Title: Decision space for health workforce management in decentralised settings: action research in Uganda

Abstract

The aim of this paper is to improve understanding about how district health managers perceive and use their decision space for human resource management (HRM) and how this compares with national policies and regulatory frameworks governing HRM. The study builds upon work undertaken by PERFORM Research Consortium in Uganda using action-research to strengthen human resources management in the health sector. To assess the decision space that managers have in six areas of HRM (e.g. policy, planning, remuneration and incentives, performance management, education and information) the study compares the roles allocated by Uganda's policy and regulatory frameworks with the actual room for decision-making that district health managers perceive that they have. Results show that in some areas District Health Management Team (DHMT) members make decisions beyond their conferred authority while in others they do not use all the space allocated by policy. DHMT members operate close to the boundaries defined by public policy in planning, remuneration and incentives, policy and performance management. However, they make decisions beyond their conferred authority in the area of information and do not use all the space allocated by policy in the area of education. DHMTs' decision-making capacity to manage their workforce is influenced by their own perceived authority and sometimes it is constrained by decisions made at higher levels. We can conclude that decentralisation, to improve workforce performance, needs to devolve power further down from district authorities onto district health managers. DHMTs need more power and authority to make decisions about their workforce, but also more control over resources to be able to implement these decisions.

Introduction

Health sector performance depends largely on its workforce (Cometto & Campbell 2016; Pierantoni & Garcia 2011; Witter et al. 2016). In decentralized settings, performance management of the workforce depends on the extent of power allotted to local authorities. In most Low and Middle Income Countries (LMICs), District Health Management Teams (DHMTs) are assigned a range of responsibilities for managing workforce performance (Kolehmainen-Aitken 2004).

In his definition, Bossert (1998) refers to decision space as the range of choices allowed by the central level that local managers have in decentralized environments (Bossert 1998). These choices are often defined by laws and regulations (Bossert & Beauvais 2002). From this perspective, decentralization has two faces, the one provided in the formal provisions of the laws and regulations (*"de jure"*) and the operational one that arises from the constructed realities of local managers in a particular context (*"de facto"*) (Bossert & Mitchell 2011).

Decentralization involves organizational changes which affect human resources for health (HRH) and overall health workforce performance (Bonenberger et al. 2014; Franco et al. 2002; Kolehmainen-Aitken 1998; Kolehmainen-Aitken 2004). Although local managers in decentralized health systems may see their decision space expanded (Bonenberger et al. 2014), in practice, there are constraints to effectively using this decision space (Exworthy & Frosini 2008; Seshadri et al. 2016). In LMICs, while local managers wish to adjust their workforce composition and skill-mix to meet the demands at the local level (Solter 1999), decisions made at the national level, such as wage bill allocation or approval for new positions, often constrain their decision space. The degree of authority and decision-making power for human resource management (HRM) devolved to peripheral levels greatly depends on the decentralization strategy adopted by the country and on how it is implemented (Rondinelli & McCullough 1989).

Health sector reforms (HSR) that are focused on decentralization need to explore the extent to which the decision space at local levels has been used to enhance workforce performance. It is important then to understand how much of the decision space conferred *"de jure"* is actually available and used by local managers to make decisions in practice (*"de facto"*) taking into account other processes, institutions or regulations that have a bearing on the local decision-making space (Bonenberger et al. 2016).

Since 1986 Uganda has been gradually implementing decentralization policies through devolution of most government services, including health care provision, to the district level (Kivumbi et al. 2004). In line with the Constitution reform of 1995, the Local Government Act 1997 formally defined the role of the central level agencies as including the supervision of Local Governments, policy formulation, standard-setting and quality assurance (Uganda Legal Information Institute 2016). District Local Councils (DLC) are headed by an elected Chief Administrative Officer (CAO) who deals with the whole district administration. Members drawn from the DLC form the District Health Committee which is the political governing body of the health sector. Health care is headed by the Director of District Health Services (DDHS) assisted by the District Health Management Team (DHMT) which comprises technical officers in charge of the different areas. The DDHS reports to the CAO (Jeppsson 2004).

Within the health sector in Uganda, the degree of devolution of essential functions to district level is considered high as compared to decentralization reforms in other countries. While some areas such as health facility management or community participation are considered to have a narrow local decision space, other important areas such as decisions about sources of revenue, expenditure, user fees or contracting-out services to private providers have a much stronger reliance on local decision power than in other countries (Bossert & Beauvais 2002).

There are gaps in the evidence base with respect to the utilisation of decision space for HRM and its implications for health systems performance. For example, there is need for stronger

evidence on whether shifting decision-making powers from the central level to district authorities translates into more autonomy for DHMTs to manage their workforce, how health managers perceive and utilize decision space within different contexts, and how this process can be supported to improve workforce performance.

This paper is based on the work that PERFORM, a research consortium comprising six academic institutions from Uganda, Ghana, Tanzania, Switzerland and the UK (2), undertook from 2011 to 2015. The PERFORM project focused on strengthening the leadership and management skills of district level managers applying a participatory cyclical Action Research process as a management strengthening intervention to facilitate the development and implementation of work plans to improve workforce performance. Specifically, this paper draws upon one key aspect of the initial situation analysis that is, the perceived decision-making space of the district managers. More information about the PERFORM project is available in the published literature (Mshelia et al. 2013; Mshelia et al. 2016) and on the PERFORM website (www.performconsortium.com). The aim of this paper is to improve understanding about how DHMTs perceive and use their decision space for HRM to improve health workforce performance in decentralised health systems.

Methods

This paper draws upon data gathered and analysed using multiple methods (Green & Thorogood 2004). Its case study approach allows for an in-depth exploration of the context in which the phenomenon under study occurs (Yin 2009) and the behaviours of and relationships among actors and agencies influencing the decision space of managers (Gilson 2012). To identify the effective decision space that members of the DHMT have in HRM, a comparison between what Ugandan public administration provides (*"de jure"*) and what managers actually do (*"de facto"*) was undertaken. The purpose was to get a deeper understanding of the DHMT's perceptions about their authority to act and to reflect on their actual management practice in six areas of HRM. These six areas were adapted from a tool used to assess decentralization of health services

in Africa in another study (Sunderbrink et al. 2003). The six areas are 1) HR policy formulation, implementation and monitoring (policy); 2) HR planning, forecasting, defining job descriptions, recruitment and dismissal, recruiting additional staff and posting (planning); 3) setting remuneration and incentives (remuneration and incentives); 4) performance management and supervision (performance); 5) continuing education and training (education); and 6) HR information (information).

1. Assessment of the "de jure" decision space: Uganda public administration and policy documentary review

To define the "de jure" HRM responsibilities of DHMTs, a review of Uganda's public administration and policy documents focussing on the six HRM areas was conducted. The results were extracted, tabulated and classified using three levels: decisions made at the central level (e.g. Ministry of Health or Civil Service Commission/Health Service Commission); decisions made at district level but not by the DHMT (District Service Commission or Chief Administrative Officer); and decisions made by the DHMT which has full responsibility for a specific area or function.

2. Assessment of the "de facto" decision space: managers' self-assessment

To understand the *"de facto"* decision space, a self-assessment by DHMT members was conducted during the situation analysis phase of the project. Self-assessment has been routinely used to appraise the competency of human resources managers (Yammarino & Atwater 1997). The six HRM areas identified were used as the framework for this assessment. Two dimensions within the *"de facto"* decision space were assessed: perceived authority and reported actual practice in HRM. While the methods used to assess each element are described separately here, results are presented here in an integrated way.

2.1 DHMT self-assessment of perceived authority in human resource management

In each district, DHMTs selected three members to carry out this assessment. They were not given any specific criteria for this selection. The selected members completed a questionnaire. The questionnaire was developed by adapting a tool focusing on the six key HRM areas (Sunderbrink et al. 2003). They scored their perceptions about the level of authority they have in each area by selecting "no authority", "some authority" or "full authority". This information was compiled in a spreadsheet to allow for intra-district, cross-district and overall comparison with the "de jure" decision space. In addition, participants provided some brief comments to each score, which were included in the analysis.

2.2 DHMT self-assessment of reported actual practice in HRM

To allow for a better understanding of the DHMT members' actual practice a focus group discussion (FGD) with the same members who completed the self-assessment questionnaire was carried out in each district (total 3 FGDs). The researchers used the six HRM areas identified to guide the exploration of their actual practices in HRM. Participants were first asked if they carried out each function answering "yes fully", "yes partially" or "no" and then to provide explanations about the processes involved in each area, the consequences or the impact of carrying out these functions on the performance of their respective workforces and any reflections they wanted to add. We were not seeking for consensus across the groups, but encouraged participants to openly discuss and reflect upon their actual practice. However, they tended to provide similar responses. Any differences were noted in the results section. The discussions were digitally recorded following consent by each participant. The recordings were transcribed verbatim and the transcripts analysed using the framework approach (Richie & Spencer 1994) against the six HRM areas.

For the purpose of this paper and to facilitate overall comparison, all the results were re-coded as 1, 2 and 3 (1 assigned to the lowest and 3 the highest score for "perceived authority" and

"perceived level of practice"). Where different functions were analysed within one area, an average was calculated for that area. The three assessments were compiled into a spreadsheet to analyse the different decision spaces defined by the responses to the two self-assessments and by the policy/regulation documentary review (see scoring tables as Supplementary Annexes 1, 2 and 3). Having found that scores for perceived authority and reported actual practice fully coincided it was decided to use only one score for the *"de facto"* results to facilitate its visualization in a radar-chart.

Ethical clearance for this research was obtained from the Ethics Committees at both Liverpool School of Tropical Medicine (Ref. 12.09) and Makerere University School of Public Health (Ref. 162/SS2851.). All participants signed a written consent form before their interviews after having been thoroughly informed about the research. Data were managed, stored, analysed and presented ensuring full confidentiality.

Results

The results are presented against the six HRM areas. We first visually present DHMT's decision making space for HRM using a radar-chart including the "de jure" and the "de facto" decision spaces (see Figure 1). The six HRM areas are then presented in more detail using data from the *"de jure"* decision space documentary review and the managers' self-assessment. A summary of these findings is presented in Table 1.

The scores generated from the perceptions of decision space and reported actual practices of DHMTs members were the same, which suggests that managers make use of all the decision space they perceive to have. However, when comparing both with the *"de jure"* decision space there are some differences. There are three areas (e.g. Policy, Planning, and Performance) where managers seem to make decisions close to the *"de jure"* decision space boundaries. Regarding Information and Remuneration and Incentives, managers seem to make decisions

beyond their *"de jure"* space while in the Education area they seem not to use all the *"de jure"* decision space available. Inter-district variability was found to be negligible in all areas.

Figure 1 here

Table 1 here

1. Health workforce policy formulation, implementation and monitoring

HR policies arise mainly from several central level agencies. Ministry of Public Service is responsible for developing, managing and administering HR policies, management systems and procedures and the structure of the Public Service (Government of Uganda 2016b). Responsibility for HR policy dissemination and implementation is devolved to district authorities through the District Service Commissions (Government of Uganda 2016a). The role of DHMTs in this area as defined by policy is limited to oversight of the implementation of national policies with some rather marginal space for adaptation of these national decisions to the local context (Ministry of Health 2011b). This was confirmed by the results of the self-assessment in which members of the DHMT perceived having very limited authority for HR policy formulation with a relatively wider space for implementation and monitoring. Their contribution is reported to be limited to the involvement of district, sub-district and community representatives at some stages of the policy-making process (mainly through consultations) and to adapt, enforce and monitor the implementation of these policies. Sometimes there are some discrepancies between what is stated in the policy and what is implemented. For example, HR policy assigns Health Centre Level IV management functions to a senior medical officer. However, the shortage of medical staff makes task-shifting necessary, where lower ranking staff are requested to assume these functions.

2. <u>Health workforce planning, forecasting, defining job descriptions, recruitment and dismissal,</u> recruiting additional staff and posting

The Local Governments Act 1997 (Uganda Legal Information Institute 2016) assigns recruitment powers to the District Service Commission (DSC) which is also responsible for appointing, promoting, retiring and disciplining health workers (Ministry of Health 2006). The responsibility of forecasting staff needs at district level lies with the District Service Commission which works closely with the DHMT to assess the expected needs. Job descriptions are centrally developed by the Ministry of Public Service (Ministry of Public Service 2011) and the Health Service Commission (Health Service Commission 2005).

Overall, perceived authority in this area is relatively high. However, there is variability between the specific planning functions. Forecasting HRH needs is perceived to be an important function of the DHMTs. DHMT members identify staffing requirements against the national approved positions (e.g. establishment) and pass that information to the district authorities. However, often that information doesn't translate into new positions as financial constraints limit the capacity of the district or the central service commissions to authorize them. In addition, all new positions need to be sanctioned by the Ministry of Public Service and authorized by the Ministry of Finance.

"We submit [staffing needs] to the HR department of the district and also to the MoH as part of the area we cover for planning every year. We submit the HR plan as well... [] ...we follow up, but the usual answer is that -that's what the wage bill was allocated- so, that is the reason why you have not seen any change as we do not have any resources to improve on the wage bill for the district..." (DHMT member Self-assessment FGD)

The space perceived by managers to develop job descriptions is relatively narrow. While standard job descriptions are developed at the central level (Health Service Commission 2005), DHMTs sometimes adapt them by adding extra functions to meet their specific needs.

Similarly, DHMTs reported having a narrow space to make decisions about recruitment. Their role is limited to sitting on the recruitment panels which suggests that they have some space to

influence decisions. In regard to disciplinary issues there is a committee within the DHMT that investigates cases of misconduct and forwards their recommendations to the DSC. However, in one of the districts, members of the DHMT interviewed were sceptical about their authority to make decisions in this area:

"...much as it may look like we have an input, but in the real life the final decision is not dependent on what DHMT thinks." (DHMT member Self-assessment FGD)

DHMTs reported that they are not allowed to recruit additional staff. District Local Councils can mobilize resources locally but their priorities often do not target new health workers which is perceived by members of the DHMT as being politically driven rather than responding to the actual needs of the district:

"You know? the political wing will always put resources where they can easily be accounted for in the public eye, if you say I constructed a health centre, every person who passes can see but if you say I constructed [recruited] that health worker, nobody will see it." (DHMT member Self-assessment FGD)

The DHMT has full authority to post and transfer staff between health facilities within the district. However, some managers suggested that nepotism at higher levels sometimes undermines their decisions in this regard:

"...sometimes they may identify a gap at health facility X but if the recruited staff is related to any of the bosses in the district then they want you to post this person at a particular facility not necessarily where you had a gap." (DHMT member Self-assessment FGD)

In general, this wide decision space for posting helps DHMTs to improve overall workforce performance but also it gives them the power to use transfers as a reward or sanction for good or poor performers respectively.

3. <u>Remuneration and incentives</u>

Different institutions are involved in remuneration and incentives policy development and implementation. The Ministry of Public Service (MoPS) develops policy on wages and salaries and approves the wage bill (Ministry of Public Service 2010). The Ministry of Health (MoH) approves staff establishment ceilings, provides detailed wage bill allocation to districts according to the establishment and ensures districts comply with allocated ceilings. The Ministry of Finance, based on the wage bill approved by MoPS, finalises the wage bill budget allocation and ensure funds availability for salary payments (Ministry of Health 2011a). We could not find any mention of DHMT's role in salary and incentives setting in the documents reviewed suggesting a narrow "de jure" decision space in this area. Consistent with this, all participants perceived not having any decision space to set salaries.

"...the salaries are paid by the centre, by public service, that is at the national level, so for us we don't have any control." (DHMT member Self-assessment FGD)

Regarding financial incentives all districts expressed their difficulties in getting funding for this purpose. In one district they expressed frustration about other districts being able to provide top-ups for doctors which, in the context of competition among districts created by decentralization, may leave them behind in capacity to retain greatly needed cadres. Financial constraints have further implications concerning incentives. It was reported that in cases where there are several good-performers and there are not enough means to reward all of them, those who do not get rewards may feel in a comparative disadvantage and may lose motivation which in turn may negatively affect their performance and retention.

"Some of those people who have done very well and the system has recognized them are happy with the opportunities that come their way, of course the system cannot recognize everybody, those who have not been recognized and yet their contribution is high, of course they don't feel well." (DHMT member Self-assessment FGD)

Development partners sometimes pay salaries for additional staff recruited for their sponsored programmes. In one of the districts one partner was supporting salaries for 22 additional staff.

"I came on a contract with xxxx [development partner]. xxxx is the one supporting us, paying our salaries, but it is working together with the district." (DHMT member Self-assessment FGD)

DHMTs perceived having a wide space to decide about non-monetary incentives and in fact they all reported introducing access to training or recognition awards to retain best workers in the district:

"Of course we do supervisions, you find a health facility performing well, the first incentive is the word "thank you" itself that you have reached at my place of work and you say that I am doing a good job, the other incentive is that when you find somebody is performing very well, if there is a workshop, he is invited to go to attend... [] ...we were looking at individuals, at health facilities how they have performed and we would give them certificates and gifts to say thank you; that is the farthest we could go." (DHMT member Self-assessment FGD)

4. <u>Performance management and supervision</u>

The Health Sector Strategic Plan III 2010/11 - 2014/15 (Ministry of Health 2011b), suggests that DHMTs have full authority to manage the performance of their workers. Appraising staff on annual basis is mandatory as per policy from the Ministry of Public Service. This Ministry produces guidelines and tools for staff appraisal in all sectors with the Health Service Commission adapting them to the health sector (Health Service Commission 2005).

All DHMTs perceived having full authority to appraise and supervise their staff. Workers' appraisal against agreed annual objectives is normally undertaken by the immediate line manager each year. Interviewees also mentioned that, unlike senior staff, frontline workers are sometimes reluctant to be appraised as they do not see the benefits of it.

Facilities are meant to be supervised on a quarterly basis by the DHMTs. Some of the barriers expressed by DHMT members to conduct supervisions include lack of resources like transport. However, DHMTs reported that development partners facilitated transport for their specific activities which was used by DHMTs to undertake supervision. The limited time allocated to supervision was mentioned as a reason for sometimes not thoroughly analysing issues identified and acting on them.

5. <u>Continuing education and training</u>

Continuing Professional Development (CPD) of health workers at district level is under the responsibility of the National Steering Committee for CPD at MoH through a CPD district coordinator (Ministry of Health 2006). District health managers, in line with the terms of the Second National Health Policy 2010 have the responsibility of ensuring appropriate professional development of their workers (Ministry of Health 2010).

DHMTs perceived having some or full authority to decide about organization of CPD activities. However, they all reported having little or no power to finance these activities unless these are included in the annual work plans agreed with district authorities. Despite some funding being allocated at district level for CPD and the fact that the District Local Council assesses periodically the needs for training, results of these assessments are rarely used for effectively deliver inservice training for health workers. This was reported to be sometimes caused by mismanagement or corruption:

"As a DHMT, we don't have capacity to fund any course here but the district [government] is supposed to have the career development plan which has money that is supposed to be shared across departments like education, production, but that money has not been streamlined properly" (DHMT member Self-assessment FGD)

In all districts, development partners play an important role in developing capacity for the specific programmes they sponsor.

6. Human resources information

While there is mention in the HRH policy 2006 (Ministry of Health 2006) of the importance of strengthening the HR information system (HRIS), it does not identify specific functions or areas in which DHMTs should make decisions. The National Health Policy 2010 (Ministry of Health 2010) encourages analysis and use of information for decision-making at all levels.

All managers perceived to have full authority in maintaining the HRIS. Health workers' personal files, including employment history, experience and skills acquired during training, are kept and maintained by the DHMT's office. Members of the DHMT perceived having a relatively wide decision space to generate and use health workforce information, particularly after the recent digitalization of the HRIS. This is perceived by managers as an important development which allows them to forecast HRH needs more accurately than when they had to rely on paper-based systems.

Discussion

We have seen that district health managers' decision space for HRM is influenced by multiple factors. Policy and regulatory frameworks define the *"de jure"* space. However, the *"de jure"* decision space alone does not necessarily define the actual (*"de facto"*) decision space. In fact, perceived decision space, when narrower than the *"de jure"* decision space, may limit decision-making of local managers as occurred in the Education area. Similarly, when managers perceived to have more space than that defined *"de jure"*, they made decisions, as happened in the Information area. Moreover, the fact that scores for perceived space (e.g. questionnaire) and those obtained from the assessment of the reported actual decision-making practice (e.g. focus group discussions) coincided, suggests that managers use all the space they perceive to have.

Hence managers' perception of the degree of decision space available (which may be different to that dictated by policy or regulatory frameworks) is critical to understanding how action is taken or not taken.

This study has shown that issues in other components of the health system beyond the workforce such as financial constraints, lack of material resources or administrative hurdles and other areas of influence such as local politics, all affect DHMT's ability to make and implement their own decisions about the workforce. In this regard the role that development partners play in supporting the health workforce was found to be relatively limited to payment of salaries for additional staff, providing logistic support for supervisions and providing capacity building for their specific programmes. District health managers operate within organisations that are in essence complex adaptive systems (Byrne & Callaghan 2014) in which different components interact and where changes in one component affect other components of the system (Agyepong et al. 2012; Plsek & Greenhalgh 2001). Consequently, in order to address health workforce issues, a holistic approach to HRM and understanding the relationship between different health system components, which implies a broad systems approach, is required beyond the specific technical workforce aspects (De Savigny & Adam 2009).

Managerial decentralization represents an essential element of the health sector reform agenda (Cassels 1995; Gilson & Mills 1995; Seshadri et al. 2016). In theory, devolving authority to local health managers is meant to improve allocative and technical efficiency, equity, responsiveness to local needs and quality of services (World Bank 1993). This study, in line with what was found in Ghana and Zambia (Bossert & Beauvais 2002; Kwamie et al. 2016), showed that, while some HRM decisions such as recruitment, appointment or promotion are indeed decentralized in Uganda, they are only devolved to the district government rather than to the DHMT which is the final HRM decision-maker. District governments deal with all public sectors and health may not always be a priority for them (Nannyonjo & Okoti 2013). Also the political nature of decentralization has its reflection at the local level as decisions often rely on elected district

authorities who are under the influence of political patronage (Green 2010). The rewards for good performance as well as sanctions are hard to operationalize. For example, staff promotions for those deserving this reward are usually unavailable due to wage bill controls at the central level. In addition, managers suggested that despite some HRM functions being officially decentralized, corruption and mismanagement were affecting the effectiveness of their decisions in HRM as reported when speaking about funding available for capacity building not being translated into actual training activities. In general, we have seen how health managers at district level have limited power to make decisions about their workforce which undermines the rhetoric about the benefits of managerial decentralization.

One of the strengths of this study is based on its multi methods approach (Green & Thorogood 2004). While questionnaires provided a tool to quantify managers' perceptions about their decision space, the analysis of data generated through FGDs allowed for a more in-depth analysis of these perceptions. In this regard triangulation of results has contributed to strengthen the robustness of our findings.

This study took place in three districts out of 112 (at the time) which may limit the generalisability of results across Uganda. However, the low inter-district variability in terms of perceived and factual decision space found suggests a similar situation across districts in the country. We have tried to provide sufficient details of the policy and regulatory context and management structures and relationships within districts in order to support lessons learning and transferability to contexts beyond Uganda.

Conclusion

This paper has shown that decentralization, to fully achieve its objectives in regard to strengthening health workforce management, needs to shift power further down from district government and capitalise more on the management potential of district health managers.

DHMTs need more power and authority to make decisions with respect to their workforce, and importantly also more control over resources so they can successfully implement their decisions.

Bibliography

- Agyepong IA, Kodua A, Adjei S, Adam T. 2012. When 'solutions of yesterday become problems of today': crisisridden decision making in a complex adaptive system (CAS)—the Additional Duty Hours Allowance in Ghana. *Health Policy and Planning*, **27**: iv20-iv31.
- Bonenberger M, Aikins M, Akweongo P, Wyss K. 2014. The effects of health worker motivation and job satisfaction on turnover intention in Ghana: a cross-sectional study. *Hum Resour Health*, **12**: 43.
- Bonenberger M, Aikins M, Akweongo P, Wyss K. 2016. Factors influencing the work efficiency of district health managers in low-resource settings: a qualitative study in Ghana. *BMC Health Serv Res*, **16**: 12.
- Bossert T. 1998. Analyzing the decentralization of health systems in developing countries: decision space, innovation and performance. *Soc Sci Med*, **47**: 1513-27.
- Bossert T, Beauvais J. 2002. Decentralization of health systems in Ghana, Zambia, Uganda and the Philippines: a comparative analysis of decision space. *Health Policy and Planning*, **17**: 14-31.
- Bossert TJ, Mitchell AD. 2011. Health sector decentralization and local decision-making: Decision space, institutional capacities and accountability in Pakistan. *Soc Sci Med*, **72**: 39-48.
- Byrne D, Callaghan G. 2014. *Complexity theory and the social sciences. The state of the art*. Routledge, Oxon, UK. Cassels A. 1995. Health sector reform: key issues in less developed countries. *J Int Dev*, **7**: 329-47.
- Cometto G, Campbell J. 2016. Investing in human resources for health: beyond health outcomes. *Hum Resour Health*, **14**: 51.
- De Savigny D, Adam T. 2009. Systems thinking for health systems strengthening. World Health Organization.
- Exworthy M, Frosini F. 2008. Room for manoeuvre? Explaining local autonomy in the English National Health Service. *Health Policy*, **86**: 204-12.
- Franco LM, Bennett S, Kanfer R. 2002. Health sector reform and public sector health worker motivation: a conceptual framework. *Soc Sci Med*, **54**: 1255-66.
- Gilson L. 2012. The Case Study Approach. In: Gilson L (ed). *Health policy and systems research: a methodology reader.* Geneva: World Health Organisation,.
- Gilson L, Mills A. 1995. Health sector reforms in sub-Saharan Africa: lessons of the last 10 years. *Health Policy*, **32**: 215-43.
- Government of Uganda. 2016a. Health service Commission: Background. Kampala, Uganda.
- Government of Uganda. 2016b. Ministry of Public Service: Mandate. Kampala, Uganda.
- Green E. 2010. Patronage, District Creation, and Reform in Uganda. *Studies in Comparative International Development*, **45**: 83-103.
- Green J, Thorogood N. 2004. Qualitative Methods for Health Research. SAGE Publications Ltd., London, UK.
- Health Service Commission. 2005. HSC Guidelines for the Recruitment of Health Workers in Districts and Urban Authorities 2005. In: HSC (ed). Entebe, Uganda.
- Jeppsson A. 2004. Decentralization and National Health Policy Implementation in Uganda a Problematic Process. Department of Community Medicine. Malmo, Sweden: Lund University.
- Kivumbi GW, Nangendo F, Ndyabahika BR. 2004. Financial management systems under decentralization and their effect on malaria control in Uganda. *Int J Health Plann Manage*, **19 Suppl 1**: S117-31.
- Kolehmainen-Aitken R-L. 1998. Decentralization and Human Resources: Implications and Impact. *The Human Resources for Health Development Journal*, **2**: 1-28.
- Kolehmainen-Aitken R-L. 2004. Decentralization's impact on the health workforce: Perspectives of managers, workers and national leaders. *Hum Resour Health*, **2**: 5.
- Kwamie A, van Dijk H, Ansah EK, Agyepong IA. 2016. The path dependence of district manager decision-space in Ghana. *Health Policy Plan*, **31**: 356-66.
- Ministry of Health. 2006. Human Resources for Health Policy 2006. Entebe, Uganda.
- Ministry of Health. 2010. The Second National Health Policy. Promoting People's Health to Enhance Socio-Economic Development. In: MoH (ed). Kampala, Uganda.
- Ministry of Health. 2011a. Districts' Human Resources for Health Recruitment Plan 2011/2012.
- Ministry of Health. 2011b. Health Sector Strategic Plan III 2010/11-2014/15
- Ministry of Public Service. 2010. The Uganda Public Service Standing Orders January 2010. Entebe, Uganda: Ministry of Public Service.

Ministry of Public Service. 2011. Job Descriptions and Specifications for Jobs in Local Governments Entebe, Uganda.

Mshelia C, Huss R, Mirzoev T, et al. 2013. Can action research strengthen district health management and improve health workforce performance? A research protocol. *BMJ Open*, **2013**.

Mshelia C, Le[^] G, Mirzoev T, et al. 2016. Developing learning diaries for action research on healthcare management in Ghana, Tanzania and Uganda. *Action Research*, **0**: 1-23.

Nannyonjo J, Okoti N. 2013. Decentralization, Local Government Capacity and Efficiency of Health Service Delivery in Uganda *Journal of African Development*, **15**: 125-158.

- Pierantoni CR, Garcia AC. 2011. Human resources for health and decentralization policy in the Brazilian health system. *Hum Resour Health*, **9**: 12.
- Plsek PE, Greenhalgh T. 2001. Complexity science: The challenge of complexity in health care. BMJ, **323**: 625-8.
- Richie J, Spencer L. 1994. Qualitative data analysis for applied policy research. In: Bryman and Burgess e (ed). *Analysing Qualitative Data.* London: Routledge, p173-194.
- Rondinelli DA, McCullough JS. 1989. Analysing Decentralization Policies in Developing Countries: a Political-Economy Framework. *Development and Change*, **20**: 57-87.
- Seshadri SR, Parab S, Kotte S, Latha N, Subbiah K. 2016. Decentralization and decision space in the health sector: a case study from Karnataka, India. *Health Policy Plan*, **31**: 171-81.
- Solter S. 1999. Does decentralization lead to better-quality services? In: Kolehmainen-Aitken R-L (ed). *Myths and Realities about decentralization of Health systems.* Boston, USA: MSH.

Sunderbrink U, Marx M, Huss R. 2003. The Decentralization Assessment Tool. Understanding the Impact of Decentralization on Reproductive Health Services in Africa Consortium.

Uganda Legal Information Institute. 2016. Local Governements Act 1997. Kampala, Uganda.

Witter S, Wurie H, Bertone MP. 2016. The free health care initiative: how has it affected health workers in Sierra Leone? *Health Policy Plan*, **31**: 1-9.

World Bank. 1993. World Development Report: Investing in Health. The World Bank.

- Yammarino FJ, Atwater LE. 1997. Do managers see themselves as others see them? Implications of self-other rating agreement for human resources management. *Organizational Dynamics*, **25**: 35-44.
- Yin RK. 2009. Case Study Research. Design and Methods. 4th edn. SAGE, Thousand Oaks CA.