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**District governance and improved maternal, neonatal and child health in  
South Africa: pathways of change**

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# District governance and improved maternal, neonatal and child health in South Africa: pathways of change

## Abstract

District-level initiatives to improve maternal, neonatal and child health (MNCH) generally do not take governance as their primary lens on health system strengthening. This paper is a case study of a district and sub-district governance mechanism, the Monitoring and Response Unit (MRU), which aimed to improve MNCH outcomes in two districts of South Africa. The MRU was introduced as a decision-making and accountability structure, constituted of a “triangle” of managers, clinicians and information officers. An independent evaluation of the MRU initiative was conducted, three years after establishment, involving interviews with 89 district actors. Interviewees reported extensive changes in the scope, quality and organization of MNCH services, attributing these to the introduction of the MRU and enhanced support from district clinicians. We describe both the formal and informal aspects of the MRU as a governance mechanism, and then consider the pathways through which the MRU plausibly acted as a catalyst for change, using the institutional constructs of credible commitment, coordination and cooperation. In particular, the MRU promoted the formation of non-hierarchical collaborative networks; improved coordination between community, PHC and hospital services; and shaped collective sense-making in positive ways. We conclude that innovations in governance could add significant value to district health system strengthening for improved MNCH. However, this requires a shift in focus from strengthening the front-line of service delivery, to change at the meso-level of sub-district and district decision-making; and from purely technical, data-driven to more holistic approaches that engage collective mindsets, widen participation in decision-making and nurture political leadership skills.

Key words: governance; district health system; maternal, neonatal and child health; leadership; coordination; credible commitment; collective sense-making.

## Background and rationale

The district health system is a key interlocutor between national policy and guidance and implementation at the frontline of many health systems, and is often the most decentralized level of governance and management in health systems. There has been long standing interest in the roles, decision-making power and required capacities of the district health system.<sup>1</sup> In recent years, the district has also become the unit of intervention and strengthening for improving the quality and outcomes of maternal, neonatal and child health (MNCH) care. District-based methodologies addressing MNCH include data-driven “bottleneck analyses”, developed and popularized by UNICEF;<sup>2,3</sup> formal district planning;<sup>4,5</sup> quality improvement cycles;<sup>6</sup> participatory action research;<sup>7</sup> mentoring and coaching;<sup>8</sup> citizen score cards and other forms of social accountability;<sup>9</sup> or some combination of these.<sup>3,10,11</sup> Initiatives to strengthen the district health system using these methodologies vary in their entry points and the extent of additional resources they mobilize, but all are fundamentally concerned with how to galvanize existing district players and improve the efficiency of resource use. Although they address aspects of governance, the approaches described above do not take governance as their starting point or primary lens on district health system strengthening.<sup>12</sup>

In broad terms, governance can be defined “as the collective actions and measures adopted by a group of people to achieve common goals.”<sup>13</sup> These actions and measures occur “within a given set of formal and informal rules that shape and are shaped by power.”<sup>14</sup> Formal rules of governance include the hierarchical “oversight and guidance” functions and internal and external accountability mechanisms established through ministries of health,<sup>15</sup> interfacing with collaborative modes of “decision-making and meaning-making undertaken by multiple health policy and system actors.”<sup>16</sup> The significant role of health system governance as a driver of MNCH quality and outcomes is receiving growing recognition globally.<sup>17,18</sup>

However, there is a gap between the broad and abstract conceptualizations of governance outlined in the definitions above and their practical meanings for local health systems strengthening.

This paper reports on qualitative research conducted in two districts (population 1.1 and 0.7 million, respectively) from two different provinces of South Africa, which introduced a new district and sub-district governance mechanism, the Monitoring and Response Unit (MRU), with the aim of improving MNCH outcomes. These two districts were targeted for support because of their high levels of MNCH mortality, regarded as impeding South Africa's achievement of the Millennium Development Goals (MDGs). Although the MRU initiative was not established as a research project, anecdotal evidence of successes prompted an independent, retrospective evaluation, three years after it was first introduced.

Through a case study of the MRU, this paper seeks to shed light on the value and potential of a governance lens on district health system strengthening for improved health outcomes. The paper begins by describing the MRU and associated processes, and the service delivery improvements attributed to it by district players. Using the typology of *credible commitment, coordination, and cooperation* proposed in the World Development Report 2017: Governance and the Law (hereafter referred to as WDR 2017),<sup>14</sup> we then discuss the pathways through which the MRU as a governance mechanism plausibly influenced MNCH service delivery improvements. We conclude by outlining the implications of the findings for integrating a governance perspective into district health system strengthening for improved health outcomes.

## *Setting*

The two districts are situated in Mpumalanga and Limpopo Provinces, in the North East of South Africa. They are rural districts, consisting of a mix of small towns, farms and mining areas. The public sector is the main provider of health care through a network of district-managed community-based services (referred to as Ward Based Outreach Teams), primary health care and district hospitals and provincially managed regional hospitals (Table 1).

[Table 1 near here]

In 2013, the national Department of Health singled out these particular districts as having above average levels of under-five (Districts 1 & 2) and maternal (District 2) mortality. A recently retired senior health system manager, who had steered health programs in another province, was appointed to support the two districts. From 2014 onwards, he made monthly visits to the districts, scaling down after three years to visits every second month. This facilitator interfaced with a range of other district-level initiatives and players, including a project introducing quality improvement tools and methodologies into the primary health care system; MNCH District Clinical Specialist Teams (DCSTs), introduced from 2012 onwards; and a more long-standing infrastructure of district program and general managers.

By the time of the evaluation (2017) fairly steep declines in cause-specific (most notably for severe acute malnutrition) under-5 child deaths had been recorded in the routine information system of the two districts, and the number of maternal deaths had halved in District 2 (from 34 in 2013 to 17 in 2016) (discussed in more detail in<sup>19</sup>). Against background secular trends of declining mortality, it is hard to attribute changes in the two districts to any specific intervention. Nevertheless, the tangible experience of fewer deaths formed an important element in narratives of change and attribution amongst district players.

## Methods

A descriptive, qualitative case study of the MRU was conducted in the two districts. In each district, two sub-districts, representing the range of buy-in to the MRU, based on the subjective judgements of district managers, were selected as embedded units of study (total four sub-districts). The four sub-districts contained a total of six hospitals, each with surrounding primary health care and community-based services (hereafter referred to collectively as a “sub-unit”).

Data collection began with a review of documentation, meetings and interviews with the designer of the MRU initiative and observations of district and sub-district MRU meetings (nine in total). Over a period of two weeks (in April 2017), the research team visited the two districts (including the six sub-units) and interviewed a wide cross-section of involved, affected and influential actors. The interviews were guided by an initial program model, developed on the basis of project documents and a first round of interviews. The interviews combined considerations of context, intervention design (including values and principles), actors, framing and communication strategies, coordination and roll out processes and outcomes. A total of 89 interviews was conducted by the research team, on average around 11 interviews per sub-unit and district office (Table 2). Interviews were tape recorded (where consenting), transcribed and entered into qualitative analysis software (Atlas ti). The research team developed a common code list based on a sample of transcripts and the initial program model, then coded all the interviews in a joint Atlas-ti project.

[Table 2 near here]

Following the case study methodology,<sup>20</sup> the six sub-units and two districts were each analyzed as a unit, triangulating findings from the observations (recorded in detailed notes)

and interviews. The approach to analysis was an abductive one,<sup>21</sup> developing lines of explanation that built on the initial themes in an iterative and interactive process within the research team. The overall evaluation findings were documented in a technical report that included analysis of trends in routine data.<sup>19</sup> This report was circulated and validated in report back meetings held in each of the districts. In a second phase of analysis the role of governance was specifically explored in more depth by the lead author (HS), with further immersion, coding and categorization of data based on the analytic framework outlined in the WDR 2017.

The research received ethical approval from the University of the Western Cape's Biomedical Research Ethics Committee and from the respective Provincial Research Committees. All interviews were conducted following signed, informed consent. In attributing quotes from interviews, we have sought to be sufficiently specific to contextualize the quote, while preserving the anonymity of respondents.

### *Analytic framework*

Drawing on the definitions and framework outlined in the introduction, the MRU as a governance mechanism is considered to have both formal (hardware) and informal (software) components. The formal component refers to the MRU as a decision-making and accountability structure and its associated processes such as real-time death reporting. The informal component is how the MRU engaged the norms, relationships and collective sense-making<sup>22</sup> that shape decision- and meaning-making (also referred to as “everyday governance”<sup>16</sup>). Based on the WDR 2017 framework,<sup>14</sup> a district governance innovation such as the MRU achieves changes in service delivery when it is perceived to be credible (referred to as “credible commitment”), facilitates coordinated action, and enlists the cooperation of health system actors. Credible commitment can involve either a “credible threat” (the

imperative to respond) or a “credible promise” (when the mechanism is seen to offer a plausible theory of change and add value over time).<sup>14</sup> In the context of a district health system and MNCH, the key interfaces for coordinated action are between professionals within facility teams, and across the levels of the local system, from community to district. Cooperation entails the buy-in and willingness of a wide range of frontline actors to engage, going beyond superficial compliance. These institutions are embedded in hierarchical, professional, gender and other power relationships. The relationships between elements are represented in Figure 1. Bi-directional arrows represent two-way relationships, for example, as mortality declines, perceived credible commitment rises, strengthening cooperation and consolidating the governance mechanism.

[Figure 1 near here]

## **Findings**

### ***Description of the MRU initiative***

The formal features of the MRU were relatively straightforward: a monthly meeting at facility/sub-district and district levels whose purpose was to define and implement priority actions for achieving the MDGs and national targets for MNCH mortality. The MRU was constituted of the “triangle” of managers (“drivers”), clinicians (“experts”) and information officers (“navigators”), spanning community, primary health care (PHC), hospital and district levels. MRU meetings followed a standard agenda of reporting, analysis of and response to maternal, neonatal and child deaths, involving indicator dashboards, planning tools, and the deployment of evidence-based guidelines and strategies.

Prior to MRU meetings, PHC and hospital ward managers were tasked with compiling a joint report of routine indicators, linking preventive actions such as immunization and antenatal

clinic attendance (so called “thrive” indicators) with hospital level admissions and deaths (so called “survive” indicators).

Associated with the MRU was a system of 24-hour reporting and 48-hour review of maternal, perinatal and under-5 deaths to district program managers and members of the District Clinical Specialist Teams, who then provided support (training, problem solving, clinical support etc.) to frontline players in implementing jointly agreed solutions. This system sought to improve the performance of pre-existing forms of maternal, perinatal and child death auditing, by adding a clear line of district accounting and response, described as the “4R’s”: Report, Review, Record, Respond. As indicated by one of the DCST clinicians “the difference [with the MRU] is we need to respond to all those deaths that we have reviewed and recorded,” which had not always been the case with prior audit processes. It was envisaged that, ultimately, the MRU would become an outcome-oriented planning and review forum integrated into core district governance processes.

In project documents, the principles underpinning the MRU made reference to the PHC approach and the district health system and “ensuring comprehensiveness, a systems approach, and leadership and governance.”<sup>23</sup> A specific additional principle was that no additional resources would be mobilized and that the MRU initiative would work entirely through existing players and resources in the two districts.<sup>a</sup> Building collaborations with existing actors in the district health systems was thus key to the realization of the MRU. In this regard, the facilitator deliberately sought out “informal coalitions with individuals or groups who welcome innovation and change for quality improvement”<sup>23</sup> amongst both senior and middle management layers. The initiative relied heavily on mobilizing the District Clinical Specialist Teams and program managers to steer and implement collectively agreed upon strategies for improving MNCH services. Also key were nursing managers in the

districts, hospital and PHC services and the dietitians who formed a core of stable professional cadres, in the face of a high turnover of doctors and political appointees at more senior management levels. The MRU offered new spaces of decision-making, participation and recognition for these players. Dietitians, for example, emerged as the key leaders of the response to malnutrition, authorized through the MRU to engage and lead the team response. Similarly, as related by a Ward Based Outreach Team (WBOT) coordinator: “... through this, now suddenly they recognize WBOTs. They see what they are really used, [for] what they can really be used for.”

At a formal level, the MRU exemplified a hierarchical mode of governance:

Starting at the district level, the driver is the district manager, and then the rest of us follow. At the sub-district level at the hospital the CEO is the driver, and all other units will follow. And then from PHC level, the PHC manager of that particular sub-district is their driver, and then the navigators will follow. (District Dietitian)

However, at an informal level the “real” drivers were often the middle managers at district and sub-district levels (Figure 2), functioning in a more networked mode of governance.

[Figure 2 near here]

During the course of the visits to the districts, sub-districts and facilities, the facilitator was also actively engaged in a process of communication and collective sense-making, building consensus on firstly, the problem to be prioritized (high MNCH mortality) and secondly, a set of appropriate responses to the identified problem. The latter entailed presenting the evidence-base on interventions for MNCH, drawing attention to existing guidelines, and packaging formal information in ways that promoted system thinking and enabled individual players to locate their place in the whole. A range of metaphors, images (“no child will walk

alone”) and shorthand expressions (such as the “4R’s”), that represented the essence of the MRU approach, were also deployed. The most prominent of these was the “open tap analogy,” a public health metaphor for the links between prevention (closing the tap) and cure (mopping the floor). This formed the essential rationale for collaboration between PHC and hospitals, and was frequently invoked in interviews:

We are using that open tap analogy everywhere now... I like it very much because it clearly describes that to say, as long as ...you haven't identified the root cause and make sure that you don't temporarily put a block but close the tap...” (PHC manager)

### ***Changes in service delivery***

Across all the settings, extensive changes in the scope, quality and organization of MNCH services were attributed to the introduction of the MRU, in tandem with the support of the DCSTs and program managers. The tangible changes experienced by implementing actors included enhanced screening in community and PHC settings, allowing early identification of problems in women and children; better referral systems across levels of care and between clinicians in hospitals; improved clinical practices within hospitals; and better continuity of care. Examples of each are provided in Table 3.

[Table 3 near here]

These various changes were associated with a new culture of engagement with clinical guidelines and the intensification of in-service “drills,” providing the software mechanisms which brought the pre-existing hardware strategies to life:

It has also sensitized people about using the guidelines. People had guidelines but they were kept in the drawers, they were kept in the offices, locked up there... it has cultivated a culture of reading, reading the guidelines and discussing the guidelines. (DCST member)

Especially these things of [ESMOE] fire-drills,<sup>b</sup> because nobody cared [before] whether we did it or not. (Maternity ward manager)

Managers and providers were described, and saw themselves, as more accountable than before:

The MRU has brought about ownership and accountability on the part of the managers and also the health professionals at facility level. Because even though we are not making it a whip to whip people, we [hold] people accountable. (District program manager)

You start thinking now... if I am going to report in front of a group of people, why the baby died, I want to make sure that when I am on duty that baby is not going to die because I don't want to go in the report. (Pediatric ward manager)

### ***Pathways of change***

While important on their own, new structures and reporting systems do not guarantee changes in practice. Using the institutional constructs of credible commitment, coordination and cooperation, we highlight the significance of the MRU as an intervention in system software, and the pathways through which it was apparently able to shape new organizational practices and mindsets and direct the actions of considerable numbers of players.

It is important to note that while narratives of positive change were widespread and frequently attributed to the MRU, buy-in and adoption were by no means universal. Resistance was common in the inception stages of MRU, but persisted in several local areas. In the context of a plethora of similar initiatives targeting frontline providers<sup>c</sup> the MRU represented an additional demand from above. As described by one middle manager:

At first when it was introduced, people used to see it as a lot of work that is going to be piled on us again, at first, they were like that but, as time goes by, others tend to understand that oh, this thing is here to help us. (Maternity ward manager)

Another manager, who was required to participate in the MRU processes, but whose specific portfolio had not been flagged as problematic by the national Department, saw the MRU as duplicating existing auditing systems, indicating that “people are just doing it for compliance.” (District program manager)

### *Credible commitment*

As indicated, the two districts were amongst a handful singled out by the national Department of Health as poor performers in MNCH. Interviewees, from senior to frontline, were clear on this as the core problem:

We were shown the letter that was from Dr X [senior national policy maker] showing that the national is not happy about us because we had a lot of particularly child death caused by SAM, malnutrition and diarrhea. (PHC manager, District 1)

...there was a year when we had 33 or 34 [maternal deaths], where we were put under those three districts that were not doing well. (District program manager, District 2)

The MRU had the imprimatur of national authority, and as explained by one person, “when people say national is coming, people want to do things properly.” (Dietitian) Moreover, the MRU was introduced by a facilitator, who not only represented “national” but was also recognized as an authority in district management. As one maternity ward manager put it “if they say ‘Dr X [facilitator] is coming’ everybody is on their toes [laughs].”

Interviewees frequently referenced the MDGs as the basis for the judgments on their (poor) performance. The message from the national Department that the two districts were holding back the country in the eyes of the world created an imperative to respond. Such threats to self-image may force attention to a problem and compliance with the response, but as the accounts of resistance above suggest, do not result in true engagement. With time, the MRU was also associated with “credible promises,” experiences of empowerment, which were key to its adoption. As related by an information manager who participated in the MRU, “those who form part of this are empowered, because now you can see everybody is improving, even in their daily jobs they are active.”

Apart from the changes in care practices described in the previous section, the most frequently cited effects of the MRU processes were the new systems of meaning they offered. Numerous examples of these were provided in the interviews (detailed in Table 4). For PHC players in particular, the multi-level team work promoted a systems perspective on problems, showing the link between their preventive actions and outcomes in the hospital. Routine information was rendered meaningful by a better understanding of the reasoning behind indicators, by examining patterns over time, and by connecting different kinds of formal and informal information through dialogue. Finally, the clarity of expectations and specific focus of the MRU enhanced players’ perceptions of self-efficacy. Together, these forms of collective sense-making facilitated the development of critical thinking skills, empowering participants to think of solutions to problems within their own context.

[Table 4 near here]

In addition to its sense-making role, the MRU offered a mechanism to orient senior clinicians on public health and fulfil their governance roles:

As a clinician I know how to deal with clinical issues, I don't really have a good understanding of public health issues (DCST member)

Because I am a clinician, I am not a manager, I was also learning about governance and what governance means because that is one of my, my briefs. I learned the whole idea of the driving mechanism, the clinical expert, the navigator. (DCST member)

The new forms of problem solving and active support from district program managers and DCSTs in turn led to greater willingness to report (and account for) deaths:

I think people were hiding some of whatever is happening, but now people are open because they see that there is support.” (District program manager)

As deaths began to decline, the MRU became associated with narratives of success (a credible promise), reinforcing the strategy.

Fewer deaths is very powerful (Hospital manager)

They never thought that as a team they can do more. So now because they are seeing a lot of changes... the team work is even stronger (Dietitian)

### *Coordination*

The structures and processes of the MRU were specifically designed to enable coordinated action across key interfaces. These interfaces were between the PHC system players and district hospitals at sub-district level, between district and sub-district managers, between units within hospitals, and between clinicians (experts) and managers (drivers). The new relationships and common collective visions for MNCH forged across these interfaces were generally regarded as the most important organizational impacts of the MRU.

...what I've found the system able to do was to break down those silos and to cross-pollinate across the whole district, and I find that extremely helpful. (DCST member)

Before, it was like two entities, the hospital and the clinics. But I don't know what forces or whatever it has combined us now, we are not two entities anymore. (PHC manager)

These new relationships facilitated more open day-to-day communication:

There is a lot more open communication. If there is an ANC that you must refer now it is high risk, you can phone up to the maternity ward. (PHC manager)

It is easy to pick up a phone and phone them and ask the sister to tell me about this patient. Most likely they will be able to tell you about the patient because they draw files. So we have a very good working relationship with the guys outside especially the PHCs. (Pediatric ward manager)

Coordinated action was driven by shared goals, recognition of inter-dependence, and greater shared responsibility:

We all share the same goal and it's kind of motivating. (Dietitian)

It is like a link, everyone is linking with the other so everyone is playing his or her role, that's what I can say... We are working like this because the one can't survive without the other.  
(Hospital manager)

### *Cooperation*

In order to succeed, the MRU required ownership and cooperation from a wide variety of players in the districts' health services. The facilitator also sought to enlist the participation of the regional hospitals (who were not accountable to the district), external partners supporting the districts and officers from the local social security agency.

While in general terms, there was extensive evidence that the MRU was “owned” by these players, the two districts differed in the extent of cooperation with the MRU processes. In District 1, there had been three acting District Directors since the inception of the MRU, and at the time of the interviews, the district management team had not met formally for six months. Although the MRU was written into job descriptions of hospital CEOs and PHC managers, there was limited active oversight of sub-district MRUs by district managers. However, active support from one senior member within the district management team, and from the DCST and program managers, ensured a sufficient degree of cooperation for the district MRU to meet regularly and be considered effective. In contrast, District 2 had a permanently appointed District Director who chaired MRU meetings and took active interest in its functioning at sub-district level. In this district, the strategy was supported at facility level by a student-training partnership with a university in a neighboring province. Further, the regional hospital had also taken the initiative to convene its own MRU meetings and specialist clinicians participated actively in district MRU meetings and outreach support. In sum, there was more evidence of cooperation with the MRU as a strategy in District 2 than in District 1, even if in the latter the MRU had enthusiastic proponents who ensured its ongoing functioning.

These variable dynamics were also observed at sub-district level. In both districts, the most impactful MRUs were those where the CEO and senior medical and nursing managers (hospital and PHC) together steered its functioning, and where formal and informal leadership systems were aligned. In one sub-district (in District 1), the chief executive officer (CEO) indicated “one would not hesitate to say that this [MRU] was one of the best initiatives”, while the medical manager believed it was “an important mechanism that every district needs.” However, even where the CEOs and medical managers were not active players, the MRU was able to meet regularly and make a positive contribution if a stable core

of middle managers in both hospital and PHC services saw its value. In the presence of formal authorization of the MRU from above, locally specific, informal coalitions, led in large part by senior nursing managers, were able to anchor and sustain implementation of the MRU. In the sub-units where the MRU did not convene (except when visited by the external facilitator), this was usually due to a gap in leadership and support from either the hospital or PHC services, preventing the establishment of the informal coalition of actors. Interestingly, in all the district hospitals visited, the rank and file medical clinicians (who were neither CEOs nor medical managers) did not appear to be active players in the MRU as a governance mechanism, even if the “responses” implemented through the DCSTs engaged them directly.

### **Discussion and conclusions**

Through the case of the MRU, this paper aims to fill a gap in understanding on the potential of a governance lens on district health system strengthening for improved health outcomes. Governance considers the structures and processes of decision-making and participation, as well as the underlying rules—both formal and informal—which shape action (or inaction). It is concerned with how individuals engage with each other and how they function collectively. Governance interventions achieve impacts by offering something new (credible commitment), facilitating coordination, and mobilizing the cooperation of actors. In the case of the MRU, the latter was particularly important, as no new resources besides an external facilitator were introduced.

The pathways of change examined in this analysis have resonance with established frameworks and theories of program implementation. For example, the constructs of coherence, collective action and cognitive participation in the Normalization Process Theory describe well the change processes in the two districts;<sup>24</sup> networks and leadership are part of the Consolidated Framework for Implementation Research.<sup>25</sup> Moreover, the specific

activities of the MRU, such as guidelines and mortality reviews, form a standard menu of MNCH program strengthening interventions.

A governance perspective adds to these existing framings of district health system strengthening in two ways. Firstly, by shifting the focus from front-line clinical processes, training and mentoring, to change at the meso-level of district and sub-district decision-making. This meso-level is often regarded as the setting or context for interventions at lower levels, rather than the locus of intervention itself. Secondly, the MRU, as a governance intervention, is also different from other data-driven, rational planning approaches to district health system strengthening in recognizing the centrality of the informal or software dimensions of governance. This was evident in the extensive efforts made to shape collective thinking and action on MNCH in the two districts, and in the interviewee accounts of empowered professional identities. These were linked to new spaces and opportunities for participation and decision-making, and the encouragement of informal coalitions of public-interested players. The specific design features of the MRU are thus less important than the nature of practices associated with it.

In these regards, the MRU shares features of a pediatric clinical information network introduced in Kenyan Hospitals,<sup>26,27</sup> which produced similar striking narratives of change and empowerment. As with the MRU, the activities of the Kenyan network involved a cluster of evidence-based guidelines, communication strategies, network building and monitoring activities, led by a facilitator. In a context of “frustration with the wider Kenyan health system”, the network provided “an oasis of QI [quality improvement] and motivation,”<sup>27</sup> Theorizing the manner in which the network achieved its effects, McGivern et al. draw on philosopher Michel Foucault, describing the activities of the network as a form of “governmentality”, that is, creating a “mentality of governance.” The network shaped the

mindsets of participants through the guiding and supporting “pastoral practices” of a facilitator, rather than through hierarchical governance mechanisms. The authors conclude that “lateral accountability and governance mechanisms, associated with pastoral practices influencing professional status, may provide a means for motivating health care improvement in LMICs.” However, “pastoral practices” are not the only pathway through which to trigger new forms of sense-making, collective action and accountability in local health systems. Less directive facilitation styles premised on co-production, flexibility and responsiveness may also achieve the same goals.<sup>22,28</sup>

The analysis presented in this paper offers a number of general lessons for integrating a governance lens into district health system strengthening for MNCH or other health outcomes, in South Africa and elsewhere:

- Firstly, governance innovations should aim to create spaces of deliberation and decision making that widen participation and distribute leadership. With respect to health outcomes, these spaces should specifically seek to bring together relevant clinicians (including cadres other than doctors) and line managers, and top and middle management.
- Secondly, the main driver of change is collective action. Governance for improved health outcomes should aim to overcome the natural tendency towards siloed functioning between community-based services, PHC and district hospitals, as well as between professionals in teams.
- Thirdly, formal strategies need to be balanced with those that understand and engage the informal. This would include deliberately creating spaces for horizontal networks and collaborations to emerge alongside hierarchical modes of governance; mobilizing tacit knowledge for problem-solving; deploying metaphors and storytelling with formal data-driven analyses; and combining direction with flexible local responses.

- Finally, governance interventions should seek to distribute roles, promote system thinking and identify concrete opportunities for positive change and experiences of success in complex systems.

These lessons on governance all imply a reordering of power relations and a greater sharing of power. As pointed out in the WDR 2017<sup>14</sup> “constraining the power of those to whom authority is delegated or sharing power in decision-making bodies” establishes credible commitment. Governance is thus a political process, and may be one reason why an explicit governance lens is not adopted in favor of more technical approaches to district health system strengthening.<sup>17</sup> However, if there is greater acceptance of the need to address power imbalances as part of governance innovations, this opens the way to nurturing the distributed leadership skills which enable actors to navigate the complex, “everyday politics of the health system.”<sup>29</sup>

### ***Limitations***

The MRU was a governance strategy centered on professional and managerial relationships and internal accountability within a public health system. This analysis has not addressed the role of community participation and oversight, clearly a gap when considering system strengthening from a governance perspective, and also pointing to a wider weakness in South Africa’s health system. At the same time, it would not have been possible to adequately address the complex terrain of external or social accountability within the scope of this analysis.<sup>30,31,32</sup> Similarly, the MRU was a bottom-up initiative and was not articulated with equivalent reorganizations at provincial and national levels, which would be likely conditions for achieving significant and sustained systems level impact. In addition, the impact of a new mechanism such as the MRU in low performing districts, with tangible opportunities for improvement, may ironically be easier than in better performing districts. Finally, the study

remains at a largely descriptive level, and while general lessons and plausible pathways of change are put forward, more robust comparative and/or prospective study designs would be required to test these hypotheses.

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## Notes

- a. This is contrast to the direct investments in HIV related programs, particularly in one of the two districts, targeted as a high HIV burden district, and where a PEPFAR (Presidential Emergency Fund for AIDS Relief) partner was employing 101 staff to support HIV service delivery in this district.
- b. Essential Steps in the Management of Obstetric Emergencies
- c. We counted 15 separate routine planning and reporting demands and/or initiatives at the time of the study

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Table 1: Profile of the two districts studied

	District 1	District 2
Population	0.7 million	1.1 million
Population density	15.5 people/km <sup>2</sup>	36.4 people/km <sup>2</sup>
% dependent on the public sector for health care	92.3%	86.5%
Sub-districts (sampled)	5 (2)	7 (2)
Public health sector facilities (sampled)	1 Regional Hospital 7 District Hospitals (3) 64 PHC facilities 14 Ward Based Outreach Teams	1 Regional Hospital 8 District Hospitals (3) 85 PHC facilities 57 Ward Based Outreach Teams
Per capita annual PHC expenditure in public health system (2016/17)	R837 (US\$58)	R940 (US\$65)
Key health system contextual factors	High turnover of senior managers Low integration of regional hospital Poorly developed PHC outreach	District Manager in place since 2016 Pilot site for National Health Insurance reforms which provided additional support and resources
District Clinical Specialist Team (at time of evaluation)	6/6 posts filled	2/6 posts filled

Sources: <sup>19,33,34</sup>

Table 2: Profile of interviewees

Category		n
Place	District 1	44
	District 2	39
	Cross district	6
	Total	89
Category	District-level managers (clinical, programmatic, line)	23
	Hospital managers (senior and mid-level)	36
	Primary health care managers	10
	Community-based service providers	5
	National stakeholders (incl. facilitators)	6
	Other*	9
	Total	89

\*includes: emergency services personnel, social security agency, social workers, non-governmental partner

Table 3: Examples of service delivery changes

Service delivery change	Quote
Enhanced screening in community and PHC settings, with early identification of problems in women and children	<p>“Most of the time we don’t wake up today being a SAM. Which means this child has been missed at a certain level and we are the culprit, at primary health care, be it at a mobile, be it at a clinic, because this child has been seen there... So, through this program, we’re able to train them, able to make them be vigilant, to identify these types of children so that they are able to be sent to the hospital as quickly as possible for further management.” (PHC manager)</p>
Better referral systems across levels of care and between players within hospitals	<p>“The PHC were not referring the patient to the hospital even if the patient’s BP was increasing. But then now, we receive a call to say “I’ve got this problem, what is it that I must do?” They are open, they are able to call us and then we’ll give them advice or tell them to refer the patient to the hospital, or just to phone ... for advice.” (District program manager)</p> <p>“Like referring malnourished children to nutrition people, dietitians and nutritionists. They were not doing that before. They were only managing those cases in the wards and they were only referring to the dietitian upon discharge.” (Dietitian)</p>
Improved clinical practices within health facilities	<p>“For example, KMC [kangaroo mother care] was not functional, he explained to us its importance, we were not familiar. He took us step by step and now the baby room is the KMC room. We had a 650gram baby survive and be discharged at 1.9kg. Can you believe we did that?” (Maternity ward manager)</p> <p>“In casualty they were trained... They know that from the ten steps [of management of severe acute malnutrition] they have to feed immediately. They shouldn’t wait for the dietitian because sometimes they admit over the weekends and the dietitians are not working over the weekends. So, there is always a therapeutic feed in casualty. From casualty they’ll admit immediately in the ward so that they implement all those steps.” (Dietitian)</p>
Better continuity of care	<p>“It is not just about maternity, now we also work with the CHIP [child audit system] because we see the linkages. If there are gaps in our care, we can still address them at the next step in paed. We ... see what the</p>

	<p>gaps are and how to work as a team to address them even if it is not just in our ward. The PHC also present their work, the number of patients seen before 20 weeks, who was tested, what their status is, who is referred as high risk.” (Maternity ward manager)</p>
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Table 4: Forms of collective sense-making in the MRU

New forms of sense-making	Quote
Connecting prevention and care/cure	<p>“If the diarrhea has suddenly peaked, if the pediatric sister says she has admitted 10 people then you go back to the community, you look where specifically they come from, what is happening there, you go back to the environmental people...” (PHC manager)</p>
	<p>“With MRU, the part that I like most, it’s when we discuss about the reducing of the deaths. How can we reduce the death of mothers and how can we prevent it, and what role can we make and the challenges... because they said it starts from grassroot level before they reach the hospital, so we must prevent it early as you can.” (Ward Based Outreach Team (WBOTs) manager)</p>
Making information meaningful	<p>“It made sense when Dr. X [facilitator] was explaining the reasoning behind the information because sometimes you can just capture the information but when you talk about the information it was amazing. So, I think that is one of his roles to make you understand that this is not just numbers, these numbers are saying something. So, I think that was wonderful.” (Dietitian)</p>
	<p>“If you come to these things [MRU] you see a pattern as well. Sometimes in the beginning of winter we have more dehydration cases and then close to December it picks up again and we talk about those things and we ask the community what is happening...” (Dietitian)</p>
	<p>“The environmental people from the municipality, they will come and say there is a water problem there ... and then you should expect more diarrhea or whatever... If the sister presents at the perinatal meeting her stats from the pediatric ward, saying there was suddenly 20 diarrhea [cases], then you link it back and you remember.” (PHC manager)</p>
	<p>“We sit together and then they say okay: “breastfeeding, what happened in the hospital, what happened in the clinic?” So, everyone is answering. It was reported on paper but it wasn’t verbalized. So, by verbalizing now you can immediately say “oh sister, you say this, but what about that?” Because now you are starting to engage and I think that makes the difference... it is interactive.” (Pediatric ward manager)</p>
Providing focus	<p>“For me it’s not additional because it’s part of what we do every day. The</p>

	<p>only thing, it just makes it clearer for us. Like giving a clear route to say, if it's like this- you have to do like this. This is how you are supposed to do things. It's like giving us direction.” (Maternity ward manager)</p>
	<p>“That thing of you sitting there wondering “what actually do they want now?” But now there is a template and they are specific about what they want. All that made it change.” (PHC manager)</p>
	<p>“In the beginning it was a bit overwhelming to get all these different new things, but at the end if you look at it, it gives you structure. It gives you something on paper that you can plan your activities on and that you can give feedback. So, you have accountability immediately and you don't sit with a vast number of things and don't know where to concentrate” (WBOTs manager)</p>

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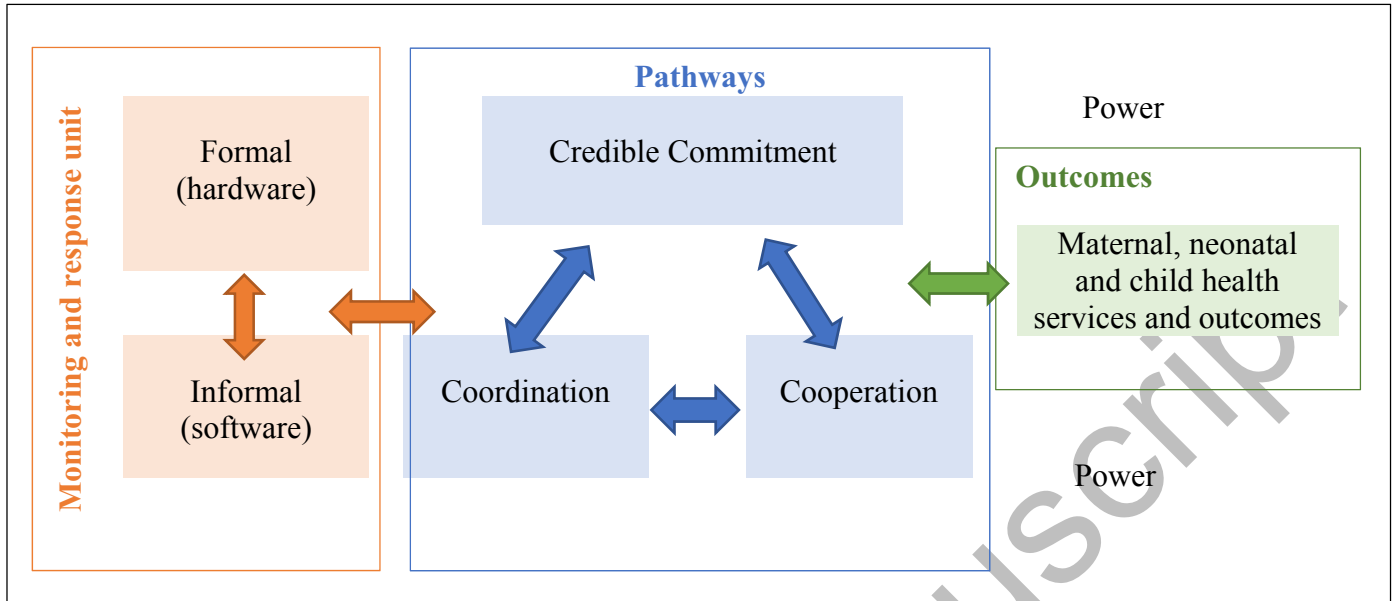


Figure 1: Analytic framework of governance mechanisms, pathways and MNCH outcomes.

Adapted from ref. (14)

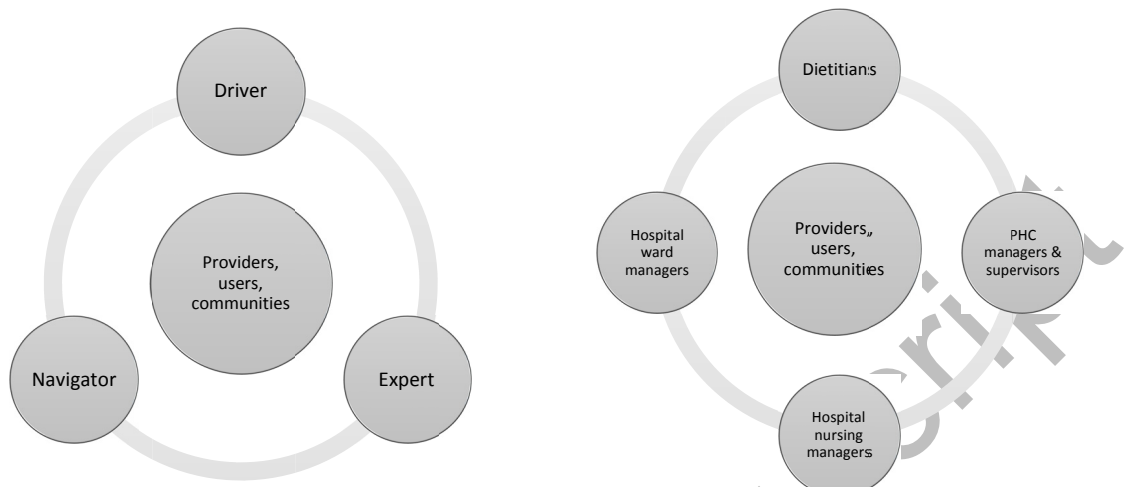


Figure 2: Formal structures and informal alliances in the MRU

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