Governance in Health Systems: towards a new framework for assessment

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Abstract

Background: As countries strive to strengthen their health systems in resource constrained contexts, policy makers need to know how best to improve performance of their health systems. To aid these decisions, health system stewards should have a good understanding of how health systems operate in order to govern them appropriately. The importance of governance as a vital element of the health system is becoming increasingly appreciated, along with expectations that governance in health systems be better defined, measured and improved. While a number of frameworks for assessing governance in health systems have been proposed, empirical work on governance in health systems has been limited.

Methods: This paper reviews contemporary health sector frameworks which have focused on defining and developing indicators to assess governance in the health sector. Based on these, we propose a new and more analytic framework for governance of health systems which encourages stakeholders to take a systematic perspective when assessing governance and we provide an example of how to do so.

Discussion: This framework is intended to be broadly applicable to all countries and is currently being applied in a low-income country setting to illuminate areas of strong and weak governance in the health sector addressable by targeted interventions and policies.
Background

Low- and middle-income countries are in an era of unprecedented expansion of financial resources for health, both from development assistance and government spending [1,1]. However, during the recent financial crisis, many donors and governments were forced to cut back funding for health [2], requiring health system stewards to pay more attention to the performance of health systems. Although funding levels can significantly influence health system performance, a large part of variation in health system performance across countries cannot be explained by traditional factors. Rather, a deeper exploration of governance issues could explain some of these differences. Understanding governance issues is especially important for fragile health systems in less developed countries which must cope with large and changing disease burdens with inadequate resources, as well as manage a plethora of stakeholders and Global Health Initiatives representing funding partners who finance a large share of their health systems.

There has been increasing global and national interest in developing theoretical frameworks for defining and measuring general governance [3-5]. Corresponding to this, there has been an increased interest in the assessment of governance in the health sector which is particularly important considering the characteristics of the health sector such as asymmetry of information, uncertainty and the large number of stakeholders [6]. In this paper, we review and build-on prior frameworks to propose a new and practical analytical framework for assessing health system governance with a view to guiding health system-level interventions from a governance perspective.
Governance in Health Systems

Furthering the discourse on governance is important as this topic is often neglected in international and national debates due to its complex and sometimes sensitive nature. The importance of governance in health systems is evident from the fact that most conceptualisations and descriptions of health systems developed over the past decade include aspects of governance, either in terms of stewardship, regulation, oversight or governance itself (Table 1).

Table 1 goes here

Chronology of major health system definitions, frameworks and concepts

One of the most well known and provocative contributions to the health system discourse is the 2000 World Health Organisation’s World Health Report on ‘Health Systems: Improving Performance’. In this report, the health system was defined as “all activities whose primary purpose is to promote, restore or maintain health” and was presented as having four functions: stewardship; resource generation; financing; and service provision. Governance is included under the concept of stewardship which in turn was defined as “the careful and responsible management of the well-being of the population”. The objectives of the health system were defined as: 1) improving the health of the population they serve; 2) responding to people’s expectations; and 3) providing financial protection against the cost of ill health [7]. The WHO 2000 health system framework was later updated in 2007 with the release of the WHO report ‘Everybody’s Business: Strengthening Health Systems to Improve Health Outcomes: WHO’s Framework for Action’ where the health system architecture was further elaborated as having six building blocks: leadership and
governance; health workforce; information; medical products, vaccines and technologies; financing; and service delivery [8]. Here, governance was proposed as “ensuring that strategic policy frameworks exist and are combined with effective oversight, coalition building, regulation, attention to system-design and accountability”. A year later, the WHO further developed their conceptual framework for primary health care by placing people in the centre of the health system [9]. People are vital to the functioning of a health system, both benefiting from it and contributing to it as tax payers and also co-producers of health by adopting certain lifestyle choices [10]. A further refinement of the WHO 2007 framework was proposed by de Savigny and Adam (2009) who highlighted the importance of a systems thinking view of the synergies and interactions among and across all building blocks [11]. They point out that governance operates in its own right in the system as well as in every other building block. This is important as any intervention in one building block of the health system is likely to have system-wide effects.

Thus, as the conceptualisation of health systems has evolved, so has a deepening of the understanding of the critical role of governance. However, methods to systematically assess governance in health systems remain scarce. In the following section, we review various studies which have focused on governance in health and highlight the substantial contributions which they have made towards our overall understanding of the importance of governance.
Methods

How has governance in health systems been conceived so far?

A substantial number of studies have discussed the various effects of select aspects of governance on the health sector [12-22]. Furthermore, some studies have empirically assessed the magnitude and impact of certain governance elements on health sector performance [23-25]. In general, most of the literature on governance and health has focused on single elements of governance such as degree of government effectiveness, degree of corruption and community participation. They investigated these components against proxy indicators of health sector outcomes or performance such as immunization rates, percentage of low birth weight babies or child mortality. Although important in that they provide evidence of a relationship, these studies do not account for other potential governance elements which could affect the performance of a health system.

Defining governance within the health sector is still relatively new and the composition of governance varies across reports, suggesting that the conceptualisation of governance is on ongoing process. There are, however, a few common elements in governance as identified in Table 2.

The latest body of work on governance in health goes further into developing approaches to assess overall governance within the health system [26-29]. These examples suggest indicators which can be broadly divided into two groups: 1) determinants of governance; and 2) governance performance indicators [30]. Determinants of governance (or rule based indicators as they are sometimes referred
to) describe whether a procedure, regulation, policy or law exists, whilst a
governance performance indicator assesses to what degree rules or policies have
been followed and enforced. In general, it is easier to obtain determinants indicators
than performance indicators which usually require surveys such as Public
Expenditure Tracking Surveys (PETS), facility surveys, exit interviews and
household interviews.

Islam (2007) approaches the assessment of governance in the health system by
using two summary components. The first is composed of the World Governance
Indicators (WGI) [31] developed by the World Bank which rates a country on six
governance dimensions: voice and accountability; political stability; governance
effectiveness; rule of law; regulatory quality; and control of corruption, leading to
an overall governance score for a country. The second component is health specific
and breaks governance into five dimensions: information and assessment capacity;
policy formulation and planning; social participation and system responsiveness;
accountability; and regulation. It proposes a set of illustrative questions to be
answered by key stakeholders such as how information is used, how government
coordinates donor inputs and who participates in setting the policy agenda. This
framework provides a comprehensive range of issues to explore and even provides
suggestions on which stakeholders to interview. It has so far been applied in various
countries including: Vietnam [32], Kenya [33] and Angola [34]. Common areas of
‘weak’ governance found were lack of participation, transparency and strategic
vision.
Using a similar approach, WHO (2010) developed a toolkit to assess health systems which included a governance module where they divide the assessment of governance in the health system into either rules-based or outcome-based indicators. The rules-based indicators cover topics such as the existence of an essential medicines list and the existence of key health sector documents. The outcome-based indicators ask questions about the rate of stock out, or the proportion of informal payments. Both rule-based and outcome-based indicators are important. However a weakness of the WHO (2010) toolkit is that despite it being a ‘health system toolkit’, it asks questions that are limited to disease-specific or vertical programs such as HIV/AIDS, reproductive health, malaria and tuberculosis, thus leaving out other key areas such as mental health. Furthermore, asking about the ‘existence’ of such policies says little about their implementation. At present, we can find no example where WHO governance monitoring module has been applied.

Lewis and Pettersson (2009) developed a list of governance indicators for health systems grouped into five topics: budget management; human resources; institutional providers; informal payments; and institutions. Within each topic, groups of questions are proposed to investigate the topic in detail. For example, within human resources, questions include both governance determinants such as the existence of a licensing system for health care professionals, and performance based such as frequency of illegal side-payments influencing hiring decisions, or fraction of contracted staff not on site during visit. These indicators together with questions on the design of incentives, allow the researcher to gain more in-depth understanding of the governance challenges for that particular topic. The indicators are generic enough to allow for comparisons, and are a mix of those which can be
obtained easily (such as the Country Policy and Institutional Assessment - CPIA index), and those which are much more challenging such as the frequency of under-the-table payments. This framework too has not been applied in full in any country to date.

Table 2 goes here.

**Summary of governance elements as addressed in selected contemporary health literature**

Another health-system specific governance framework was developed by Siddiqi et al (2009). The authors adapt the UNDP good governance concept [4] to produce a framework which encompasses ten health system governance principles to assess governance of the health system. For each principle, broad questions are proposed for both the national policy formulation level and at implementation levels. The analytical framework has been used for an assessment of health system governance in Pakistan and identified several areas of weakness such as lack of accountability at the national level and little strategic vision in designing policies.

Finally, there is also a sector-specific governance assessment toolkit (‘Good Governance for Medicines’) developed by WHO which focuses entirely on the pharmaceutical sector[19]. The principle goal of this assessment framework is to evaluate transparency in the sector and is accompanied by a guide on how to assess responses, thus reducing subjective judgement. This assessment has been applied in 26 countries including: Bolivia; Cambodia; Jordan; Indonesia; Mongolia; and Papua New Guinea.
Most of these frameworks provide ‘snapshots’ of the state of governance in health systems by developing both quantitative and qualitative indicators. This is advantageous as they can highlight areas of possible gross weakness (e.g. if a country has no recent essential medicines list, or if there are irregularities in the payroll for health workers, or a lack of transparency in resource allocation). Some of these frameworks such as WHO (2010) and Lewis and Pettersson (2009) also permit cross-country comparisons which are useful at the international level. However, despite this information being useful for donors or international organisations, it is questionable whether it is useful for health system stewards who probably already know where such governance weaknesses are in their health systems and instead need to better understand why, where and how to intervene.

Towards a new approach to assessing governance in health systems

For a governance framework to be of use to a health system steward it should: 1) be indicative of where governance issues are; 2) weight the individual elements composing governance in order to identify major drivers for “strong” or “weak” governance; and 3) provide a systematic way to assess these complexities. Our conceptual framework is based on the WHO (2008) model of the health system, but modified to adopt the systems thinking approach suggested by de Savigny and Adam (2009) where all the areas (or building blocks) intertwine (Figure 1).

Figure 1. goes here.
Major interdependent health system building blocks
For the purposes of extending a system-wide view of governance in the health system we appreciate that not all six building blocks are conceptually equivalent blocks. We see service delivery as a health system output and a primary interface for perceived quality of the health system. Conversely, the health workforce; information; medicines and technologies; and financing building blocks are health system inputs. As governance includes overseeing the entire health system, it underlies all other building blocks and is driven by people and actors in the system. This re-orientation of the WHO (2007) building blocks informs the basis of our framework.

In our framework (Figure 2), we draw the most relevant and common governance elements found in Table 2 into a non-linear, systems thinking perspective on the health system. These elements can influence the functionality of the health system and can aid stewards to understand how the health system performs.

A vital element of good health system governance is the drive for long term **strategic vision** which is led by stewards using **transparent** information and which needs to be translated into appropriate policies with clear rules and correctly set incentives. A well designed system should increase integration and reduce fragmentation and duplication, and it should encourage **participation** of all stakeholders, both state and non-state (such as citizen groups, pharmaceutical companies, insurance firms) in designing policies. As participation should include voices of numerous stakeholders which may not always be homogenous, health system stewards should strive to **seek consensus**. Although participation is encouraged, there are instances when too much participation could delay or even
harm the delivery of health care [30]. It is also important for stewards to understand the possible informal influences which various stakeholders could be susceptible to and which could influence their voice. To ensure that the rules of the system are adhered to, a major process element of good health system governance is being accountable. Accountability involves “holding public officials/service providers answerable for processes and outcomes and imposing sanctions if specified outcomes are not delivered” [28]. More specifically, accountability requires identifying who has authority over what decisions and what their responsibilities include. It also includes how is transparent information on responsibilities, available resources and performance transmitted and used, and what incentives and sanctions are in place which may distort behaviours [30]. If all these elements are in place they can aid in addressing corruption “misuse of entrusted power for private gain” [14].

Although both ‘regulation’ and ‘information’ were common governance elements seen in Table 2, we did not include them as elements in their own right in our framework, as creating information we believe is addressed in the information building block, and as regulation includes addressing incentives, setting rules and enforcing them, we believe this is covered in accountability and system design.

**Figure 2. goes here.**

**A framework for assessing governance across the health system**

In summary, a well governed health system should have clear goals based on a certain degree of participation of relevant stakeholders especially those from disadvantaged groups, and from which transparent policies are designed and
adhered to by promoting accountability and reducing the risk of corruption.
Although we describe ‘strategic vision & policy design’ and ‘participation & consensus orientation’ as inputs and the others as processes, these are all interlinked within the governance building block and are dynamic and interchangeable. For example, improving accountability can be considered as an input to strengthening governance. Even an improvement in a single governance element would be an improvement in governance. For example, mitigating ways in which corruption can develop, or improving the transparency of budget allocation would both be considered an improvement in governance. However, these improvements in governance may not be sufficient to increase overall health system performance due to various non-governance factors which can influence overall health system performance [30]. Improved health system performance is a rather general term which could include various outcomes depending on the different interest groups within the health system. It could mean, for example, increased profit maximization for insurance companies, better effective coverage [35] for policy developers, increased responsiveness to the demands and needs of the population for citizen groups, or a general increased level and distribution of health.

How this framework can be applied
Our framework proposes a new and practical way to look at governance problems through the system-wide building block approach of WHO (2007). It is designed to start from a specific governance problem, for example informal payments or unaccounted losses of essential medicines. In this way, our framework follows that of Savedoff (2009) who suggests that for assessment of governance in the health sector, a particular unit of analysis must be identified to focus the attention on
relationships and issues which matter. However, it differs in that our starting point is not necessarily an organisation or unit, but a problem which may involve various dimensions across building blocks of the system and therefore requires a broader assessment approach. Our framework guides the evaluator to assess more comprehensively the various elements of the governance failure across the system. Like Siddiqi et al (2009) we also recommend that governance is assessed at different levels of the system such as the community, health facility, district, through to the national policy level and beyond, even considering the influence of other organisations such as unions, insurance companies, and international partners who may profoundly affect the relationships and rules of the system. Depending on the initial starting point problem, the relevant importance of the different building blocks or governance elements may vary. For example, the relationships which are studied to understand the reasons for variations in medicine prices throughout a country will be different to those which look at whether recruitment is based on skills. If our framework is applied to various issues, it may illuminate common governance issues across various levels of the health system or common entry points for intervention.

Limitations. A limitation of our framework is that as it doesn’t provide a standard list of indicators. It does not allow comparisons between different contexts due to its broad nature, but it does take better account of the complexity of governance and is more flexible in that it includes all relevant aspects compared to other approaches based on standardised indicators. Our framework is also limited in that it must begin with an identifiable weakness in governance. This could be identified by applying one of the previous frameworks such as Islam 2007, Siddiqi et al (2009), or Lewis...
and Petterson (2009). Another limitation is that it only highlights where the barriers are and not how to design appropriate interventions. However by providing this first piece of the puzzle, stewards would be more informed and thus empowered to design interventions.

**Example of an application**

The starting point for the application of our framework would be to select an issue which impedes a health system outcome, for example limiting access and benefit from a public health care service. Various examples have been given above, so for purposes of illustration here we take health worker absenteeism in a health system as an example of an issue which constrains people from receiving full on timely health care services.

The *first* step for the applier would be to map all the relevant stakeholders involved in human resource decisions and what their roles, authorities, responsibilities and power relationships are.

The *second* step after stakeholder mapping is to work with stakeholders to identify areas where potential problems could be occurring. This can be done as a facilitated brainstorming looking for example at possible reasons for absenteeism through considering the design of the system, lines of authority to make decisions, or the level inclusiveness of various groups in the design stage, or transparency of information and how it flows to those with managerial capacity. This can then be represented in a table according to our framework (the *third* step), Table 3 illustrates this with an example (health worker absenteeism). As we encourage the
assessment of governance throughout the health system, we have included a column for governance, as the user also needs to assess the governance of the governing structures (such as health boards). This table guides the user across the framework so as to consider the various elements of governance and how they manifest across the health system. It thus forces the user to take into account areas of the health system which they may not necessarily have considered. For example, the irregular flow of medicines and supplies could discourage health workers from being present.

Table 3 goes here.

Illustration of application of framework: Considering the determinants for unauthorized health worker absenteeism in public facilities

The fourth step is for the evaluators and stewards of the system to examine this Table to rank the most likely combination of tractable issues to be evaluated and identify the balance of incentives and disincentives which could explain the root cause of the problem, and may vary depending on the context (rural or urban). This process could also aid in identifying the areas of strong governance which could be replicated in other areas of the system. The fifth step is to design an evaluation of the system-level governance interventions that follows the systems thinking approach [11] of combining process, contexts, effects and economic evaluation.

In this example, the direct outcome for the health system of having unnecessary staff absenteeism at public health facilities will be reduced services for patients, which may result in longer waiting times and increased dissatisfaction with the health system. If there are limited alternatives in the public sector, patients may lose faith in the public system and turn to the private sector which is usually more
expensive and generally even less regulated. This will have equity implications as the poorest segments of the community who may have benefited from free health care, now need to purchase their care, or go without care at all. Once these reasons for absenteeism of health staff are identified and understood, the health system can respond by developing and implementing interventions that try to promote incentives which make being absent less attractive. The outcome of this will be to reduce the problem of absenteeism which should have positive consequences for the health system.

**Discussion**

Assessing and understanding governance in the health system is crucial as public officials, donors and researchers strive to understand how to improve the performance of health systems. The concept of governance in health systems has evolved from a complex and often neglected issue in health policy debates to one which now features regularly in discussions and has motivated new research. Our framework draws heavily on prior work but differs in that it takes a problem-driven, system-wide approach. Its application starts with a certain governance issue which constrains the health system in performing to its optimum capacity and promotes an outward application taking into consideration the major health system building blocks at various levels. In this way, our framework avoids reductionist thinking of only looking at input-output-outcome considerations for any given problem. It encourages the applier to see the health system as a set of continuous and synergistic relationships. We believe this framework will advance the understanding and assessment of governance in health systems in a more practical way that can be implemented by health system practitioners who are not specialists in governance.
analysis. The framework recognises that governance permeates all health system building blocks. In summary, we hope application of this framework will help stewards of health systems to more rapidly identify key governance issues surrounding practical health system problems, identify the most promising entry points for system-level governance interventions, and evaluate progress in strengthening governance.

**Conclusion**

The importance of understanding governance in health systems is becoming increasingly apparent with several studies suggesting ways in which to assess it. Based on an assessment of contemporary literature we propose a new framework as a practical tool which we believe will facilitate comprehensive assessment of governance in health systems therefore leading to governance interventions to strengthen system performance and improve health as a basic human right. This framework should help advance our understanding of governance in developing and transitional countries where health systems are often underperforming due to lack of investment, poor design and weak management practices. This framework will help to illuminate areas for future intervention and the appropriate design of policies taking into consideration the potential impact they have on the entire health system.
Competing Interests

The authors declare that they have no competing interests.

Authors’ contributions

IML, KW and DDS contributed equally to the conceptualisation and design of the framework. IML wrote the manuscript and all authors reviewed, contributed to, and approved the final manuscript.

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References


Figures

Figure 1. Major interdependent health system building blocks. Reproduced with permission from de Savigny and Adam (2009)
Figure 2. A framework for assessing governance across the health system

Note: ‘strategic vision & policy design’ and ‘participation & consensus orientation’ can be viewed more conventionally as governance inputs, whilst ‘addressing corruption’, ‘being transparent’, and ‘being accountable’ are more governance processes.
### Tables

**Table 1.**

<table>
<thead>
<tr>
<th>Conceptualisation</th>
<th>Main governance aspects</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health System Performance</td>
<td>First emphasis on stewardship as a health system function</td>
<td>[36]</td>
</tr>
<tr>
<td>Essential Public Health Functions</td>
<td>Strengthening public health regulation and enforcement capacity as one of the eleven essential public health function</td>
<td>[37]</td>
</tr>
<tr>
<td>Control Knobs</td>
<td>Regulation as one of the health system control knobs to improve performance</td>
<td>[38]</td>
</tr>
<tr>
<td>Strengthening Health Systems</td>
<td>Strengthening health system capacity by focusing on stewardship and regulation</td>
<td>[39]</td>
</tr>
<tr>
<td>Health System Building blocks</td>
<td>Articulation of governance as one of the six major building blocks of the health system, and rephrasing stewardship into governance</td>
<td>[8]</td>
</tr>
<tr>
<td>Health Systems Dynamics</td>
<td>Identifying stewardship and organizational arrangements as one of the four levers available to policy makers to achieve objectives and goals</td>
<td>[40]</td>
</tr>
<tr>
<td>Maximizing positive synergies</td>
<td>Ensuring that governance along with the other six functions of a health system are driven by people to promote equity</td>
<td></td>
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<tr>
<td>-------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Systems thinking for Health Systems Strengthening</td>
<td>Links system thinking to health system building blocks, and conceptualizes governance across the building blocks.</td>
<td></td>
</tr>
<tr>
<td>Monitoring Building Blocks of the Health System</td>
<td>Proposes indicators for monitoring governance and the other building blocks of the health system</td>
<td></td>
</tr>
</tbody>
</table>
Table 2.

Summary of governance elements as addressed in selected contemporary health literature

<table>
<thead>
<tr>
<th>Governance element</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accountability</td>
<td>●</td>
</tr>
<tr>
<td>Effectiveness / efficiency</td>
<td>○</td>
</tr>
<tr>
<td>Equity</td>
<td>●</td>
</tr>
<tr>
<td>Ethics</td>
<td>○</td>
</tr>
<tr>
<td>Existence of standards</td>
<td></td>
</tr>
<tr>
<td>Incentives</td>
<td>●</td>
</tr>
<tr>
<td>Information / Intelligence</td>
<td>●</td>
</tr>
<tr>
<td>Participation / collaboration</td>
<td>●</td>
</tr>
<tr>
<td>Policy / System Design</td>
<td>●</td>
</tr>
<tr>
<td>Regulation</td>
<td>●</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>●</td>
</tr>
<tr>
<td>Rule of Law</td>
<td></td>
</tr>
<tr>
<td>Transparency</td>
<td>○</td>
</tr>
<tr>
<td>Vision / Direction</td>
<td>●</td>
</tr>
</tbody>
</table>

Key:
- ● indicates the governance element is identified as an discrete element
- ○ indicates the governance element is mentioned in context of other elements
Table 3.
Illustration of application of framework: Considering the determinants for unauthorized health worker absenteeism in public facilities
<table>
<thead>
<tr>
<th>Participation &amp; Consensus Orientation</th>
<th>Strategic Vision &amp; System Design</th>
<th>Addressing Corruption</th>
<th>Being Transparent</th>
<th>Being Accountable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low participation from health workers in setting appropriate salary scales</td>
<td>The system does not allow for incentives to be provided for working in less attractive areas; Salary increases not based on performance</td>
<td>“Ghost” workers continually receive payments and are not identified by the system</td>
<td>Transparent information on salary scales and overtime payments is not available to staff</td>
<td>Ministry of Finance is not held to account when salary or bonus payments are late</td>
</tr>
<tr>
<td>Few ways of including community in health facility boards which provide oversight or advice to management.</td>
<td>No overtime payments structured in; Lack of performance appraisals; Distribution of staff is not based on service population making some environments more stressful</td>
<td>Inability to replace ghost workers</td>
<td>A list of staff who are supposed to be on call or at work is not available to the public</td>
<td>Staff are not held to account when absent</td>
</tr>
<tr>
<td>Information on how community can participate in human resource decisions is not clear</td>
<td>The design of the system does not require that data are regularly collected on staff attendance and transmitted to the district or above</td>
<td>Information on absenteeism is altered at health facility before it is transmitted, therefore hiding the problem</td>
<td>Information on staff attendance is not transferred to the authorities</td>
<td>No one is accountable for ensuring that regular, transparent data on staff attendance is collected and turned into information; Lack of information on sanctions options available to</td>
</tr>
<tr>
<td></td>
<td>Medicine delivery system is poorly designed leading to a lack of resources at health facility which make working environments less attractive as there are fewer resources available to staff.</td>
<td>Absent staff may be taking publicly funded resources with them to sell in the private sector thus increasing incentive to be absent</td>
<td>Knowledge on future stock and flow is not transparent which could reduce the motivation for health staff to be present</td>
<td>No one is held accountable if medicines go missing</td>
</tr>
<tr>
<td>Limited channels (such as health boards) for community or health workers to participate and have their voices heard</td>
<td>System not designed to include sanctions that can be placed on health worker by management unit thereby reducing the ability to hold absent staff accountable</td>
<td>Lack of supervision to ensure that health workers are present</td>
<td>Decisions made by health facility boards or management unit on hiring, promotions and firing are not made available to community</td>
<td>Lack of enforcement options to hold absent staff accountable at the community or district level when staff are absent</td>
</tr>
</tbody>
</table>
Figure 1

- Governance
- Medicines and Technologies
- Information
- Human Resources
- Financing
- Service Delivery