policy (formation OR creation OR development))))	AND	((MH "Africa+") OR (MH "Developing Countries") OR (MH "afghanistan") OR (MH "bangladesh") OR (MH "benin") OR (MH "burkina faso") OR (MH "burundi") OR (MH "cambodia") OR (MH "central african republic") OR (MH "chad") OR (MH "comoros") OR (MH "democratic republic of the congo") OR (MH "eritrea") OR (MH "ethiopia") OR (MH "gambia") OR (MH "guinea") OR (MH "guinea bissau") OR (MH "haiti") OR (MH "kenya") OR (MH "democratic people's republic of korea") OR (MH "liberia") OR (MH "madagascar") OR (MH "malawi") OR (MH "mali") OR (MH "mozambique") OR (MH "myanmar") OR (MH "nepal") OR (MH "niger") OR (MH "rwanda") OR (MH "sierra leone") OR (MH "somalia") OR (MH "tajikistan") OR (MH "tanzania") OR (MH "togo") OR (MH "uganda") OR (MH "armenia") OR (MH "bhutan") OR (MH "bolivia") OR (MH "cameroon") OR (MH "cape verde") OR (MH "congo") OR (MH "cote d'ivoire") OR (MH "djibouti") OR (MH "egypt") OR (MH "el salvador") OR (MH "georgia republic") OR (MH "ghana") OR (MH "guatemala") OR (MH "guyana") OR (MH "honduras") OR (MH "indonesia") OR (MH "india") OR (MH "micronesia") OR (MH "kosovo") OR (MH "kyrgyzstan") OR (MH "laos") OR (MH "lesotho") OR (MH "mauritania") OR (MH "moldova") OR (MH "mongolia") OR (MH "morocco") OR (MH "nicaragua") OR (MH "nigeria") OR (MH "pakistan") OR (MH "papua new guinea") OR (MH "paraguay") OR (MH "philippines") OR (MH "samoa") OR (MH "Sao Tome and Principe" OR (MH "senegal") OR (MH "melanesia") OR (MH "south sudan" OR (MH "swaziland") OR (MH "syria") OR (MH "east timor") OR (MH "ukraine") OR (MH "uzbekistan") OR (MH "vanuatu") OR (MH "vietnam") OR (MH "gaza" OR (MH "yemen") OR (MH "zambia") OR (MH "angola") OR (MH "albania") OR (MH "algeria") OR (MH "american samoa") OR (MH "argentina") OR (MH "azerbaijan") OR (MH "republic of belarus") OR (MH "belize") OR (MH "bosnia herzegovina") OR (MH "botswana") OR (MH "brazil") OR (MH "bulgaria") OR (MH "china") OR (MH "colombia") OR (MH "costa rica") OR (MH "cuba") OR (MH "dominica") OR (MH "dominican republic") OR (MH "ecuador") OR (MH "fiji") OR (MH "gabon") OR (MH "grenada") OR (MH "hungary") OR (MH "iran") OR (MH "iraq") OR (MH "jamaica") OR (MH "jordan") OR (MH "kazakhstan") OR (MH "lebanon") OR (MH "libya") OR (MH "macedonia republic") OR (MH "malaysia") OR (MH "indian ocean islands") OR (MH "micronesia") OR (MH "mauritius") OR (MH "mexico") OR (MH "montenegro") OR (MH "namibia") OR (MH "panama") OR (MH "peru") OR (MH "romania") OR (MH "serbia") OR (MH "south africa") OR (MH "saint lucia") OR (MH "saint vincent and the grenadines") OR (MH "suriname") OR (MH "thailand") OR (MH "tonga") OR (MH "tunisia") OR (MH "turkey") OR (MH "turkmenistan") OR (MH "venezuela"))	AND	(MH "Health Information Management+") OR (MH "Decision Support Systems, Clinical") OR (MH "Decision Support Systems, Management") OR (MH "Public Health Surveillance/MT") OR (MH "Medical Informatics+") OR (MH "Management Information Systems+") OR (MH "Medical Records+") OR AB ("health information" OR "information systems" OR "information system" OR "data quality" OR "information quality")OR(MH "Personnel Management+") OR (MH "Health Personnel+") OR (MH "Health Manpower") OR (AB "human resources for health") OR (MH "Public Health+/MA") OR (MH "Attitude of Health Personnel+") OR (MH "Physicians+/PX") OR (MH "Professional Competence+")OR(MH "Pharmaceutical Services+") OR (MH "Fees, Pharmaceutical+") OR (MH "Ethics, Pharmacy") OR (MH "Education, Pharmacy+") OR (MH "Pharmacy Administration+") OR (ab "rational use") OR (ab "supply chain") OR (MH "Vaccines+") OR (MH "Strategic Stockpile") OR (MH "Pharmaceutical Preparations+/SD")OR(MM "Economics+") OR (MM "Health Expenditures+") OR (MM "Health Care Costs+") OR (MH "Universal Coverage") OR (MH "Health Equity/EC") OR (MH "Utilization Review+/EC") OR (AB fund* OR subsidies OR subsidiz* OR subsidis* OR "universal health care" OR "universal health coverage")OR(MM "Delivery of Health Care") OR (MM "Delivery of Health Care, Integrated+") OR (MM "Health Services Accessibility+") OR (MM "Telemedicine+") OR (MM "Health Services Research+") OR (AB (decentrali* OR integration) AND health AND service*)

L+M+G		Locations		Building Blocks
Protocol 6				
((((team[Title] AND build*[Title]) OR coach*[Title] OR "organizational culture"[Title] OR "institutional culture"[Title] OR "team culture"[Title] OR "work climate"[Title] OR "institutional development"[Title] OR "organizational development"[Title] OR leader*[Title] OR "priority setting"[Title] OR "goal setting"[Title] OR "key priorities"[Title] OR leader*[Title] OR (defin*[Title] AND (stakeholder*[Title] OR strateg*[Title]))) OR ("Leadership"[Majr]) OR ("Mentors"[Mesh]) OR ("Cooperative Behavior"[Majr]) OR ("Health Facility Administrators"[Majr]) OR ("Institutional Management Teams"[Majr]) OR ("Health Care Evaluation Mechanisms"[Majr]) OR ("Health Planning Technical Assistance"[Majr]) OR ("Planning Techniques"[Mesh]) OR ("Health Planning/methods"[Mesh]) OR ("Program Evaluation/methods"[Mesh]) OR (((("monitoring and evaluation"[Title] OR "annual plans"[Title] OR "annual plan"[Title] OR "annual planning"[Title] OR (work[Title] AND process*[Title]) OR "manager"[Title] OR "managers"[Title] OR ((Manag*[Title] AND health[Title]) AND (work*[Title] OR system[Title] OR organisation[Title] OR organization[Title]))))) OR ("Policy Making"[Majr]) OR ("Governing Board"[Mesh]) OR ("Professional Autonomy"[Mesh]) OR ("Health Equity/ethics"[Mesh]) OR ("Health Equity/standards"[Mesh]) OR ("strategic vision"[Title/Abstract] OR "feedback mechanisms"[Title/Abstract] OR "shared action plan"[Title/Abstract])	AND	(("Africa"[Mesh]) OR ("Developing Countries"[Mesh]) OR "angola"[Mesh] OR "albania"[Mesh] OR "algeria"[Mesh] OR "american samoa"[Mesh] OR "argentina"[Mesh] OR "azerbaijan"[Mesh] OR "republic of belarus"[Mesh] OR "belize"[Mesh] OR "bosnia herzegovina"[Mesh] OR "botswana"[Mesh] OR "brazil"[Mesh] OR "bulgaria"[Mesh] OR "china"[Mesh] OR "colombia"[Mesh] OR "costa rica"[Mesh] OR "cuba"[Mesh] OR "dominica"[Mesh] OR "dominican republic"[Mesh] OR "ecuador"[Mesh] OR "fiji"[Mesh] OR "gabon"[Mesh] OR "grenada"[Mesh] OR "hungary"[Mesh] OR "iran"[Mesh] OR "iraq"[Mesh] OR "jamaica"[Mesh] OR "jordan"[Mesh] OR "kazakhstan"[Mesh] OR "lebanon"[Mesh] OR "libya"[Mesh] OR "macedonia republic"[Mesh] OR "malaysia"[Mesh] OR "indian ocean islands"[Mesh] OR "micronesia"[Mesh] OR "mauritius"[Mesh] OR "mexico"[Mesh] OR "montenegro"[Mesh] OR "namibia"[Mesh] OR "panama"[Mesh] OR "peru"[Mesh] OR "romania"[Mesh] OR "serbia"[Mesh] OR "south africa"[Mesh] OR "saint lucia"[Mesh] OR "saint vincent and the grenadines"[Mesh] OR "suriname"[Mesh] OR "thailand"[Mesh] OR "tonga"[Mesh] OR "tunisia"[Mesh] OR "turkey"[Mesh] OR "turkmenistan"[Mesh] OR "venezuela"[Mesh] OR "armenia"[Mesh] OR "bhutan"[Mesh] OR "bolivia"[Mesh] OR "cameroon"[Mesh] OR "cape verde"[Mesh] OR "congo"[Mesh] OR "cote d'ivoire"[Mesh] OR "djibouti"[Mesh] OR "egypt"[Mesh] OR "el salvador"[Mesh] OR "georgia republic"[Mesh] OR "ghana"[Mesh] OR "guatemala"[Mesh] OR "guyana"[Mesh] OR "honduras"[Mesh] OR "indonesia"[Mesh] OR "india"[Mesh] OR "micronesia"[Mesh] OR "kosovo"[Mesh] OR "kyrgyzstan"[Mesh] OR "laos"[Mesh] OR "lesotho"[Mesh] OR "mauritania"[Mesh] OR "moldova"[Mesh] OR "mongolia"[Mesh] OR "morocco"[Mesh] OR "nicaragua"[Mesh] OR "nigeria"[Mesh] OR "pakistan"[Mesh] OR "papua new guinea"[Mesh] OR "paraguay"[Mesh] OR "philippines"[Mesh] OR "samoa"[Mesh] OR "Sao Tome and Principe" OR "senegal"[Mesh] OR "melanesia"[Mesh] OR "south sudan" OR "swaziland"[Mesh] OR "syria"[Mesh] OR "east timor"[Mesh] OR "ukraine"[Mesh] OR "uzbekistan"[Mesh] OR "vanuatu"[Mesh] OR "vietnam"[Mesh] OR "gaza" OR "yemen"[Mesh] OR "zambia"[Mesh] OR "afghanistan"[Mesh] OR "bangladesh"[Mesh] OR "benin"[Mesh] OR "burkina faso"[Mesh] OR "burundi"[Mesh] OR "cambodia"[Mesh] OR "central african republic"[Mesh] OR "chad"[Mesh] OR "comoros"[Mesh] OR "democratic republic of the congo"[Mesh] OR "eritrea"[Mesh] OR "ethiopia"[Mesh] OR "gambia"[Mesh] OR "guinea"[Mesh] OR "guinea bissau"[Mesh] OR "haiti"[Mesh] OR "kenya"[Mesh] OR "democratic people's republic of korea"[Mesh] OR "liberia"[Mesh] OR "madagascar"[Mesh] OR "malawi"[Mesh] OR "mali"[Mesh] OR "mozambique"[Mesh] OR "myanmar"[Mesh] OR "nepal"[Mesh] OR "niger"[Mesh] OR "rwanda"[Mesh] OR "sierra leone"[Mesh] OR "somalia"[Mesh] OR "tajikistan"[Mesh] OR "tanzania"[Mesh] OR "togo"[Mesh] OR "uganda"[Mesh])	AND	("Health Information Management"[Mesh]) OR ("Decision Support Systems, Clinical"[Mesh]) OR ("Decision Support Systems, Management"[Mesh]) OR ("Public Health Surveillance/methods"[Mesh]) OR ("Medical Informatics"[Mesh]) OR ("Management Information Systems"[Mesh]) OR ("Medical Records") OR ("health information"[Title/Abstract] OR "information systems"[Title/Abstract] OR "information system"[Title/Abstract] OR "data quality"[Title/Abstract] OR "information quality"[Title/Abstract]) OR ("Personnel Management"[Mesh]) OR ("Health Personnel"[Mesh]) OR ("Health Manpower"[Mesh]) OR ("human resources for health"[Title/Abstract]) OR ("Public Health/manpower"[Mesh]) OR ("Attitude of Health Personnel"[Mesh]) OR ("Physicians/psychology"[Mesh]) OR ("Professional Competence"[Mesh]) OR ("Pharmaceutical Services"[Mesh]) OR ("Fees, Pharmaceutical"[Mesh]) OR ("Ethics, Pharmacy"[Mesh]) OR ("Education, Pharmacy"[Mesh]) OR ("Pharmacy Administration"[Mesh]) OR ("rational use"[Title/Abstract]) OR ("supply chain"[Title/Abstract]) OR ("Vaccines"[Mesh]) OR ("Strategic Stockpile"[Mesh]) OR ("Pharmaceutical Preparations/standards"[Mesh]) OR ("Economics"[Majr]) OR ("Health Expenditures"[Majr]) OR ("Health Care Costs"[Majr]) OR ("Universal Coverage"[Mesh]) OR ("Health Equity/economics"[Mesh]) OR ("Utilization Review/economics"[Mesh]) OR (fund*[Title/Abstract] OR subsidies[Title/Abstract] OR (subsidiz*[Title/Abstract] OR subsidis*[Title/Abstract]) OR "universal health care"[Title/Abstract] OR "universal health coverage"[Title/Abstract]) OR ("Delivery

L+M+G	Locations	Building Blocks
OR (("accountability"[Title] OR "governing"[Title] OR "governance"[Title] OR "code of conduct"[Title] OR "codes of conduct"[Title] OR "Resource Allocation"[Title] OR "stewardship"[Title] OR oversight[Title] OR transparency[Title] OR responsiveness[Title] OR fraud[Title] OR corrupt*)[Title]) OR ((health Policy[title] AND (formation[title] OR creation[title] OR development[title])))))		of Health Care"[Majr]) OR ("Delivery of Health Care, Integrated"[Majr]) OR ("Health Services Accessibility"[Majr]) OR ("Telemedicine"[Majr]) OR ("Health Services Research"[Majr]) OR ((decentrali*[Title/Abstract] OR integration[Title/Abstract]) AND health[Title/Abstract] AND service*[Title/Abstract])

L+M+G		Locations		Building Blocks
Protocol 7				
(TI ((team AND build*) OR coach* OR "organizational culture" OR "institutional culture" OR "team culture" OR "work climate" OR "institutional development" OR "organizational development" OR leader* OR "priority setting" OR "goal setting" OR "key priorities" OR leader* OR (defin* AND (stakeholder* OR strateg*))) OR (MM "Leadership") OR (MH "Mentors") OR (MM "Cooperative Behavior")OR(MM "Health Facility Administrators") OR (MM "Institutional Management Teams") OR (MM "Health Care Evaluation Mechanisms") OR (MM "Health Planning Technical Assistance") OR (MH "Planning Techniques") OR (MH "Health Planning/MT") OR (MM "Program Evaluation+/MT") OR (TI (("monitoring and evaluation" OR "annual plans" OR "annual plan" OR "annual planning" OR work W0 process* OR "manager" OR "managers" OR (Manag* health (work* OR system OR organisation OR organization))))OR(MM "Policy Making") OR (MH "Governing Board+") OR (MH "Professional Autonomy") OR (MH "Health Equity/ST/ES") OR (AB "strategic vision" OR "feedback mechanisms" OR "shared action plan") OR (TI ("accountability" OR "governing" OR "governance" OR "code of conduct" OR "codes of conduct" OR "Resource Allocation" OR "stewardship" OR oversight OR OR transparency OR responsiveness OR fraud OR corrupt*) OR (TI (health Policy (formation OR creation OR development))))	AND	((MH "Africa+") OR (MH "Developing Countries") OR (MH "afghanistan") OR (MH "bangladesh") OR (MH "benin") OR (MH "burkina faso") OR (MH "burundi") OR (MH "cambodia") OR (MH "central african republic") OR (MH "chad") OR (MH "comoros") OR (MH "democratic republic of the congo") OR (MH "eritrea") OR (MH "ethiopia") OR (MH "gambia") OR (MH "guinea") OR (MH "guinea bissau") OR (MH "haiti") OR (MH "kenya") OR (MH "democratic people's republic of korea") OR (MH "liberia") OR (MH "madagascar") OR (MH "malawi") OR (MH "mali") OR (MH "mozambique") OR (MH "myanmar") OR (MH "nepal") OR (MH "niger") OR (MH "rwanda") OR (MH "sierra leone") OR (MH "somalia") OR (MH "tajikistan") OR (MH "tanzania") OR (MH "togo") OR (MH "uganda") OR (MH "armenia") OR (MH "bhutan") OR (MH "bolivia") OR (MH "cameroon") OR (MH "cape verde") OR (MH "congo") OR (MH "cote d'ivoire") OR (MH "djibouti") OR (MH "egypt") OR (MH "el salvador") OR (MH "georgia republic") OR (MH "ghana") OR (MH "guatemala") OR (MH "guyana") OR (MH "honduras") OR (MH "indonesia") OR (MH "india") OR (MH "micronesia") OR (MH "kosovo") OR (MH "kyrgyzstan") OR (MH "laos") OR (MH "lesotho") OR (MH "mauritania") OR (MH "moldova") OR (MH "mongolia") OR (MH "morocco") OR (MH "nicaragua") OR (MH "nigeria") OR (MH "pakistan") OR (MH "papua new guinea") OR (MH "paraguay") OR (MH "philippines") OR (MH "samoa") OR (MH "Sao Tome and Principe") OR (MH "senegal") OR (MH "melanesia") OR (MH "south sudan") OR (MH "swaziland") OR (MH "syria") OR (MH "east timor") OR (MH "ukraine") OR (MH "uzbekistan") OR (MH "vanuatu") OR (MH "vietnam") OR (MH "gaza") OR (MH "yemen") OR (MH "zambia") OR (MH "angola") OR (MH "albania") OR (MH "algeria") OR (MH "american samoa") OR (MH "argentina") OR (MH "azerbaijan") OR (MH "republic of belarus") OR (MH "belize") OR (MH "bosnia herzegovina") OR (MH "botswana") OR (MH "brazil") OR (MH "bulgaria") OR (MH "china") OR (MH "colombia") OR (MH "costa rica") OR (MH "cuba") OR (MH "dominica") OR (MH "dominican republic") OR (MH "ecuador") OR (MH "fiji") OR (MH "gabon") OR (MH "grenada") OR (MH "hungary") OR (MH "iran") OR (MH "iraq") OR (MH "jamaica") OR (MH "jordan") OR (MH "kazakhstan") OR (MH "lebanon") OR (MH "libya") OR (MH "macedonia republic") OR (MH "malaysia") OR (MH "indian ocean islands") OR (MH "micronesia") OR (MH "mauritius") OR (MH "mexico") OR (MH "montenegro") OR (MH "namibia") OR (MH "panama") OR (MH "peru") OR (MH "romania") OR (MH "serbia") OR (MH "south africa") OR (MH "saint lucia") OR (MH "saint vincent and the grenadines") OR (MH "suriname") OR (MH "thailand") OR (MH "tonga") OR (MH "tunisia") OR (MH "turkey") OR (MH "turkmenistan") OR (MH "venezuela"))	AND	"access to medicine" OR "access to medicines" OR "access to pharmaceutical" OR "access to pharmaceuticals" OR "pharmaceutical management" OR "pharmaceutical system" OR "pharmaceutical systems" OR (rational AND (use OR prescribing OR dispensing) OR (appropriate AND (use OR prescribing OR dispensing)) OR ("cost-effective" (OR prescribing OR dispensing)) OR "cost-effective use" OR AB (medicine* OR pharmac* OR drug*) AND ((supply system) OR selection OR procur* OR distributi* OR registration OR regulat*))

L+M+G		Locations	Building Blocks	
Protocol 8				
(TI ((team AND build*) OR coach* OR "organizational culture" OR "institutional culture" OR "team culture" OR "work climate" OR "institutional development" OR "organizational development" OR leader* OR "priority setting" OR "goal setting" OR "key priorities" OR leader* OR (defin* AND (stakeholder* OR strateg*))) OR (MM "Leadership") OR (MH "Mentors") OR (MM "Cooperative Behavior") OR (MM "Health Facility Administrators") OR (MM "Institutional Management Teams") OR (MM "Health Care Evaluation Mechanisms") OR (MM "Health Planning Technical Assistance") OR (MH "Planning Techniques") OR (MH "Health Planning/MT") OR (MM "Program Evaluation+/MT") OR (TI (("monitoring and evaluation" OR "annual plans" OR "annual plan" OR "annual planning" OR work W0 process* OR "manager" OR "managers" OR (Manag* health (work* OR system OR organisation OR organization)))) OR (MM "Policy Making") OR (MH "Governing Board+") OR (MH "Professional Autonomy") OR (MH "Health Equity/ST/ES") OR (AB "strategic vision" OR "feedback mechanisms" OR "shared action plan") OR (TI ("accountability" OR "governing" OR "governance" OR "code of conduct" OR "codes of conduct" OR "Resource Allocation" OR "stewardship" OR oversight OR OR transparency OR responsiveness OR fraud OR corrupt*) OR (TI (health Policy (formation OR creation OR development))))	AND	((MH "Africa+") OR (MH "Developing Countries") OR (MH "afghanistan") OR (MH "bangladesh") OR (MH "benin") OR (MH "burkina faso") OR (MH "burundi") OR (MH "cambodia") OR (MH "central african republic") OR (MH "chad") OR (MH "comoros") OR (MH "democratic republic of the congo") OR (MH "eritrea") OR (MH "ethiopia") OR (MH "gambia") OR (MH "guinea") OR (MH "guinea bissau") OR (MH "haiti") OR (MH "kenya") OR (MH "democratic people's republic of korea") OR (MH "liberia") OR (MH "madagascar") OR (MH "malawi") OR (MH "mali") OR (MH "mozambique") OR (MH "myanmar") OR (MH "nepal") OR (MH "niger") OR (MH "rwanda") OR (MH "sierra leone") OR (MH "somalia") OR (MH "tajikistan") OR (MH "tanzania") OR (MH "togo") OR (MH "uganda") OR (MH "armenia") OR (MH "bhutan") OR (MH "bolivia") OR (MH "cameroon") OR (MH "cape verde") OR (MH "congo") OR (MH "cote d'ivoire") OR (MH "djibouti") OR (MH "egypt") OR (MH "el salvador") OR (MH "georgia republic") OR (MH "ghana") OR (MH "guatemala") OR (MH "guyana") OR (MH "honduras") OR (MH "indonesia") OR (MH "india") OR (MH "micronesia") OR (MH "kosovo") OR (MH "kyrgyzstan") OR (MH "laos") OR (MH "lesotho") OR (MH "mauritania") OR (MH "moldova") OR (MH "mongolia") OR (MH "morocco") OR (MH "nicaragua") OR (MH "nigeria") OR (MH "pakistan") OR (MH "papua new guinea") OR (MH "paraguay") OR (MH "philippines") OR (MH "samoa") OR (MH "Sao Tome and Principe" OR (MH "senegal") OR (MH "melanesia") OR (MH "south sudan" OR (MH "swaziland") OR (MH "syria") OR (MH "east timor") OR (MH "ukraine") OR (MH "uzbekistan") OR (MH "vanuatu") OR (MH "vietnam") OR (MH "gaza" OR (MH "yemen") OR (MH "zambia") OR (MH "angola") OR (MH "albania") OR (MH "algeria") OR (MH "american samoa") OR (MH "argentina") OR (MH "azerbaijan") OR (MH "republic of belarus") OR (MH "belize") OR (MH "bosnia herzegovina") OR (MH "botswana") OR (MH "brazil") OR (MH "bulgaria") OR (MH "china") OR (MH "colombia") OR (MH "costa rica") OR (MH "cuba") OR (MH "dominica") OR (MH "dominican republic") OR (MH "ecuador") OR (MH "fiji") OR (MH "gabon") OR (MH "grenada") OR (MH "hungary") OR (MH "iran") OR (MH "iraq") OR (MH "jamaica") OR (MH "jordan") OR (MH "kazakhstan") OR (MH "lebanon") OR (MH "libya") OR (MH "macedonia republic") OR (MH "malaysia") OR (MH "indian ocean islands") OR (MH "micronesia") OR (MH "mauritius") OR (MH "mexico") OR (MH "montenegro") OR (MH "namibia") OR (MH "panama") OR (MH "peru") OR (MH "romania") OR (MH "serbia") OR (MH "south africa") OR (MH "saint lucia") OR (MH "saint vincent and the grenadines") OR (MH "suriname") OR (MH "thailand") OR (MH "tonga") OR (MH "tunisia") OR (MH "turkey") OR (MH "turkmenistan") OR (MH "venezuela"))	AND	"health systems"

L+M+G		Locations		Building Blocks
Protocol 9				
(TI ((team AND build*) OR coach* OR "organizational culture" OR "institutional culture" OR "team culture" OR "work climate" OR "institutional development" OR "organizational development" OR leader* OR "priority setting" OR "goal setting" OR "key priorities" OR leader* OR (defin* AND (stakeholder* OR strateg*))) OR (MM "Leadership") OR (MH "Mentors") OR (MM "Cooperative Behavior")OR(MM "Health Facility Administrators") OR (MM "Institutional Management Teams") OR (MM "Health Care Evaluation Mechanisms") OR (MM "Health Planning Technical Assistance") OR (MH "Planning Techniques") OR (MH "Health Planning/MT") OR (MM "Program Evaluation+/MT") OR (TI (("monitoring and evaluation" OR "annual plans" OR "annual plan" OR "annual planning" OR work W0 process* OR "manager" OR "managers" OR (Manag* health (work* OR system OR organisation OR organization))))OR(MM "Policy Making") OR (MH "Governing Board+") OR (MH "Professional Autonomy") OR (MH "Health Equity/ST/ES") OR (AB "strategic vision" OR "feedback mechanisms" OR "shared action plan") OR (TI ("accountability" OR "governing" OR "governance" OR "code of conduct" OR "codes of conduct" OR "Resource Allocation" OR "stewardship" OR oversight OR OR transparency OR responsiveness OR fraud OR corrupt*) OR (TI (health Policy (formation OR creation OR development))))	AND	((MH "Africa+") OR (MH "Developing Countries") OR (MH "afghanistan") OR (MH "bangladesh") OR (MH "benin") OR (MH "burkina faso") OR (MH "burundi") OR (MH "cambodia") OR (MH "central african republic") OR (MH "chad") OR (MH "comoros") OR (MH "democratic republic of the congo") OR (MH "eritrea") OR (MH "ethiopia") OR (MH "gambia") OR (MH "guinea") OR (MH "guinea bissau") OR (MH "haiti") OR (MH "kenya") OR (MH "democratic people's republic of korea") OR (MH "liberia") OR (MH "madagascar") OR (MH "malawi") OR (MH "mali") OR (MH "mozambique") OR (MH "myanmar") OR (MH "nepal") OR (MH "niger") OR (MH "rwanda") OR (MH "sierra leone") OR (MH "somalia") OR (MH "tajikistan") OR (MH "tanzania") OR (MH "togo") OR (MH "uganda") OR (MH "armenia") OR (MH "bhutan") OR (MH "bolivia") OR (MH "cameroon") OR (MH "cape verde") OR (MH "congo") OR (MH "cote d'ivoire") OR (MH "djibouti") OR (MH "egypt") OR (MH "el salvador") OR (MH "georgia republic") OR (MH "ghana") OR (MH "guatemala") OR (MH "guyana") OR (MH "honduras") OR (MH "indonesia") OR (MH "india") OR (MH "micronesia") OR (MH "kosovo") OR (MH "kyrgyzstan") OR (MH "laos") OR (MH "lesotho") OR (MH "mauritania") OR (MH "moldova") OR (MH "mongolia") OR (MH "morocco") OR (MH "nicaragua") OR (MH "nigeria") OR (MH "pakistan") OR (MH "papua new guinea") OR (MH "paraguay") OR (MH "philippines") OR (MH "samoa") OR (MH "Sao Tome and Principe" OR (MH "senegal") OR (MH "melanesia") OR (MH "south sudan" OR (MH "swaziland") OR (MH "syria") OR (MH "east timor") OR (MH "ukraine") OR (MH "uzbekistan") OR (MH "vanuatu") OR (MH "vietnam") OR (MH "gaza" OR (MH "yemen") OR (MH "zambia") OR (MH "angola") OR (MH "albania") OR (MH "algeria") OR (MH "american samoa") OR (MH "argentina") OR (MH "azerbaijan") OR (MH "republic of belarus") OR (MH "belize") OR (MH "bosnia herzegovina") OR (MH "botswana") OR (MH "brazil") OR (MH "bulgaria") OR (MH "china") OR (MH "colombia") OR (MH "costa rica") OR (MH "cuba") OR (MH "dominica") OR (MH "dominican republic") OR (MH "ecuador") OR (MH "fiji") OR (MH "gabon") OR (MH "grenada") OR (MH "hungary") OR (MH "iran") OR (MH "iraq") OR (MH "jamaica") OR (MH "jordan") OR (MH "kazakhstan") OR (MH "lebanon") OR (MH "libya") OR (MH "macedonia republic") OR (MH "malaysia") OR (MH "indian ocean islands") OR (MH "micronesia") OR (MH "mauritius") OR (MH "mexico") OR (MH "montenegro") OR (MH "namibia") OR (MH "panama") OR (MH "peru") OR (MH "romania") OR (MH "serbia") OR (MH "south africa") OR (MH "saint lucia") OR (MH "saint vincent and the grenadines") OR (MH "suriname") OR (MH "thailand") OR (MH "tonga") OR (MH "tunisia") OR (MH "turkey") OR (MH "turkmenistan") OR (MH "venezuela"))	AND	(MH "Ebola Vaccines") OR (MH "Hemorrhagic Fever, Ebola") OR (MH "Ebolavirus") OR (TI ebola OR AB ebola) OR ((AB "real time" OR AB "real-time") AND AB (Disease* OR surveillance))