DECENTRALISATION AND HUMAN RESOURCES FOR HEALTH: THE CASE OF ZAMBIA

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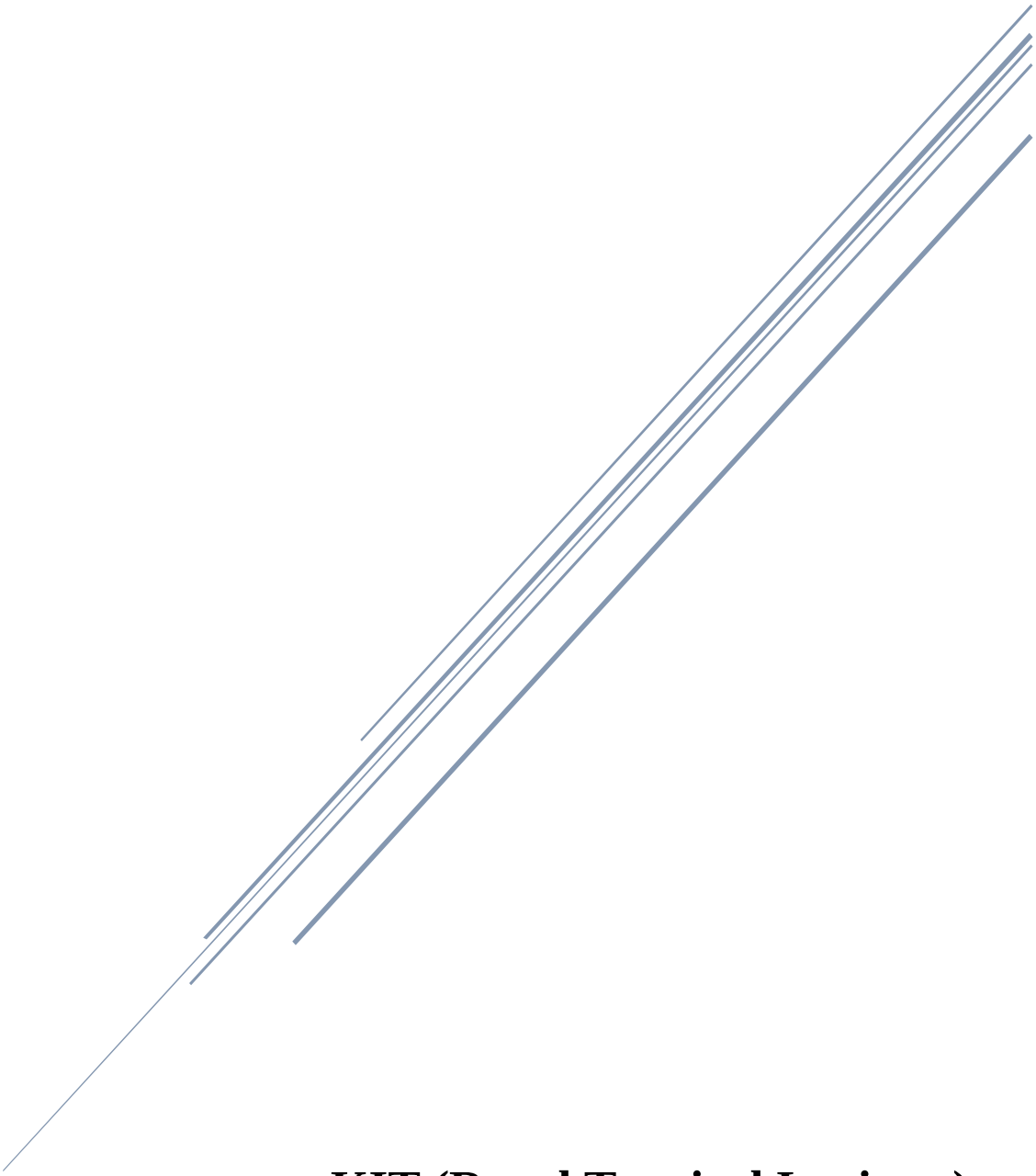
56th Master of Public Health/International Course in Health Development



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DECENTRALISATION AND HUMAN RESOURCES FOR HEALTH: THE CASE OF ZAMBIA

A thesis submitted in partial fulfilment of the requirement for the degree of Master of Science in Public Health

By

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ZAMBIA.

Declaration:

Where other people's work has been used (from either a printed source, internet or any other source), this has been carefully acknowledged and referenced in accordance with departmental requirements.

The thesis [Decentralisation and Health: The Case of Zambia] is my own work.

Signature: 

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Abstract

Introduction

Zambia's health system has been devolved. However, there exists a gap and contradiction in knowledge on the effect of devolution on primary health care and its effect on human resource for health (HRH), including on implementation, facilitators, and barriers. This study assesses LMIC experiences with devolution in HRH in order to recommend strategies to the Ministry of Health for effective implementation of Zambia's devolution policy.

Methodology

A scoping of the literature through hand and systematic searches were conducted using Vrije University library, google, google scholar, and 2 databases PubMed Central and Journal for Human Resource for Health. The analysis was guided by the labour market framework and focused on human resource dimensions of performance, productivity, skill mix, maldistribution, retention, and gender. The study included literature published between 2000 and 2020 and was conducted between January and August 2020.

Results

Experiences with decentralisation/devolution in 17 Low-and-Middle Income countries from Africa, Asia and Latin America were reviewed. Human resource needs to be coordinated. Recruitment and training of rural doctors is effective in addressing retention in rural areas. No relevant literature on skill mix.

Discussion

Addressing retention requires establishing training institutions in rural areas, introducing curriculum on rural medicine, and training and recruiting doctors from rural areas. Governance of HRH requires adoption of a country coordination and facilitation system at provincial and district levels. Give more autonomy to local government offices to control the supply chain for drugs and medical supplies, and equipment.

Key words: decentrali* OR devolution AND human resource for health AND performance OR maldistribution OR retention OR gender

250 Words

Acknowledgement

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I am indebted to all the people with whom I collaborated in making this work a success and last but not least, I pay homage to my wife and children for persevering during my absence. I dedicate this paper to you!

List of Abbreviations

AIDS	Acquired Immune deficiency Syndrome
CCF	Country Coordination and Facilitation
CHE	Current Health Expenditure
CSO	Central Statistical Office
GDP	Gross Domestic Product
GHE	Government Health Expenditure
HIC	High Income Country
HIC	High Income Country
HIV	Human Immunodeficiency Virus
HRH	Human Resource for Health
JICA	Japanese International Cooperation Agency
LMIC	Low Middle Income Country
MO	Medical Officer
MoH	Ministry of Health
NCD	Non Communicable Disease
NGO	Non-Governmental Organisation
NHIMA	National Health Insurance Management Authority
NHIS	National Health Insurance Scheme
PHC	Primary Health Care
R-NDP	Revised National Decentralisation Policy
RTI	Respiratory Tract Infection
SDG	Sustainable Development Goal
TB	Tuberculosis
THE	Total Health Expenditure
UHC	Universal Health Coverage
UN	United Nations
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
US$	United States Dollar
UTH	University Teaching Hospital
WB	World Bank
WHO	World Health Organisation
ZMW	Zambian Kwacha Rebased

Glossary of Terms

Decentralisation	This is where authority, power, resources and responsibility for primary health care are moved from central to lower levels of governance in a country
Deconcentration	This is where central government hands over some responsibility relating to primary health care to other administrative wings like ministry of health or local government
Delegation	This is where central government transfers some management or administrative functions to other institutions outside its regular structure
Devolution	This is transferring primary health care responsibility to local administrative structures with defined sets of responsibility

List of Figures

List of Tables

Table of Contents

Chapter 1

1.0 Introduction

The author is an employee of the Ministry of Health in the Republic of Zambia and works as Planner-(Budgets & FAMS) in Vubwi District of Eastern Province. The thesis; Decentralisation and Human Resource for Health: The Case of Zambia, was a partial fulfilment of the Master of Science (MSc) in Public Health conducted by the Royal Tropical Institute (KIT) in collaboration with Vrije University Amsterdam, in the Netherlands. The increasing trend for decentralisation of the health sector as a system of governance in low-middle and high income countries was a motivating factor to pursue the topic. Further, while health workers are enrolling in training schools annually and it is expected that the number of students graduating will increase from 4, 000 to 10, 000 from 2016 to 2021 respectively (1), the country still faces health worker shortages and ineffective staff mix scenarios (2)(1). It is hoped that with appropriate interventions, HRH will be more responsive to the health needs of the population and ultimately contribute to achieving the goals of Primary Health Care (PHC) in a devolved system of governance. It is therefore important to explore the various perspectives related to such Human Resource for Health inadequacies and contribute to making recommendations to the Ministry of Health (MoH) for possible action. Globally, a number of countries have adopted a decentralised system of governance especially in their health systems in order to enhance both responsiveness and performance (3). The World Health Organisation highlights different types of decentralisation and these include; Political, Administrative, Fiscal and Market Decentralization (3). In addition, Administrative Decentralisation is further categorised in Devolution, Deconcentration and Delegation (3). In this study, the term 'decentralisation' is used as an umbrella term to cover devolution and deconcentration, the forms of decentralisation that are assessed. The objective of this study is to explore LMIC experiences with Devolution/Deconcentration/Delegation in PHC with a focus on Human Resources for Health (HRH) in order to recommend strategies to the Ministry of Health in Zambia for effective implementation of Zambia's devolution policy with regard to Primary Health Care (PHC).

1.1 Background of study

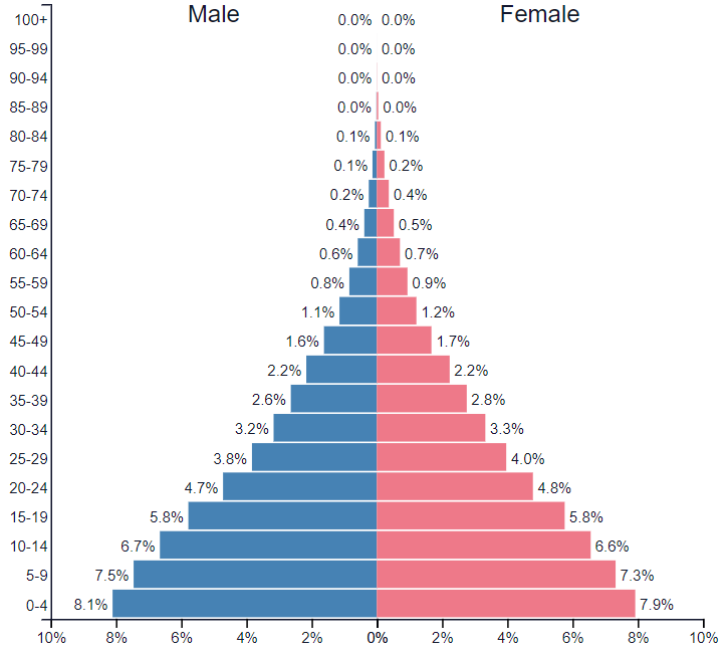
Zambia is a land locked country surrounded by eight (8) neighbouring countries and is situated in South-Central Africa as shown in figure 1 below. According to the Central Statistical Office (CSO) population projection, Zambia is expected to have around 17 million inhabitants in 2020, (4). Among these, 67.24 percent are in rural areas and the rest in urban areas (5). The Total Fertility Rate (TFR) is estimated at 4.7 births per woman with urban areas showing a lower TFR of 3.4 compared to 5.8 in rural areas (6). The TFR suggests a population growth rate of 3 percent which others have argued that this might not be sustainable for the country as it poses a burden on water, sanitation, energy, and health care (7). Further, it is projected that the country's population will increase by 941 percent by the end of the century, the highest of all countries in the world (7).

Figure 1: Map of Zambia

Source: Zambia Demographic and Health Survey (8)

Figure 2 below shows the population pyramid

Figure 2: Zambia's Population Pyramid



Source:(9)

1.3 Economic Indicators

The country's Gross Domestic Product (GDP) has been growing at a rate of about 6 percent from 2010 but the lowest was recorded in 2015 at 4.6 percent (10). These trends are mainly influenced by the manufacturing and industrial sectors (10). Notably, the agricultural sector has not been performing well due to poor rainfall and related factors (10). However, the service sector was said to contribute about 45 percent to the country's GDP.

In addition, adult literacy rate was estimated at 68 percent of the population (11) while average life expectancy at birth was 47.3 years for Zambia compared to an average of 52.7 percent for Sub Saharan Africa as of 2010, (12). Further, Kundishora, (2009) stated that, only about 44 percent of the population used improved sanitation services in 1990 although this figure increased to 55 percent by 2004 (11). Apart from this, the proportion of people using improved water sources increased from 50 to 58 percent in the same period (11).

1.4 Health System

The Zambian health system is mainly public although the government has also involved other private not-for-profit institutions, Non-Governmental Organisations (NGOs) and church bodies for purposes of increasing access and coverage, (13). The sector is categorised into three levels namely; first, second and tertiary level which includes Central hospitals and the University Teaching Hospital (UTH), (13).

Statistics show that the Zambian health system has less than half of the required numbers of HRH (14). In terms of ratios, estimates indicate 1 doctor per 14, 500 people and 1 nurse per 1, 800 people (14)(15) which are lower than the recommended 1 health worker for 400 people (16) or 2.3 health workers for 1, 000 people (17). With regard to doctors, one major challenge compounding the perceived shortage of staffing is the misplacement or deployment of clinicians to positions for with they have little or no expertise (18)(19)(20)(21). For instance, in 2009, the country had 801 doctors (22) and 118 of these perform administrative roles at district health offices (23) instead of being placed where they would be most productive (22). This is further strengthened by restrictive job descriptions for positions at district level in preference for medical cadres for instance (23). In the context of Zambia's health system, PHC is the focus of devolution and the related functions will completely have to be a preserve under district local authorities (24). Further, the country has 1,956 Health facilities, (2), all of which are run by doctors except for Health Centres and Health Posts. Figure 2 below shows the number of Health facilities categorised by ownership.

Table 1: Health facilities and category by ownership

Health Facilities, by type	Total	Percentage of Facilities
Health Posts	307	16%
Rural Health Centers	1,131	58%
Urban Health Centers	409	21%
Level 1 Hospitals	84	4%
Level 2 Hospitals	19	<1%
Level 3 Hospitals	6	<1%
Total	**1,956**	**100%**
Health Facilities, by provider		
MoH	1,590	81%
Mission	116	6%
Private	250	13%
Total	**1,956**	**100%**

Source: Zambia Health System (25)

In terms of Human Resources for Health, the health sector is faced with a number of challenges, (26) for example;

- Poor management
- Over centralised decision making
- High labour turn over
- Inadequate funding, and
- Misplacement of health workers to positions for which they do not have expertise.

In addition, the Zambian health sector is constrained by inadequate financing. The scenario is that the sector is financed by central government through monthly grants (27).

The other sources of funds come from donors and cooperating partners (27). For instance, General Health Expenditure (GHE) in Zambia, as a percentage of fiscal space, was 7.1 percent translating to Rebased Zambian Kwacha (ZMW) 3.1 billion equivalent to United State Dollars 302 Million (US$ 302 Million), way below the Abuja Protocol (22). Furthermore, data suggests that Current Health Expenditure (CHE) per capital in the country was US$ 59 per capital compared to the recommended US$ 86 per capital as a drive towards achieving Universal Health Coverage (UHC) (28).

1.5 Major Health Problems

The major health problems in Zambia include Malaria, HIV/AIDS, Tuberculosis (TB), Diarrhoea, Skin diseases, Respiratory Tract Infections and malnutrition (13). Further, the country has been experiencing an upsurge of Non-Communicable diseases (NCDs) such as renal, cardiac disease and diabetes, (13).

1.6 The Case of Decentralisation

The overall strategic goal of Zambia is to ensure improved health status of citizens so as to contribute to enhanced productivity and socio-economic development of the country (1). Since attaining independence in 1964, Zambia has made a number of attempts to decentralise (29)(30)(31). Notably, these efforts have been a combination of different sub-types of decentralisation, that is; Devolution, Deconcentration and Delegation (32). In line with this, the Ministry of health has been implementing various reforms aimed at improving health service delivery from the year 2015, and at the centre of this, has been **the devolution of primary health care services to local government at district and provincial level** (33). The Revised National Decentralisation Policy (R-NDP) is the latest guide on decentralisation in the country (24). The R-NDP was effected in January 2015 and it is mentioned that the preference of decentralisation by devolution was motivated by the desire to achieve **decentralised governance with a focus on Districts** (24). It is also envisaged that devolution will transfer **Primary Health Care (PHC) delivery to local government** (24). In this case, PHC will be a function under local authorities at provincial and district levels (34).

Notably, the R-NDP was structured in such a way that central government guides overall health policy with the aim of ensuring sustained quality of services. In addition, while the health sector will have some revenue collection functions through local government, the funds will have to be remitted to central government which in turn is expected to provide monthly grants for activities (24). Whether or not this revenue will be sufficient to respective districts and the capacity to innovate income generation is yet to be seen. Further, how effective the grants will be distributed is not fully known but this has previously been on the basis of per capita (27). In addition, to achieve PHC, the Ministry of Health has set to achieve a specific goal through various of strategies in line with decentralisation (35).
One of the strategic objectives of the Ministry of Health is to improve the capacity of **districts, hospitals, and clinics** to deliver health services at the community level (1).

Implementation of the decentralisation process is currently being done in phases. For instance, 1992-2015 was a concept stage for policy making and legislation (36). 2015 was earmarked for Devolution institutional reform involving redesigning of local councils and sub-levels (36). Further, the period 2015-2017 was prescribed for the implementation of the human resource component while fiscal decentralisation was to be fully implemented in the 2016-2017 fiscal year (36). However, realignment of functions and linking them to provincial and district governance structures with matching financial resources is yet to be seen. Currently, there is no evidence of implementation and effectiveness of devolved staffing decisions, policy making power, and fiscal decentralisation (36). In 2015, the Ministry of Health was one of the first ministries whose functions were devolved to local authorities. The devolved function was PHC and specifically involved the transfer of

Community management of HIV/AIDS and TB programmes under the HIV/AIDS/TB/STI Council (24).

1.7 Problem Statement

In Zambia, PHC services have been devolved to local authorities at provincial and district levels (24). However, local authorities still do not have a role in recruiting, distributing and retention of Human Resource for Health (HRH) (24). In line with the devolution policy, organisational structures, links between them, and job descriptions have been revised at both provincial and district levels. However, there exists a gap and contradictions in knowledge on the effect of decentralisation on PHC in general in LMICs and existing knowledge is often inconclusive. For example, some studies have shown that decentralisation can be a complex political and technical process with various implications (37) and most often than not, the results of this process are mixed, in terms of overall benefits and pitfalls (38)(39). Furthermore, one study found that devolution could be a complex process especially if implemented hurriedly and with high political influence, in which case the process becomes detrimental to equitable, efficient and competent HRH services (40). Further, factors that influence both success and failure of decentralised health systems are often not fully understood,(41).
A study on Uganda, Kenya and Tanzania found that although improvements were seen in service delivery, the scenario was complex and success factors varied and closely intertwined (38), at the same time, it was concluded that decentralisation could not easily bring about positive results (38). Moreover, An analysis of African Health Systems showed that Decentralisation could exacerbate health inequalities in PHC as central governments struggle to allocate and transfer resources from rich to poor regions within countries (42). In Kenya, a study showed that decentralisation brought health services closer to the communities but at the same time, there was a suggestion of increased corrupt practices, late receipt of salaries and poor management (43).

Further, very little is known about the effect of decentralisation/devolution on HRH, including on implementation, facilitators, and barriers in decentralised HRH in Zambia (40). For instance, Sreeramareddy and Sathyanarayana (2013), state that Decentralisation of the health system might not be an easy undertaking for a number of reasons, for example; particular functions of HRH to decentralise and which stage of the health system to decentralise are not always straight forward (44).

It is known that, the process of Decentralisation should be a gradual and smooth transition so that existing systems are not stretched beyond capacity (37). In South Africa, cognisance was made to the fact that Decentralisation was technical and political, so that, the process should not be implemented hurriedly to avoid the risk of failure (37).

However, there is evidence that devolution tends to attract and retain low cadre staff more than specialists (45), but the current devolution policy in Zambia does not explicitly state how cadres such as specialists and other high non-medical professionals will be attracted and retained. In addition, it is not clear how decentralisation will help to address the skewed distribution and unemployment of HRH (46).

Last but not least, very little is known about the effect of decentralisation on HRH, including on implementation, facilitators, and barriers in decentralised HRH in Zambia (40).

1.8 Justification and Objectives of the study

A review of the literature suggests that factors that influence the success or failure of decentralised health systems in LMICs is not fully understood, in particular where it concerns factors that influence the implementation and effects of decentralisation on HRH. Because of this, it is important that a study is undertaken in order to identify these factors, and to maximise the benefits and minimise the pitfalls in the process of devolution in

Zambia. Furthermore, this study is significant as it could contribute to the efforts of the MoH in meeting its PHC goal through a more effective HRH policy and governance system.

1.9 Specific Objectives

The study focussed on the following specific objectives;

- To explore experiences, successes and barriers in LMIC with HRH in a decentralised system of governance, in particular with regard to performance, productivity, skill mix composition, gender, and retention of HRH in PHC in Zambia
- To recommend strategies to set up or improve health service delivery in districts in a decentralised system of governance through improved HRH to the ministry of health in Zambia.

Chapter 2

2.0 Methods

This paper is a Literature Review that looks at enhancing health care delivery in a decentralised system of governance in Zambia with a focus on Human Resources for Health (HRH). A literature review is one that reviews available literature on a particular research question comprehensively (47). This type of study was chosen in order to have a sound base of knowledge on decentralisation in general (48). Through this, a literature review was useful in identifying gaps in knowledge, contradictions in previous studies, and in identifying best practices in respect of devolution and HRH in PHC (48). This was essential especially that devolution is at an early stage of implementation in Zambia.

2.1 Search Strategy

This search for relevant documents to attain the research objectives consisted of 3 steps;

1. Scoping of the literature which entailed a hand search of literature using Vrije Universitet Library, Google and Google Scholar. The key terms used include; "Decentrali,*" Deconcentration, Devolution AND Primary Health Care OR Health Service Delivery AND Human Resource for Health OR Health workforce AND Productivity OR Performance OR Skill mix OR Retention OR Gender AND Zambia OR LMICs.
2. Hand search of relevant policy documents (including grey literature) on Zambia through searches on google, websites including WHO, journal of human resources for health, and HRH Global Resource Centre, and
3. Followed by a systematic search in two databases; Journal of Human Resources for Health and PubMed, using the following terms; (Decentralisation[All Fields] AND ("primary health care"[MeSH Terms] OR ("primary"[All Fields] AND "health"[All Fields] AND "care"[All Fields]) OR "primary health care"[All Fields]) AND ("workforce"[MeSH Terms] OR "workforce"[All Fields] OR ("human"[All Fields] AND "resource"[All Fields]) OR "human resource"[All Fields])) AND ("2000/06/27"[PDat] : "2020/06/23"[PDat])

Table 2 below highlights the definition of terms.

Table 2: Definitions of terms

S/N	Term	Definition
1	'Decentral'	This relates to transfer of power and authority of matched responsibility from central government to lower levels of governance like provinces and districts (49)
2	Devolution	This is a process of transferring functions to sub-national levels of elected government (50)
3	Deconcentration	This is where authority, duties for management and financial resources are reallocated to various levels of government (50)
4	Primary Health Care	Evidence based essential health care based on socially acceptable means and technologies aimed at achieving Universal Health Coverage (UHC)(1)
5	Retention (Geographic)	Percentage of HRH with presence of health practice in an area (city/rural area) that the health worker identifies as her/his place of birth (51)
6	Productivity (Provider)	Relative number of specified tasks performed by HRH or assessment of how much time health workers spend on their job and what portion of that time is spent on patient care (52)(53)
7	Performance	Described in terms of four dimensions, that is; responsiveness, productivity, competence, and availability (54)

8	Skill-mix	Combining different health workers to produce a desired level of health care (55)
9	Human Resource for Health	All the workers who are involved in activities whose primary purpose is to enhance health (54)

2.2 Selection: Inclusion/Exclusion

The selection included studies on Decentralisation, Primary Health Care, and HRH from **Low-and Middle-Income Countries** in general. Further, only literature addressing experiences with HRH and particularly on productivity, performance, skill mix, maldistribution, retention and gender in PHC between 2000 and 2020 were included while materials not addressing HRH, without decentralisation, and outside the stated timeframe were excluded. Table 2 below highlights the inclusion and exclusion criteria.

Table 3: Table of Inclusion and Exclusion

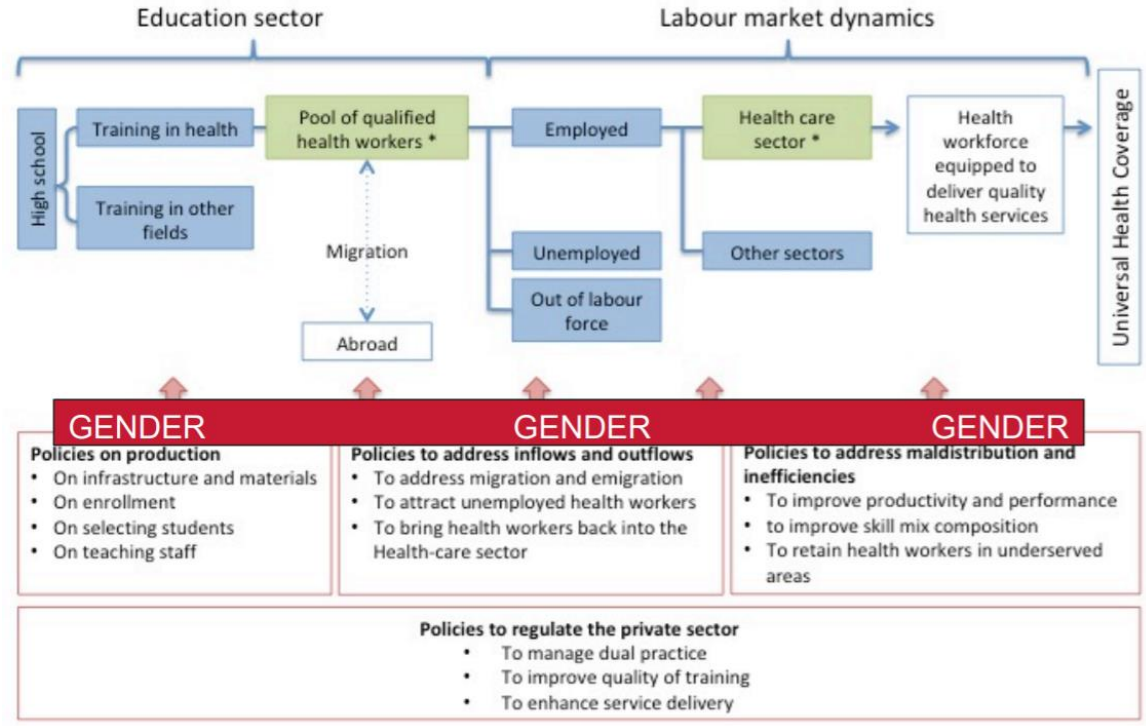
Inclusion criteria-type of Document	Inclusion criteria-content	Exclusion criteria
Peer Reviewed Journals	Literature focusing on devolution, deconcentration	Literature on delegation, fiscal and market decentralisation Decentralisation and HRH in High Income Countries (HICs)
	Literature on Decentrali* OR Devolution OR Deconcentration AND HRH in Zambia and LMICs	Literature on PHC without Decentrali* Literature outside LMICs
	Literature on HRH on LMICs with decentralised health systems	Literature on HRH on countries without decentralised system of governance
	Focussing on PHC	Non PHC
Grey Literature	Ministerial statement on current devolution policy in Zambia, News Paper article, National Assembly Report on Devolution in Zambia, Latest Government Circular on Devolution	Articles, Circulars, and Reports not addressing decentrali*,deconcentration, or devolution in Zambia
Peer Reviewed Journals and Grey Literature	Literature between 2010 and 2020	Literature before 2010

2.3 Data Extraction and Analysis

The selected papers were reviewed using one part of the health labour market framework (see figure 2): the policy lever addressing distribution and efficiency of HRH for attaining Universal Health Coverage (UHC) (56). While the entire framework is helpful, only the policy lever addressing maldistribution and inefficiencies in HRH will be used to allow for an in-depth analysis of the dimensions of interest and to make the review feasible in the time available. This part of the model was used because it helped the writer to think in an effective and logical way. Thence, the components of **performance, productivity, skill mix composition, gender, retention of HRH in underserved areas, and gender** are the dimensions that will be addressed in the selected literature. In addition, the model makes it easier to distinguish the different components of the study and guides the sources of information with regard to the above mentioned dimensions and in the context of

devolution, HRH and Primary Health Care (PHC). Apart from this, the model guides sources in literature on existing policies in the health labour market.
The approach in extracting data was enabled by the use of an excel matrix which distinguished the selected articles by themes that included; name of author, title of article, objective of the study, experience of the study with HRH, effect of devolution/'decentrali'/deconcentration on the dimensions of HRH (performance, productivity, skill mix composition, maldistribution, retention, and gender) according to study, and factors influencing decentralised HRH. The excel matrix helped to systematically organise the information in the papers and to report on the findings according to themes that were identified based on either the quantity or quality of information in the selected articles. Furthermore, the selected articles were stored in a reference manager (Mendeley). In addition, all articles about the same theme were reported under the same theme in the findings.

Figure 3: Analytical Framework



Source: Sousa et al, 2013 (56) *(adapted from Vujicic 2006 and 2012)* (57)

Chapter 3

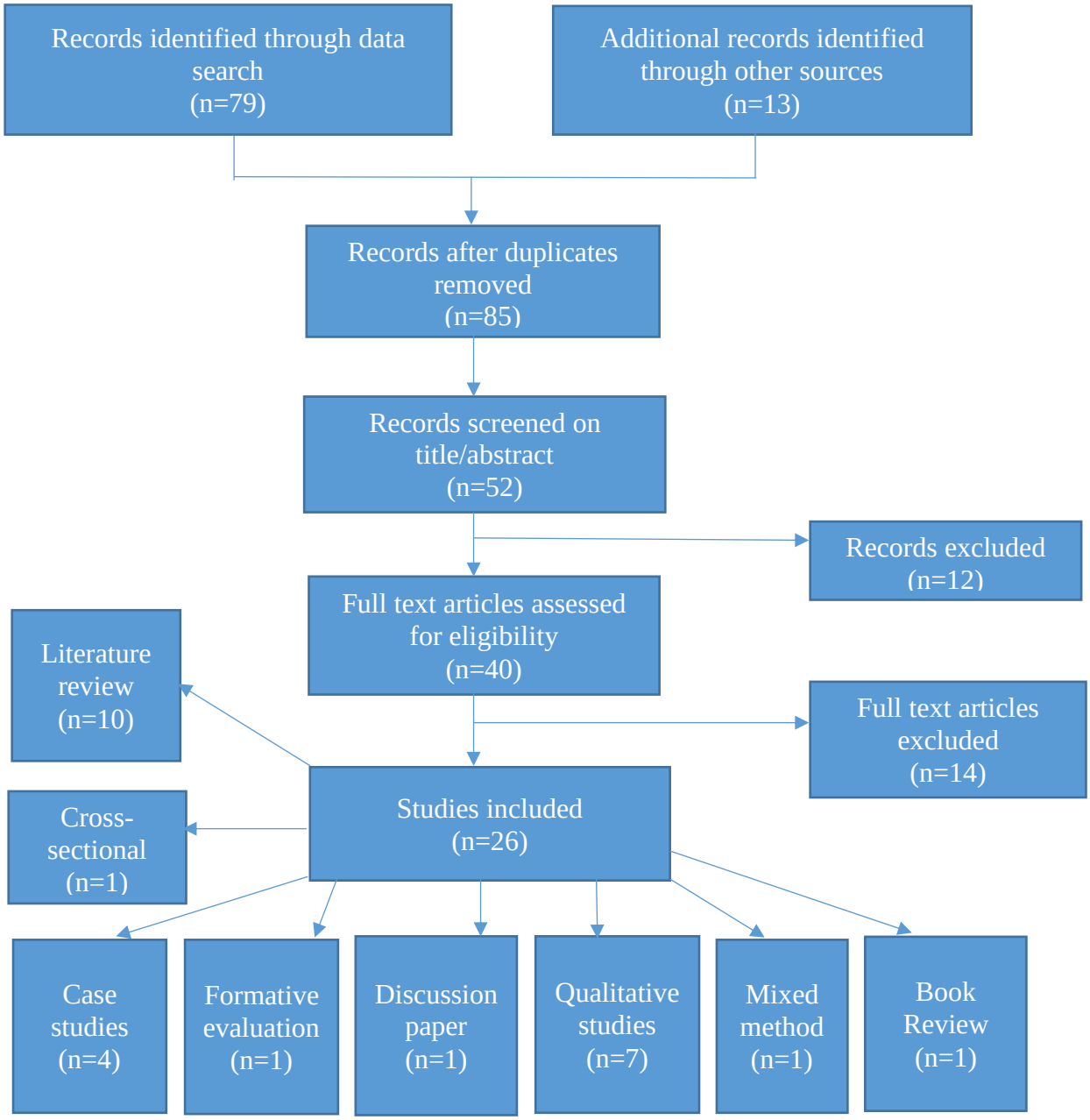
3.0 Study findings/Results

3.1 Overview

In the following paragraphs, the effects, facilitators, and barriers of decentralisation on the 5 dimensions of HRH will be addressed.

The study included 22 peer reviewed journals on LMICs from within and outside sub-Saharan Africa which included; 4 case studies, 1 formative evaluation, 10 literature reviews, 7 qualitative studies, 1 book review, 1 discussion paper, and 1 mixed methods study. Seventy-nine (79) records were identified through a systematic search while the thirteen (13) records were identified through a hand search and a scoping of the literature. Figure 3 below highlights the inclusion and exclusion process.

Figure 4: Flow chart for Inclusion and Exclusion



3.2 Performance

To enhance the performance of HRH, managers in the health sector need to assess staff performance, supervise employees, ensure staff motivation, and intervene when performance gaps arise (58). In addition, managers in the health sector need to ensure that health workers have the necessary tools and equipment to carry out their work (58). However, paying attention to the above issues is usually a challenge especially when decentralisation entrusts management responsibilities to inexperienced human resource managers (58). In some cases, effective staff appraisal systems are not available and if they are available, they are often outdated and poorly understood by health workers (59). An experience with decentralisation in some developing countries has been that, there was reduced technical capacity in management, inadequate supervision responsibility, and reduced technical support to lower levels of governance in the health sector (60)(61). This has been attributed to a scenario where some health programs are decentralised while others remain centralised (58). In some instances, when particular health programs are decentralised, there has been tension and conflict between those being supervised and their new local health manager (58). This is usually the case when health workers indirectly oppose the policy of decentralisation and fail to move on from old allegiances (58). In addition, our findings suggest that, to a large extent, decentralisation demands new skills particularly in the competence of managers (58). However, responding to these demands, especially through training is often a challenge (58) which is also exacerbated by a lack of funds and capacity to effectively plan and implement programs at local health level (62). Another finding showed that, in several developing countries, decentralisation had a negative impact on existing supply chains for drugs and supplies, and transport which are in fact, essential for good performance and productivity of health workers (63). This has been due to reduced funding and cumbersome procurement procedures from national levels (64). Further, when decentralisation is implemented rapidly, staff motivation is affected negatively as health workers tend have a perception that their incomes and working conditions will be negatively impacted (58). Furthermore, it has been shown that most managers in decentralised health systems pay little attention to addressing issues like number of working hours, working conditions, and career development plans that can contribute to positive and long-term effects on staff performance (65).

3.2.1 Performance Management

It is said that the most effective way to have effective performance management of staff is to also have an external assessment of the performance of a decentralised health institution (66). At institutional level, this is usually introduced with decentralisation (66). For example, the Philippines started a comprehensive Health Care Agreement (CHCA) under the department of health (66). After implementation, it was noted that, in a decentralised health system, both service performance and individual staff performance were adversely affected by inadequate resources, this is supported by Kolehmainen-Aitken (67) who researched experiences from ten LMICs (67).

3.2.2 Performance conditions

It has been found that decentralisation can have a negative repercussion on timely payment of salaries and the availability of other necessary resources (40). This was experienced in the Philippines and Papua New Guinea (40). As an example, the church in Papua New Guinea provides health services which are integrated in the public health system to over half of the rural population and receives government grants as a subsidy (40). However, reforming the health sector through decentralisation could not clearly stipulate as on whose responsibility it lay to pay these grants, whether the provincial or district local governments (40). There were a number of times when the church did not receive the grants and this laid to severe financial situations where the church health workers went without pay for several months (40). This was even made worse by the failure of the national/central health office to intervene on time (40). Consequently, the church shut down their clinics because health workers could no longer provide their services (40).

In the Philippines, it was also observed that decentralisation had a negative effect on the financial entitlements of health workers (40). It was clear that the financial base of the local governments was inadequate to meet their obligations (68). In part, this was due to the fact that the cost of decentralisation was not consistent with the mechanism used at national/central level to allocate revenues to local governments at provincial and district level (40). As a result of this, resource constrained local governments could not pay salaries (40). Notably, the chief executive officers of local governments were not keen to mobilise extra financial resources because the financial emoluments of decentralised health workers were seen to be much more than the emoluments of mayors (40). This became apparent that without a favourable working environment, it is difficult for health workers to perform effectively and to provide competent health service delivery (40).
In Papua New Guinea, budget cuts had a negative impact on provision of transport (40). This led to health workers not being able to provide health promotion and prevention activities (69). In 1994, a survey was conducted involving 5,600 respondents to assess the impact of decentralisation on health services (40). Of the respondents, 46 percent were of the view that, with the coming of decentralisation, drugs and medical supplies were never supplied consistently in the emergency room while 64 percent reported non-availability of drugs in the operating theatre (68).

3.2.3 Performance Appraisal

In appraising the performance of health workers in a decentralised health system, there are cardinal issues that arise like job descriptions and appraisal procedures (66). In rural China, it was reported that different appraisal procedures and systems were used in different counties (66). For instance, from the time decentralisation was adopted, some counties use performance appraisals for identifying and laying off health workers who are said to perform below expectation and yet, other counties use performance assessments to identify health workers who might need additional support to improve their individual competencies (66). To enhance staff performance in decentralised health systems, financial incentives like bonuses have been used in some developing countries (66). However, financial bonuses are a controversial issue (66). For example, financial bonuses were introduced in Guatemala after decentralisation but had to be stopped as they proved to be divisive (70). In Zimbabwe (with decentralised health system), performance appraisals linked to remuneration and promotions were rejected as health workers associated it to nepotism, sub-standard performance assessment procedures (71)

3.2.4 Competence

In decentralised health systems, it has been shown that ensuring both technical and managerial competence of HRH is challenging (40). As a system of reform, decentralisation gives rise to a number of complex situations, which on their own or in combination with one another, might complicate the competence of HRH in discharging their new post-decentralisation duties (40). The first issue that may arise is the shortage of health workforce (40). The newly introduced organisational structures need a quantity and quality of technical health managers who might not be readily available (40). In some cases, this shortage in the number of health staff is exacerbated by the reluctance of skilled workforce like medical officers to relocate from urban centres (40).
In a situation where a country with a decentralised health system engages expatriates as a remedy, these face challenges in sustaining their technical competence because of their limited knowledge of local language, culture, and sometimes lack of support from the local health workers (40). However, even when the numbers of staff at central or provincial level maybe adequate, the managers may not have the required set of skills needed in a decentralised context (40). It has also been highlighted that, HRH managers at central level need to be skilled in policy-making, monitoring and evaluation while the lower-level staff require much of operational and entrepreneurial attributes (72).
A common finding in some countries with decentralised health systems is that most if not all training programs are directed at low-level HRH so that, capacity building for national/central level HRH is lacking (73). It has also been shown that lower-level HRH have little relevant management experience and training offered to them (40). If these

cadres have access to trainings, then the trainings are usually uncoordinated, somewhat theoretical, and mainly offered through workshops and seminars (40). In addition, such training activities are usually through vertical programs with support from the donor community (40). An observation of these training programs is that they do not provide the much needed practical skills and tools for effective management as very little effort and time is accorded to apply new knowledge in their local work settings (74). An exception to the above mentioned observation is in the case of Papua New Guinea where, after decentralisation, a faculty at the University of Papua New Guinea started offering a diploma in community medicine with the aim of equipping HRH for senior management positions at provincial and district level (75). In some instances, some managers in the health sector could have enough managerial competencies and experience but then most of the required resources are controlled at national/central level (40). In this case, some newly trained health managers have no opportunity to use their new skills, this makes them to get frustrated and end up leaving the health institutions (40). Then, if the number of skilled staff reduces, so does the technical quality of health care delivery (40). This could be mitigated by the availability of adequate resources to train and replace those that are leaving (40).

Another aspect of health workers in decentralised health systems is the issue of shifting roles (40). Shifting roles has been found to distort the quality and frequency of technical support and supervision that health care workers receive (40). Conceivably, the hardest shift is in a situation where previously, supervision was based on professional lines of authority (e.g. medical officers supervising medical officers, nurses supervising nurses) but in a decentralised setting, the local health workers operate in a dual supervision system (40). In this particular scenario, supervision on administrative issues comes from the local chief executive officer, who is not necessarily a health worker, and the technical guidance comes from national/central level at the ministry of health (40). An experience with decentralisation and the dual system of supervision is that, there is an unclear distinction between the two but raises significant workplace challenges (40). Further evidence also suggests that, poorly advised administrative decisions are sometimes in conflict with the technical guidance, in this case, the technical quality of health care delivery is compromised (74).

In Papua New Guinea, it was noted that, when health workers at district level were supervised by District Assistant Secretaries (DASs), there was no consensus as to who should be responsible for monitoring and evaluating the quality of health services (40). In most cases, staff at provincial and district level complained about lack of adequate technical support, effective supervision, and about the improper decisions by the DASs (40). According to these staff, the quality of health care services were worse after decentralisation (40).

It is said that decentralisation could impact negatively on issues of hiring, performance management, and staff discipline at local decentralised levels (40). In this case, competence no longer becomes a yardstick for hiring and reward (75). It was shown that, even when nepotism and favouritism existed decentralisation, an experience in a number of countries is that these vices became more difficult to resist (40). This was compounded by the fact that local health managers and local politicians live and interact within the same small local jurisdictions (40).

3.2.5 Responsiveness

Decentralisation together with other strategies to enhance community involvement would provide a better fit between prevailing conditions in a community, demands of the clients, and health services (76). With regard to HRH in Tanzania, it was found that decentralised recruitment was better that centralised recruitment as it enhanced equitable distribution of health staff in the districts (77). In Mali (with decentralised health system), local governments oversee all developmental plans and the provision of social services (78). To do this, they collect data on the needs of the local population through community planning going upwards (78). It is this data that helps the local health office to respond to the needs of the communities (78). In addition, this information helps to close the gap between the specific needs of clients and the allocating appropriate numbers of health staff (78).

Further, the district health office appreciates the efforts of the local government in hiring temporal workers such as vaccinators and malaria outreach officers in times of need and dependant on social, economic, and ecological conditions at the time (78). Such efforts enhance health worker responsiveness to the specific needs of their client populations (78).
In one study conducted in Nigeria, it has been shown that health workers demonstrate reasonable levels of responsiveness to their patients (79). However, the same health workers attested to the fact that the services they provided were not timely (79). Therefore, health workers have to show the ability and the will to comprehend and address the emotional and clinical needs of their patients (79). In light of this, another study suggests that the reasons for the untimely delivery of services is mainly attributed to the following factors; excessive workload, low staffing levels in health facilities, and erratic or inadequate supply of drugs and equipment which are the prerequisites for good performance (80). Another cardinal finding was that health care workers need to respond to the needs of the communities in which they serve, within an enabling environment (79). This environment must be one that takes into account both the technical and client satisfaction issues if quality of services is to be assured (81).

3.2.6 Availability

In assessing the performance of HRH, the availability of health workers is an important aspect (79). However, it is crucial to realise that the availability of HRH is not able to enhance the health outcomes of clients on its own (79), in order to do so, there has to be adequate supplies of drugs, well-functioning health facilities, and evidence informed clinical practice (82). It has also been shown that, the performance of health workers can play a vital role in improving the health status of their populations when combined with a resilient health system and management of social determinants of health (82). Further, another finding showed that, there is a correlation between the available number of health workers and the capacity of health systems to provide health services, for instance, as the number of health workers decreases, the ability of health systems to render services also drops (54)(83). Therefore, a reduction in numbers of health workers results in low quality health care and increased waiting times for clients (84).

3.3 Retention

In general, LMICs face a huge problem in retaining their HRH from both the international brain drain and rural-urban migration within nations (85)(86). The retention of HRH, especially medical officers is a challenge faced by many developing nations with poorly managed decentralised health systems (87). A study in Tanzania showed that decentralisation failed to ensure retention of medical officers in rural areas and there was an observed effect of maldistribution of HRH in general (87). Due to this experience, Tanzania recentralised its recruitment processes (78). However, other countries such as Mali have actually strengthened their decentralised recruitment procedures (78). Mali has done this by harmonizing conditions of service and by regulating competition between local governments, and between local governments and central government (78).

In Nigeria, a study showed that decentralisation had the two (2) main effects on retention of HRH; first, salaries of primary health care workers are not paid on time and are usually irregular because of the bureaucracy of transferring funds from central government level to district level (88). Further, the role of PHC tends to be left to the weaker tier of districts which results in workers being attracted to central level in urban areas (88). Furthermore, community health committees have been seen to influence the retention of health workers by increased demand of PHC services in rural areas (88). In addition, the community could indirectly increase retention of workers by facilitating social, financial and accommodation support to health workers (88). Other than this, the community initiates or collaborates to co-finance and manage PHC services in order for the health system to remain functional at the district level of a decentralised health institution (88). Notwithstanding, strategies

to improve retention of HRH should be done after a thorough analysis of contextual factors (88).

We identified the following factors as hindering the retention of medical officers in rural areas; unfavourable working conditions, poor working environment, lack of opportunities for career advancement, lack of community support especially in securing houses for rent, and lack of social services or amenities (89)(90). In addition, we found that some of the strategies used to retain medical officers in rural areas could be; career plan development, financial incentives, and options for private practice in district hospitals (87). However, Lodenstein and Dao suggest that incentives such as good housing, transport and other incentives in kind are only effective in attracting low cadre staff to rural areas but not medical officers (78).

However, the following strategies were identified as the most effective; career growth opportunities, standard financial incentives, and availability of good social services (87). In some settings, recruitment and training of medical officers in rural areas is one strategy that has been used to ensure retention of these cadres (91). For instance, Thailand, with a decentralised health system, had a plan to train 300 medical officers annually to be deployed in rural areas (91). This strategy entailed students to sign contracts that obliged them to serve in rural areas for a period of two to four years after graduation (91). In this case teaching hospitals were established around the country to be conducting the trainings (91). Through this programme, students are required to do their practical trainings in areas they are expected to work when they graduate (91). This enables the students to familiarise themselves with their future working environments (91). This initiative has contributed to the significant increase in the number of students in rural areas who are also willing to be stationed in those areas (92)(93). However, two problems were identified with rural recruitment (91). First, it was observed that students coming from poor families in rural areas had challenges in coping with the competitive nature of medical examinations (92)(93). Second, of the students from rural areas, the majority came from relatively well-to-do families (92)(93). Similarly, Cuba through the 'Escuela Lationoamerina de Ciencias Medicas' recruits students from poor families, indigenous communities, and underserved areas in Africa and the Americas (91). However, very little is known about the effect of this scheme (91).

3.4 Skill mix/Staff mix

Skill mix can refer to mixing posts in the staff establishment, mixing staff in a particular post, the mix of skills available at a particular time, or the combination of skills available that constitute specific roles (94). Adoption a strategy of staff mix is an expected outcome in a decentralised health system (66). This is usually motivated by the urge to save costs related to human resource (66). In Uganda, it was reported that that was very little evidence to suggest that there were necessary changes to adopt staffing mix when the health sector reform on decentralisation was adopted (95). Similarly, in Mexico, no changes in staffing mix were made and job descriptions and work schedules were not adjusted (96). Therefore, it seems that the urge for changes in the staff mix may be driven by other factors of initiatives (66). For instance, in Zambia, changes in staff mix were adopted as a response to the essential health package program (97). In Malawi, changes in staff mix were driven by a shortage in skilled health workforce, because of the shortage, the country's health system started re-skilling low qualified health personnel (98) like the coming up of positions for nurse practitioner in the republic of south Africa (99). Notably, the opportunities that arise from decentralisation in making efficient use of human resource may be jeopardized by other external factors such as; budget cuts from national/central level to local governments, failure by local governments to raise revenue from local resources, and the inability of local government to attract qualified young graduates (100). Further, an experience in rural China showed that health managers were using their influence to appoint friends and relatives who were not qualified to provide health services (101)

3.5 Gender

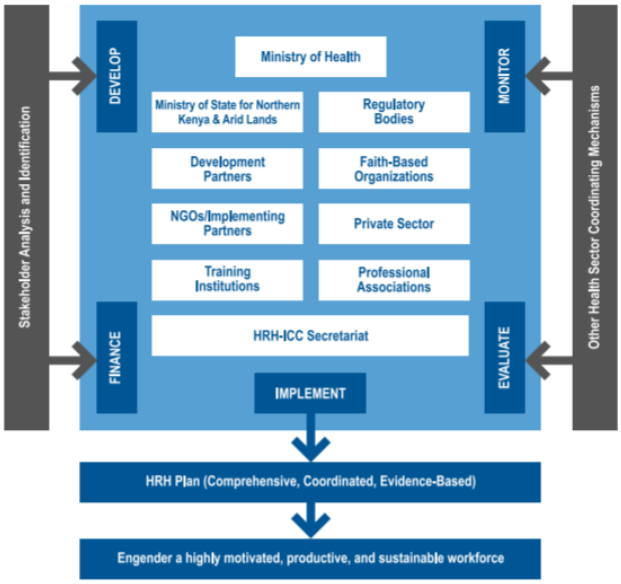
The UNs set their goal of achieving gender equity and empowering women and girls by the year 2030 through the SDG number 5 (102). However, it has been noted that gender inequity still abounds in many settings and HRH is not an exception (103). Further, in spite of an upward surge in the number of women in the health sector (104)(105), both horizontal (staff in each gender category in specific positions) and vertical (relating to dominant males in the highest ranked positions) there still exists a significant segregation in workplaces with regard to gender (106). One study suggests that gender-related trends and progress are not usually highlighted (107). This is attributed to lack of attention from HRH managers' and researchers' (107). It has been said that in order to redress this scenario, there is urgent need for health institutions to adopt sex and age categorisation of data aimed at highlighting gender dynamics that include, but not limited to; gender discrimination and inequalities (107). However, experts in HRH note that addressing imbalances in gender is not an easy undertaking but at the same time, they attest that strengthening gender equality would contribute to increased staff numbers and skill-mix composition in the workplace (108).

The Alma Ata summit boosted the concept of PHC in 1978 (109), and a significant theme has been to democratize the health systems and for health workers to be representative of the populations they serve (110). Imbalances in this entails that demographics in health workforce would easily fail to mirror cardinal variations in issues of ethnicity and gender with regard to their client population (110). The repercussion is that sections of the population will be under served (111). It has also been noted that health authorities could intervene to address health workforce imbalances in gender (110). However, in decentralised health systems, such efforts are generally weaker than the authorities realize, this is usually attributed to an overreliance on central administrative structures which dictate the production and deployment of health workers to lower levels of governance, which is not often consistent with transitioning, decentralising countries (110).

3.6 National Coordination and Facilitation

In 2008, the WHO noted the lack of inter-sectoral coordination for the governance and planning of HRH (112). Therefore, the first Global Forum on HRH encouraged member states to adopt the Country Coordination and Facilitation (CCF) approach (112). The aim of the CCF was to maximise the use of scarce human resource, so that, by establishing these, support would be given to governance structures to coordinate and collaborate to plan, implement, and monitor workforce planning, development and retention (113). As an example, Kenya devolved the entire health system and through the Ministry of Health (MoH) and with support from cooperating partners established the National HRH Inter-Agency Coordinating Committee (HRH-ICC) (112). The HRH-ICC has so far been effective and efficient in planning, management, and system and policy development of HRH (112). In addition, one other benefit seen in Kenya is increased consultation and collaboration between counties at local level, to discuss and identify interventions to major HRH challenges in the context of devolution (112). The country has also managed to strengthen its health system by using the HRH Coordinating framework which has contributed to; accelerate the development, customisation and disseminating policies, national/central level mentorship to colleagues at county level, and effective collaboration in resolving HRH issues among stakeholders (112). Refer to figure 4 below.

Figure 5: Coordination framework



Source: Coordinating health workforce management in a devolved context, 2020 (112)

Chapter 4: Discussion

4.0 Overview

The objectives of this study are to explore experiences, successes, and barriers in LMICs with HRH in a decentralised system of governance, in particular with regard to performance, productivity, skill mix, gender and retention of HRH. Further, the study intends to recommend strategies to set up or improve health service delivery in districts through improved HRH to the ministry of health in Zambia.

The main findings were that, performance may be influenced either positively or negatively by the availability or non-availability of funds at a local decentralised level, the effects of dual supervision of HRH is of significant concern, retention of HRH in rural areas is a common problem with decentralised health systems, and effective governance and planning of HRH requires a structure for inter-sectoral coordination.

Our review of the literature did not find any relevant information on productivity of HRH and decentralisation, while information on gender with regard to decentralisation was not sufficient. Further, results show information on skill mix in terms of staff mix. The findings also brought out an important emerging issue that was not directly linked to the specific objectives of the study. That is; the need for adoption of a country coordination and facilitation approach to facilitate decentralised governance of HRH.

This section starts by looking at the relationship between availability of financial and material resources, and performance of health workers. This is followed by a discussion on dual supervision of health workers in decentralised health systems. Thereafter, a discussion on retention of medical officers in rural areas follows. Last but not least, the section covers the role of country coordination and facilitation in HRH in decentralised health systems.

4.1 Performance, financial and other resources

As the findings suggest, in order for performance to improve in a decentralised setting, a number of resource constraints need to be addressed. This is attributed to budgets cuts in the grants received from national/central level. The lack of sufficient funds at local government level has a negative effect on both health worker and institutional performance as it impacts negatively on the supply of drugs and medical supplies, equipment, and availability of transport. Further, a lack of funds has a negative effect on the performance of health managers as the local governments cannot provide trainings to enhance their competencies. In addition, it is difficult for local governments to provide a favourable working environment if they are resource constrained.

To ensure increased productivity and performance of HRH, devolution of the health sector must have sufficient financial and other resources as well as appropriate organisational structures with clearly defined roles and responsibilities (40). However, most often than not, problems arise when these roles and responsibilities are disputed (40). The other problems that could arise include shortage of staff, this could be exacerbated by the reluctance of some health workers to move from the positions they held prior to devolution or simply oppose to be devolved (40). In one study, results showed insufficient professional supervision from heads of local government to health workers in a decentralised (114). Moreover, motivation is another factor that influences both performance and productivity of decentralised health workforce (77). This is especially a challenge in developing countries where devolution tends to place management responsibilities to managers who have little or no training or experience in human resource management (77). Further, it is uncommon to find good performance management in the civil service of most developing countries because of absence of prerequisites such as decent salaries, and availability of drugs, equipment and transport (115). Evidence also suggests that devolution affects the availability of supplies, drugs and transport which have an impact on good staff performance and productivity, this has been attributed to budget cuts to local authorities and bureaucratic procurement systems (68). In addition,

staff appraisal systems are usually outdated, not sufficiently understood by staff or merely used as a routine exercise (64). In most instances, devolution has led to reduced capacity for technical supervision and reduced number of supervision visits (60)(114). This has usually been attributed to the decentralisation of health programs and others remain at central level (77). However, even when all programs are decentralised, staff have a tendency to have a longing for old allegiances prior to devolution thereby creating conflicts with new managers (77). Devolution also demands new skills in manager competencies but the capacity of local managers to adjust, coupled with other performance gaps is often restricted due to lack of funds for trainings for instance (116).

4.2 Dual supervision

The findings suggest that, with decentralisation of the health system comes the issue of dual supervision (40). This is where the heads of the health/public health department under local government receive administrative supervision from the heads of local governments in a district, municipality, or county and at the same time, they receive technical supervision from health managers either at provincial or national/central level at the ministry of health (40). One challenge observed with dual supervision is the conflict that arises as to who is responsible for monitoring the quality of health services, and because of this, conflicts arise between administrative and technical decisions at local government level (40). As a result of this, we feel that it is possible that working relationship of health managers and local government chief executive officers becomes unfavourable. Another aspect that comes with dual supervision is about 'who is supposed to supervise who'? (40). For instance, the researcher argues that medical officers have a perception that they are more qualified in their field and as such, cannot be supervised by local government chief executive officers who in most cases are not very qualified as they are not always appointed on merit. In some cases, this dual relationship is resisted by devolved health managers who feel that because they earn more money than their counterparts in local government, they cannot be supervised by them.

4.3 Retention of medical officers in rural areas

We have seen in the results section that, in Low-Middle-Income Countries (LMICs), attracting health workers is a challenge, especially in rural areas (117).
The shortage of health care workers has led to a decrease in the quality and type of health care services in communities (118) and we did not find literature that discussed how decentralisation can improve retention. According to the author, decentralisation efforts could look into interventions that have proven effective in rural retention.

Wilson et al classified a list of interventions that could be used in combination between the different classifications to address inequitable distribution of medical officers as shown in figure below (119). The combination of Interventions to enhance retention of health workers in rural communities has shown to improve competencies (120)(121) and job satisfaction of health workers (122). Moreover, some studies suggest that there are positive effects with regard to health service delivery in terms of; improvement in quality of care, reduction in the number of referrals, and a reduction in patient waiting time (121)(123).

In addition, rural-based medicine was tried as an intervention to enhance retention of medical officers in rural areas (124). In one retrospective study on medical graduates from normal and rural training tracks, it was found that those in the rural track had a lower resignation and a higher rural retention rate at HR 0.456, $P<0.001$ and OR 2.192, 2.719 than their counterparts in the normal tracks (124). In addition, the WHO suggested that interventions in the education sector plus deliberate policies are key to improving the retention of health workers in rural areas (125). The WHO also stresses the importance of policy alignment and coherence at national level so that health plans should be aimed at producing and distributing appropriate health workers so as to respond to the health needs and health seeking behaviours of citizens in rural communities (125). In addition, the Africa Regional WONCA (World Organisation of Family Doctors) conference held in 2009

referred to rural-based family medicine as an urgent need in Sub-Saharan Africa (126). However, it was noted that a wide range of post graduate trainings in Sub-Saharan Africa were copied from developed countries in Europe and elsewhere and that, this practice must be adopted with caution because some might not be applicable (127). For instance, chronic, non-communicable diseases form a greater health burden in high income countries (87%) compared to LMICs (54%) (127). Added to this, the prevalence of non-communicable diseases is higher in high income countries which have more people above the age of 65 compared to LMICs in Sub-Saharan Africa (127). However, the burden of non-communicable diseases in terms of mortality is higher in LMICs when looked at in absolute numbers. Other than this, the pattern of disease, availability of general HRH and specialists is completely different in Sub-Saharan Africa and Zambia in particular (126). Proponents of rural-based family medicine argue that medical trainings should therefore have both an urban and rural-based medicine track in Sub-Saharan Africa (126). Furthermore, it is said that the urban track could follow from high income countries while the rural-based track could be aligned to local settings with an extension of skills such as paediatric health, public health, ophthalmology, psychiatric and ENT (ear, nose and throat) as an example (128).

Table 4: Interventions for retention of HRH in rural areas

Category of intervention	Examples
A. Education and continuous professional development interventions	Building of a medical school in rural or remote area
	Recruitment from and training in rural areas
	Targeted admission of students from rural background
	Early and increased exposure to rural practice during undergraduate studies (diversification of location of training sites)
	Educational outreach programmes
	Community involvement in selection of students
	Support for continuous professional development, career paths
B. Regulatory interventions	Compulsory service requirements for health professionals (bonding schemes)
	Conditional licensing (license to practice in exchange of location in rural areas for foreign doctors)
	Loan repayment schemes (paid studies in exchange of services in rural areas for 4-6 years)
	Increased opportunities for recruitment to civil service
	Recognize overseas qualifications
	Policies enabling the production of different types of health workers (mid-level cadres, substitution, task shifting)
C. Financial incentives (direct and indirect)	Higher salaries for rural practice
	Rural allowances, including installation kit
	Pay for performance
	Different remuneration methods (fee for service, capitation etc)
	Loans (housing, vehicle)
	Grants for family education
	Other non-wage benefits
D. Personal and professional support	General improvement in rural infrastructure (housing, roads, phones, water supplies, radio communication etc
	Improved working and living conditions, including opportunities for child schooling and spouse employment, ensured adequate supplies of technologies and drugs
	Strengthening HR management support systems
	Supportive supervision
	Special awards, civic movement, and social recognition
	Flexible contract opportunities for part-time work
	Measures to reduce the feeling of isolation of health workers (professional/specialist networks, remote contact through telemedicine and telehealth)

Source: WHO (125)

4.4 Country coordination of HRH

In decentralised health systems and for purposes of governance and planning in HRH issues, it is necessary to have a mechanism-sectoral coordination. The most appropriate mechanism is the adoption and implementation of a country coordination and facilitation approach. This approach has been used and it has proved useful in a number of low-and-middle income countries with decentralised health systems around the world. For example, Indonesia had its local governments establish provincial and multi-stakeholder committees and working groups using the country coordination and facilitation approach for the development of HRH (129). In using this approach, some of the positive effects that were observed included; mapping of existing numbers of HRH and making estimates of required numbers in health facilities, and helped to establish scholarship schemes for specialists and nurses with bonding arrangements to rural areas (129). However, the approach had challenges like; frequent changes of stakeholder representatives and having to deal with diverse views and concerns from stakeholders on the importance of HRH issues in a devolved context (129). Other than this, evidence suggests that Indonesia has made significant progress in HRH development and countries like Cameroon have adopted a similar approach (130). Lessons learnt from the experience in Indonesia include; coordination and facilitation fosters a shared vision, accountability, ownership and policy dialogue among the stakeholders, and creates awareness on action to improve the quality, quantity, and equitable distribution of HRH, countries can improve their HRH situation, and ensure and sustain PHC and UHC through stakeholder coordination concept (129).

In Pakistan, the health system was decentralised and in 2010, the CCF approach was adopted (34). Here, the aim of the CCF was to address a number of HRH challenges like; rural-urban maldistribution, limited coverage of PHC in urban settings, international brain-drain of skilled HRH, and lack of stakeholder coordination (34). The main challenges experienced with the CCF approach in Pakistan were; conflict of interest among stakeholders, stakeholders failing to understand their roles on HRH issues, poor communication among stakeholders, and complex provincial and federal links (34). Noteworthy, the lessons learnt include; consultative meetings were found to be very useful, centralised capacity building of stakeholders, the need for ownership of the CCF approach proved useful, and HRH information systems needed for informed policy making (34).

Chapter 5

5.0 Conclusion and Recommendations

Decentralisation of the health sector is a common feature of many LMICs. In Zambia, primary health care has been decentralised to local government at provincial and district level and implementation is in its early stage.

In the case of HRH, most of the functions are still controlled at national/central level. These include, recruitment, posting, transfers, and disciplinary actions among others. Human resource is an important aspect of a decentralised health system that can influence positive or negative outcomes in the provision of health service delivery.

In this study, aspects of HRH that were reviewed included; performance, productivity, skill mix, gender, and retention. This was done by exploring the experiences of LMICs with decentralised health systems. Through this, it was noted that decentralisation could have both positive and negative outcomes depending on context.

One common feature of decentralised health systems in various LMICs showed that the performance of health workers is largely dependent on the availability of financial, human, and other resources. Further, it was noted that, to facilitate positive outcomes, it is important to have competent health managers at district local government level. Their competence could be enhanced by specially tailored programs. In addition, retention of HRH in rural areas is an issue that needs to be carefully addressed, if not, a decentralised local health system may suffer from staff shortages and maldistribution. Furthermore, an emerging issue suggested that effective governance and planning for HRH needed to be complemented by a system that coordinates HRH activities at national/central, provincial and district level.

The results also highlighted the different dimensions of health worker performance and these are; productivity, competence, availability and responsiveness. However, no relevant information was found on productivity and availability of HRH in the context of decentralised health systems in LMICs. Added to this, very little information was found on gender perspectives in relation to decentralisation.

An aspect of dual supervision of health workers was also a common feature in decentralisation. A situation where health workers report to chief executive officers of local governments on administrative issues while at the same time, they report and get guidance on technical issues from health managers either at provincial or national/central level at the ministry of health. However, the challenge was to get enough information on ways to mitigate dual supervision in the health sector.

Further, it was shown that attracting and ensuring the retention of health workers in rural areas was a major problem in the health sector of LMICs. Evidence suggests that most of the causes of poor retention are known and there are a number of evidence informed interventions that can be used to enhance it. However, the main finding was that, strategies might not be generically applied and should be seen in the context of particular countries. An important intervention that arose to increase retention of health workers especially medical officers was the introduction of rural-based medicine. Studies have shown that rural-based medicine for medical officers should be given utmost importance as it has been applied with positive outcomes in countries like Papua New Guinea and Thailand. However, to achieve this might require significant investments in training infrastructure, introduction of new curriculum, having a significant pool of eligible candidates from rural areas and an addition of incentives.

Last but not least, an emerging issue from the findings was the need to introduce a system for coordinating all human resource issues at all levels of governance, that is, national/central, provincial, and district level. This mechanism has been implemented successfully in countries such as Kenya, Cameroon, Pakistan, Indonesia and Thailand. The main purpose of this mechanism is to ensure inter-sectoral coordination, and governance and planning for all HRH issues. However, in countries where it was implemented, it proved

useful in mapping of required numbers of health workers in health facilities, addressing international brain drain of skilled health workers, and ensuring an equitable distribution of HRH. However, some of the challenges experienced with the country coordination and facilitation approach included; difficulties bringing together a heterogeneous group of stakeholder, complex linkages between provincial and federal states, and the failure by stakeholders to understand and appreciate the important role of HRH in decentralised health systems.

In view of the above, our recommendations are;

a) In order to enhance retention of HRH, the ministry of health needs to come up with specific actions that could attract medical officers and other cadres to rural areas. This came be done by; setting up training institutions in rural areas and encourage recruitment and training of students coming from those specific locations and curriculum for rural-based medicine introduced. Once trained, the students can be bonded to work in those areas for a period of between 2 and 4 years. In addition, the local government authority must ensure the availability of social amenities in the said rural areas. This is one of the main factors that is said to attract HRH in rural areas. Further, the ministry of health can provide opportunities for HRH in rural areas, e.g. provision of scholarships for further training upon completion of compulsory service.
b) In order to effectively coordinate HRH issues, the ministry of health should spearhead for the creation of a quasi (semi-autonomous) institution to undertake this activity. This institution can be at district level and coordinated by a provincial office.
c) In order to enhance the performance of health workers, the district local government offices must be empowered to create an enabling environment. To do this, local government offices must be proactive and enterprising to engage in revenue generation activities to supplement the grants coming from national/central level. In addition, the district health offices must be empowered to conduct their own procurement processes in order to reduce on bureaucracies at national/central level. When this is done, it will be easy for districts to control the supply chain for procurements. This will in turn ensure a steady supply of drugs and other medical supplies.
d) Further research is needed to understand the influence of decentralisation on gender and productivity of HRH

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Annex

Annex 1 Excel data extraction sheet

Articles					
Author	**Title**	**Year**	**Type of Study**	**Country**	**Study Objective**
George William Lutwama1 , Janetta Hendrika Roos2* and Bethabile Lovely Dolamo2	A descriptive study on health workforce performance after decentralisation of health services in Uganda	2012	cross-sectional descriptive survey	Uganda	To investigate the performance of health workers after decentralisation of health services in Uganda in order to identify areas for improvement. Specifically, the study aimed at examining the performance based on the WHO dimensions of availability, productivity, competence and responsiveness. The study also aimed at identifying the behaviours of health workers that facilitate or hinder their performance
Riitta-Liisa Kolehmainen-Aitken	Decentralization's impact on the health workforce: Perspectives of managers, workers and national leaders	2004	Literature review		…….. aims to examine evidence from published literature on decentralization 's impact on the demand side of the human resource equation, and the factors that have

					contributed to this impact
GEORGE WILLIAM LUTWAMA	THE PERFORMANCE OF HEALTH WORKERS IN DECENTRALISED SERVICES IN UGANDA	2011	Qualitative study	Uganda	The aim of this study was to investigate the performance of health workers in order to come up with a management framework that may be used by stakeholders to improve performance in the decentralised services in Uganda
Saide MAO, Stewart DE	Decentralisation and Human Resource Management in the Health Sector	2001	Qualitative study	Mozambique	… aims to identify human resource management practices in a decentralised context and to identify whether best practices are possible in the health sector
Doug Campos-Outcalt, Kewa K, Thomason J	Decentralization of health services in Western Highlands Province, Papua New Guinea: An attempt to administer health service at the subdistrict level	1995	Qualitative study	Papua New Guinea	….to describe the current decentralised system of governance
Maggie Huff-Rousselle	Myths and realities of decentralised health systems	2001	Book review		

Gilson L and Travis P	Author links open overlay panelDougCampos-Outcalt1KellyKewa2JaneThomason3 https://doi.org/10.1016/0277-9536(94)00222-F	1996			
Gustavo Nigenda, Ph.D.1, Jose Arturo Ruiz,B.A.2	The Decentralization of Human Resources and the Health System in Mexico	1995		Mexico	
WHO	Decentralisation and Health System Change: A Framework for Analysis			Uganda	
YAN WANG1 *, CHARLES COLLINS1, SHENGLAN TANG1 AND TIM MARTINEAU	HEALTH SYSTEMS DECENTRALIZATION AND HUMAN RESOURCES MANAGEMENT IN LOW AND MIDDLE INCOME COUNTRIES	2002			
Huddart J, Mbao E	. Chapter 5: Human Resources. In Independent Review of the Zambian Health Reforms Volume II: Technical Reports, Ministry of Health, Government of the Republic of Zambia	1996			
Tim Martineau James Buchan, 2	Human Resource and the Success of Health Sector Reform			Zambia	

	Lake S. 2001. An Essential Health Package for Malawi: Background, Methods, Progress and Issues: An Interim Report for Discussion. MoHP/ UNICEF: Lilongwe	2001		Malawi	
	Mutizwa-Mangiza D. 1998. The Impact of Health Sector Reform on Public Sector Health Worker Motivation in Zimbabwe. Partnership for Health Reform			Zimbabwe	
	Kolehmainen-Aitken R-L. 1999. Human resource development under decentralization. In Myths and Realities About the Decentralization of Health Systems, Kolehmainen-Aitken R-L (ed.). Management Sciences for Health: Boston	1999			
Nathanael Sirili1,2* , Gasto Frumence1 , Angwara Kiwara1 , Mughwira Mwangu1 , Amani Anaeli1 , Tumaini Nyamhanga1 , Isabel Goicolea2 and Anna-Karin Hurtig2	Retention of medical doctors at the district level: a qualitative study of experiences from Tanzania	2018	Qualitative study	Tanzania	The aim of this work was to study experiences regarding the retention of MDs at the district level under the decentralized or partial-centralized health-care sector from the perspective of MDs and health managers

A. Kurniati a,1 , E. Rosskam b,*,2 , M.M. Afzal c,3 , T.B. Suryowinoto d,4 , A.G. Mukti e,5	Strengthening Indonesia's health workforce through partnerships	2015	Formative Evaluation	Indonesia	Indonesia faces critical challenges pertaining to human resources for health (HRH). These relate to HRH policy, planning, mismatch between production and demand, quality, renumeration, and mal-distribution. This paper provides a state of the art review of the existing conditions in Indonesia, innovations to tackle the problems, results of the innovations to date, and a picture of the on-going challenges that have yet to be met
Mathew Kariuki Thuku 1, Janet Muriuki 1, Ummuro Adano 2, Linet Oyucho 3, David Nelson 4	Coordinating Health Workforce Management in a Devolved Context: Lessons From Kenya	2020	Case study	Kenya	describes how Kenya created an inter-county, multi-stakeholder human resources for health (HRH) coordination framework that promotes consensus, commitment,

					and cooperation in devolved HR management.
Seye Abimbola1,2,3*, Titilope Olanipekun4 , Uchenna Igbokwe4 , Joel Negin2 , Stephen Jan2,3, Alexandra Martiniuk2,3,5, Nnenna Ihebuzor1 and Muyi Aina4	How decentralisation influences the retention of primary health care workers in rural Nigeria	2015	Qualitative Research	Nigeria	…..examines how the decentralisation of health system governance influences retention of health workers in rural communities in Nigeria from the perspective of health managers, health workers, and people living in rural communities

WHO	Increasing access to health workers in remote and rural areas through improved retention	2010		Global	The World Health Organization (WHO) responded to calls to action from global leaders, civil society and Member States by convening a group of experts to examine existing knowledge and evidence and to provide up-to-date, practical guidance to policy-makers on how to design, implement and evaluate strategies to attract and retain health workers in rural and remote areas. In doing so, these recommendations support countries in their efforts to improve health outcomes by strengthening the capacity of health systems to provide quality health care that is accessible, responsive, effective,

					efficient and equitable
Riitta-Liisa Kolehmainen-Aitken	Decentralization and Human Resources : Implications and Impact				Analysing implications of decentralisation on HRH
Riitta-Liisa Kolehmainen-Aitken	Decentralization's impact on the health workforce: Perspectives of managers, workers and national leaders	2004	Literature Review	South Africa, Ghana, Indonesia and Mexico	This paper examines evidence from published literature on decentralization's impact on the demand side of the human resource equation, as well as the factors that have contributed to the impac

Javier Martinez, Tim Martineau	Introducing Performance Management in National Health Systems: Issues on Policy and Implementation	2001	Case study		to assess the practice of performance management in a sample of health care organisations from around the world P.1
Gilles Dussault*1 and Maria Cristina Franceschini2	Not enough there, too many here: understanding geographical imbalances in the distribution of the health workforce		Literature Review	Brazil, Mexico, Thailand	Our objective is to offer a better understanding of the determinants of the geographical distribution of health personnel, and to identify and assess strategies to influence it
Scott A Fritzen	Strategic management of the health workforce in developing countries: what have we learned?	2007	Literature Review		reviews lessons relating to strategic management challenges emerging from the growing literature on HRH
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Elsbet Lodenstein & Dramane Dao	Devolution and human resources in primary healthcare in rural Mali	2011	Literature Review	Mali	…...assesses the key advantages and dilemmas associated with devolution such as responsiveness to local needs, downward accountability and health worker retention
Pieter Serneels & Tomas Lievens	Microeconomic institutions and personnel economics for health care delivery: a formal exploration of what matters to health workers in Rwanda	2018	Semi Structured Interview	Rwanda	
Pieter Serneels & Tomas Lievens	Microeconomic institutions and personnel economics for health care delivery: a formal exploration of what matters to health workers in Rwanda	2018	Qualitative Research	Rwanda	to explore which institutional factors may help explain the (often disappointing) performance of health workers, who actively respond to the work environment and incentives they face
S Tornorlah Varpilah1*, Meredith Safer2, Erica Frenkel2, Duza Baba2, Moses Massaquoi2 and Genevieve Barrow1	Rebuilding human resources for health: a case study from Liberia	2011	Literature Review	Liberia	…….illustrates the process, successes, ongoing challenges and current strategies Liberia has used to increase and improve HRH since 2006

Suwit Wibulpolprasert *1 and Paichit Pengpaibon*2	Integrated strategies to tackle the inequitable distribution of doctors in Thailand: four decades of experience	2003	Case Study	Thailand	……..aims to summarize strategies to solve inequitable distribution of human resources for health (HRH) between urban and rural areas

Aspect of decentralised governance of HRH described	Negative and Positive outcomes (Maldistribution, Productivity, Performance, Skill mix, Gender)				Findings	Lessons Learnt	Recommendations of authors for effective decentralised governance of HRH/Recommended Policies
	Positive effects on HRH/ Health system	Contributing factors	Negative effects on HRH/ Health system	Contributing factors			

Performance		WHO dimensions of availability, productivity, competence and responsiveness p.2	poor delivery of health service in the country [9]. P.2 poor health sector performance p.2	absenteeism, neglect of patients, drug pilferage and poor staff motivation p.2	The study revealed that even though the health workers are generally responsive to the needs of their clients, the services they provide are often not timely. The health workers take initiatives to ensure that they are available for work, although low staffing levels undermine these efforts. While the study shows that the health workers are productive, over half (50.4%) of them reported that their organisations do not have indicators to measure their individual performance. The findings indicate that the health workers are skilled and competent to perform their duties. In general, the results show that health workers are proficient, adaptive, proactive and client-oriented p.1		local governments should put in place an efficient mechanism for attracting and retaining health workers especially for the rural areas p.9, Ministry of Health has to set clear indicators for measuring the productivity of the health workers and these should be communicated to all stakeholders in the health sector p.9
					……..the first observation is that decentralization is complex and difficult to pin down as single entity		

Retention of HRH in underserved areas			Decentralisation failed to ensure retention of MDs at the district level, ……..Observed maldistribution of MDs after Decentralisation	……factors include low financial compensation and unsatisfactory working conditions coupled with poor retention mechanisms [10, 11] p.2 , ... poor working conditions and poor social services in rural areas have contributed to the rural–	Retention of doctors in the districts faced the following challenges: unfavourable working conditions including poor working environment, lack of assurance of career progression, and a non-uniform financial incentive system across districts; unsupportive environment in the community, characterized by: difficulty in securing houses for rent, lack of opportunities to earn extra income, lack of appreciation from the community and poor social services. Health managers across districts endeavour to retain their doctors through different retention strategies, including: career development plans, minimum financial incentive packages and avenues for private practices in the district hospitals. However, managers face constrained financial resources, with many competing priorities at district level p.1		Retention of doctors at district level faces numerous challenges. Assurance of career growth, provision of uniform minimum financial incentives and ensuring availability of good social services and economic opportunities within the community are among important retention strategies

				urban migration [11, 12] p.2 .....– unfavourable working conditions, unsupportive environment in the community, and retention strategies by the managers in situations of resource scarcity p.4			

	1. Produced HRH country profile and situational analysis, determining strategic issues and main policies for the development of the national strategic plan on HRH. 2. Mapped exis	….. ..establishing provincial multi-stakeholder committees and working groups for HRH development		Frequent changes of leadership and representatives from various stakeholder constituencies; ▪ Different stakeholders have diverse views and concerns about the importance of HRH issues; ▪ Proactive and regular participation of some	.....bringing about a number of innovations in HRH development to achieve UHC, fostered partnerships, attracted international attention, and galvanized multi-stakeholder support in improving the HRH situation. This approach also has facilitated mobilizing technical and financial support from domestic and international partners for HRH development p.1…….facilitated mobilizing technical and financial support from domestic and international partners for HRH development	...shared vision, ownership, and accountability through consolidated coordination and policy dialogue among key stakeholders; greate	Countries can successfully carry forward their HRH agenda and improve their health workforce situation by applying the multi-stakeholder coordination approach; All countries, irrespective of their geographical or economic status, can benefit from multi-stakeholder coordination to ensure and sustain UHC; Create formal and informal links between healthrelated coordination mechanisms; Continuously advocate for support from decisionmakers to prioritize HRH in health sector policies to solicit commitments and increased investments; Promote information-sharing and policy dialogue among HRH stakeholders in

	ting numbers of health workers in public health facilities and estimated the required health personnel. 3. Developed National HRH plan 2011e2025 that is linked with the nati			of the stakeholders was a limitation in ensuring fully-inclusive engagement; ▪ The private sector's contribution tends to be less compared to public sectors; ▪ Commitment of the multi-stakeholder team has varied, resulting in delay		r awareness about the importance of integrated and synergistic action to improve the quantity, equitable distribution, and quality of HR	order to develop comprehensive HRH polices and plans with broad consensus, collective vision, harmonized roles, and shared accountability; Strengthen the health system by engaging and regulating the private sector, quality improvement, tasksharing, skills mixing, and scaling up HRH to address the problems of remote and rural areas towards achieving UHC; Conduct further research to identify associations between CCF variables and HRH outcomes, as well as the impact of this approach from the viewpoint of other stakeholders and beneficiaries

	onal health policy and provides a roadmap to achieve UHC through action in HRH. 4. Developed Grand Design for improved HRH education (pre-service training) and in-			s in decision-making or setting policies; ▪ Communication with a large number of stakeholders and keeping all on board has been a difficult process for the secretariat; ▪ Some stakeholders have inadequate quality of data on HRH developme		H; country ownership with high level commitment to increased financial inputs and policy support towards HRH; catalytic support	

	service training. 5. Facilitated a joint agreement between three ministries (MoH, Ministry of Home Affairs (MoHA), and MoEC) on HRH development. The agreement is betwee			nt and management. In particular, the lack of well documented data of the private sector and grass-roots level presents a major hindrance in adequate planning and decision-making ▪ Geographical barriers present challenges to establishing decen		promoting and fostering a comprehensive situational analysis and developing an evidence-based national HRH strategic plan, and int	

	n 13 medical schools, 4 dental schools, and 56 heads of districts or city mayors to assure better educational facilities for medical residents, provide training sites for residen			tralizing coordination mechanisms for multi stakeholder engagement; ▪ Potential sustainable financial and other resources have not yet been adequately identified and documented either at national or local levels, or from other sources; ▪ The		egrating HRH in national health policies and plans to achieve both the MDGs and UHC.	

	cies, secure funding for training and incentive schemes, and improve medical and dental services for communities in remote areas. 1144 public health 129 (2015) 1138			secretariat is run by a part-time staff and needs to be strengthened			

	e11496. Facilitated special assignments for health workers (such as a contract scheme and special recruitment for civil servants) to serve in remote, underserved, country border areas,						

	and on small outer islands, including the assignment of senior residents to rural district hospitals. By year 2013, the number of contracted health workers was 46,275 (doctors, dent						

	ist, and midwives) and 3000 medical doctors, including specialists, recruited as civil servants. This resulted in a decrease from 30% in 200632 to 9% in 20136 of the percentage						

	of community health centers not having medical doctors. 7. Increased numbers of HRH registered and certified by the National Profession Board. Since the establishment of this						

	board in 2011, this institution has registered 440,662 health workers (excluding doctors and dentists).338. Facilitated scholarships for medical specialists and nurse training wit						

	h service bonding in rural hospitals. Since 2008, the number of nurses who received scholarships for Diploma 4 training has increased continuously from 110 nurses to 175						

	4 in 2012. The number of medical doctors who received scholarships for specialist training programs by July 2014 was 5895 doctors. 349. Incorporated principles of the WHO						

	Code of Practice on the International Recruitment of Health Personnel, adopted MoH regulations on the Recruitment of Indonesian Nurses to Work Abroad, assigned a national focal poi						

	nt department, and issued a monitoring report. 25 10. Mobilized agreement on developing a national HRH observatory for effective evidence-building required for policy deci						

	sions and monitoring progress.3511. Disseminated information through a national seminar on the Indonesian coordinating Committee, which resulted in an agreement to establish						

	similar committees at province and district levels.36 12. Developed guidelines for establishing multistakeholder committees at local level and provided support to the local						

	governments accordingly						

Governance	….. strengthening its health system through the HRH coordination framework p.1 n (1) expediting development, customization, and dissemination of policies, (2) enabling nati	… …. .hiring over 20000 health workers to address shortages; expanding the national HR information system to all 47 counties; devel			HRH coordination framework has been instrumental in (1) expediting development, customization, and dissemination of policies, (2) enabling national HRH officers to mentor their county counterparts, and (3) providing collaborative platforms for multiple stakeholders to resolve HRH challenges and harmonize HR practices nationwide		Transitioning to fully local funding of inter-county forums is important for sustaining progress p.1

	onal HRH offi cers to men tor thei r cou nty cou nter part s, and (3) pro vidi ng coll abo rati ve plat for ms for mul tipl e stak ehol ders to reso lve HR H chal leng es and har mo nize HR prac tice	opi ng gui del ine s for sha rin g spe cia list pro vid ers ; an d est abl ish ing pro fes sio nal ize d H R H uni ts in all 47 co unt ies p.1					

	s nati onw ide						

Retention	……..Community involvement/efforts to encourage retention by providing social, financial, and accommodation support to health workers in rural areas p.1		Salaries are delayed and irregular, …..rural-urban migration of workers		The results showed that decentralisation influences the retention of rural health workers in two ways: 1) The salary of PHC workers is often delayed and irregular as a result of delays in transfer of funds from the national to sub-national governments and because one tier of government can blame failure on another tier of government. Further, the primary responsibility for PHC is often left to the weakest tier of government (local governments). And the result is that rural PHC workers are attracted to working at levels of care where salaries are higher and more regular in secondary care (run by state governments) and tertiary care (run by the federal government), which are also usually in urban areas. 2) Through community health committees, rural communities influence the retention of health workers by working to increase the uptake of PHC services. Community efforts to retain health workers also include providing social, financial, and accommodation support to health workers. To encourage health workers to stay, communities also take the initiative to co-finance and co-manage PHC services in order to ensure that PHC facilities are functional ..... efforts to improve the retention of rural health workers should be based on in-depth analyses of contextual factors		In Nigeria and other low- and middle-income countries with decentralised health systems, intervention to increase the retention of health workers in rural communities should seek to reform and strengthen governance mechanisms, using both top-down and bottom-up strategies to improve the remuneration and support for health workers in rural communities p.1

Captured for Discussion section	people living in rural and remote locations have access to trained health workers		shortage of qualified health workers in remote and rural areas impedes access to health-care services for a significant percentage of the population				1. Introduce and regulate enhanced scopes of practice in rural and remote areas to increase the potential for job satisfaction, thereby assisting recruitment and retention. 2. Introduce different types of health workers with appropriate training and regulation for rural practice in order to increase the number of health workers practising in rural and remote areas. 4 5 3. Ensure compulsory service requirements in rural and remote areas are accompanied with appropriate support and incentives so as to increase recruitment and subsequent retention of health professionals

							in these areas. 4. Provide scholarships, bursaries or other education subsidies with enforceable agreements of return of service in rural or remote areas to increase recruitment of health workers in these areas
							Recommendations for other health leaders include becoming an advocate for human resources, anticipating and preparing for the cost and complexity of decentralization, developing a strategic human resources development capability, investing in

							developing staff, and monitoring the impact of decentralizatio n
Per for ma nce	Imp rov ed man age men t at the dec entr aliz ed leve ls p.9 (Gh ana) Posi tive exp erie nce s incl ude som e man ager s' crea tive use of thei	siz e of the co unt ry • soc ioe co no mi c sta tus of the co unt ry • leg al an d reg ula tor y rig idit y of		• Lack of accur ate and timel y huma n resou rce infor matio n and functi oning HR mana geme nt syste ms at distri ct and provi ncial levels (e.g. job descri ptions , perfor			(1) defining the essential human resource policy, planning and management skills for national human resource managers who work in decentralized countries, and developing training programs to equip them with such skills; (2) supporting research that focuses on improving the knowledge base of how different modes of decentralizatio n impact on staffing equity; and (3) identifying factors that

	r dec entr aliz ed pow ers, suc h as the deci sion to free ze sala ries of heal th wor kers who too k an exte nde d, una uth oriz ed abs enc e, whi ch achi eve d a dra mat ic imp rov eme nt in staf f	the civ il ser vic e sys te m • sig nif ica nc e of the pu bli c sec tor as an em plo yer in the he alt h sec tor • po we r of lab or uni on s • inf lue nc e of		manc e evalu ation syste ms, etc.) • Lack of autho rity of local mana gers to reallo cate staff, create new posts or chang e the existi ng ones • Mism atch betwe en HR stand ards, set at the natio nal or provi ncial levels , and the abilit y of disad vanta			most critically influence health worker motivation and performance under decentralizatio n, and documenting the most cost-effective best practices to improve them

	discipline p.9 (South Africa),	professional associations • historical patterns in the way health services are organized and managed		ged districts to attract and retain staff to meet such standards • Inequities in salary levels, terms of employment and continuing education opportunities, rising disparities in financial capacity and local budget allocations • Pressure			

				on local governments to award salary levels that they cannot afford, as a result of local labor negotiations in which unions compare salary awards of different local governments • Poor morale and lowered performance due to staff concerns about the			

				security of their employment and limitations to their career development p.8 (South Africa), ...Decentralization brings considerable new skill needs, particularly in management competencies. Local managers' capacity to respond to these			

				and other performance gaps through training is, however, restricted. They lack funds to pay for such training, and often have little or no capacity to plan and implement in-service training programs at the local level [19]			
Performance							

Maldistribution		Key determinants of successful strategies include: length of time on the national priority agenda, long-term political commitment, integrati	...disparities in health outcomes between the rural and urban population	Factors associated with negative outcomes are lack of resources, lack of understanding of cultural context and resistance from professional or social groups. Decentralization and economic crisis can create conflicts between health organizations,			In the early 1990s Brazil developed a strategy, which now has been adopted by more than 80% of municipalities, to give access to basic services in poor and remote regions – some 63 million as of mid-2004. "Family health teams," composed of a medical doctor, a nurse, an auxiliary and four to six community health workers "and aiming at dealing with 85% of health problems in the municipality, have been trained and deployed all over the territory, thanks to incentives attractive enough to convince health workers to join in. Thailand has engaged consistently and

		on of effort s with those of other sectors such as education and civil service and ability to reconcile different expectations from varied		political forces, unions and professional associations ..... Urban areas are more attractive to health care professionals for their comparative social, cultural and professional advantages [13]. Large metropolitan centers offer more opportuniti			in a flexible manner in HRH policy for 40 years [37], which may explain its relative success in dealing with deployment issues

		stakeholders. The importance of involving the key actors in the policy formulation and implementation process stands out as a crucial eleme		es for career and educational advancement, better employment prospects for health professionals and their family (i.e. spouse), easier access to private practice (an important factor in countries where public salaries are low) and lifestyle-related servic			

		nt in the success of a policy [53,91]. Emphasis must be placed on bringing together different stakeholders at the stage of developing policy opt		es and amenities, and better access to education opportunities for their children [6, 14, 15]. In addition, the low status often conferred to those working in rural and remote areas further contributes to health professionals' preference for settling in			

		ions		urban areas, where positions are perceived as more prestigious [16, 17]..... Poorly targeted financial incentives can also have undesirable effects, as shown by experiences in Mexico and Thailand. In both countries, financial incentives for rural			

				work resulted in an early departure of professionals from rural areas, by making it possible for them to pay the fine to break compulsory service			

Maldistribution			……'urban bias' – a situation in which the political and economic forces of a country reinforce provision of services and investments in urban areas, reinforcing				

			disparities in access to health services and in health outcomes [17] ..... can also influence the distribution of health personnel away from rural and remote				

			areas that tend to be poorer				
Gender/ Ethnicity	……health sector should be democratic, and the health personnel should be representative of the population		workforce demographics fail to reflect important variations (in ethnicity or gender) of the client pop				

			ulations, with the implication that such populations are being underserved [13]				

Performance		training of health personnel emphasizes factual, specialist medical knowledge ... higher-order analysis, supervision and inspection, coordina		….poorly supported in many of these functions …..District health managers are often found to be particularly weak in systems management (community involvement and intersectoral co-operation), monitoring activities and the systematic organizatio	organizations share the following characteristics [38]. A strong sense of mission and sense of commitment to that mission by staff. A relatively high level of prestige and social status accorded to those who work in the organization. A culture oriented towards results both individually and organizationally. All members of the group are evaluated against performance objectives regularly and are expected, both by managers and by co-workers, to pull their weight; and the organization itself constantly evaluates its performance against external objectives and benchmarks. Lines of feedback from the end users of services are open and actively used to improve service delivery. .....9. Decentralization is no panacea for the health sector; it will not strengthen accountability and performance unless factors supporting high performance are put into place Decentralization has been in vogue in developing countries for over two decades, but there is no evidence in the growing literature on health sector decentralization that decentralization reliably increases sector performance [6, 40]. A review of TB control in Nepal concludes that decentralization ...can lead to inequity, political manipulation, fragmentation, increased bureaucratic costs and the overall weakening of the public sector...and affects the incentives	The important lesson in managing the process of health sector decentralization is "to ensure that the newly empowered organization is req	Structural issues such as the recruitment and distribution of workers (policy instruments: direct investment in the production of the workforce and regulations governing their distribution); Management and motivation issues (policy instruments: organizational reforms, management and supervisory patterns and workforce terms of service); and Private sector environment (policy instruments: regulation and standard setting)

		tion across multiple actors (including both local authorities and communities) and a range of managerial tasks [21]		n of meetings ..... Incentives for positive performance of the health workforce are reported to be very weak across a range of developing country health sectors, both from the 'daylight' and 'shadow' sides of the health facility environment.....	and career prospects of health staff. This complexity raises serious questions regarding the 'why', 'what' and 'how' of decentralisation [41]	uired to deliver clearly identifiable and measurable objectives. At the same time the organization is given the necessary resources and discretio	

				workers may feel they have little to gain from working hard or being responsive to either their clients or superiors. Poor career paths and promotion opportunities lead to health workers feeling 'stuck', while official salaries often cover only		n over their use, to permit these objectives to be met" [42]. The conceptual shift that is required is to examine what approaches and parts of	

				part of a worker's needs or overall income (given alternative livelihood strategies, such as engaging in part-time private sector health services or entirely different informal occupations) [33]		decentralization work in which local contexts, and to adjust the decentralizing reform to match this [36]	

Devolution		benefits such as housing or transportation or other incentives in kind		…….One reason is that local governments and community health associations face fierce competition with central government, which provides civil servant contracts with better security and career perspectives ……. posts in remote areas	……..Decentralization reforms are complex and dynamic processes and the outcomes for improved HRH are not yet fully known ……. research on the effects or potential of devolution on human resources for health at the local level is limited		

				are mainly used as a bridge to government employment, preferably in more urban areas			
Performance		performance pay, community health workers and increased attention to training of		….health workers' poor attitudes towards patients, absenteeism, corruption and embezzlement and lack of medical skills among some categories	health care quality to an important degree depends on four institutional factors at the microlevel that strongly impact on health workers' performance and career choice, and which deserve more attention in applied research and policy reform		

		health workers		of health workers ……...t four components constitute the deeper causal factors, which are, ranked in order of ease of malleability, incentives, monitoring arrangements, professional and work place norms and intrinsic motivation			

Maldistribution			…..junior nurses often have to wait before they can take up their first job	o shortcomings in human resource practices and education policies that exacerbate the situation …… …..Facilities that have been mandated to recruit staff directly often seem to lack the resources to do so ...the limited access to secon			

				dary education in general restricts the number of students who can enrol for either nursing or medical studies			

Performance				While a performance evaluation process was developed and is required, its practice is not widely implemented. Without increased compensation for additional tasks or years of service and no opportunities for advancement, motivation for nurses to	.....a strong management framework, improved HR coordination and significantly increased the number of nurses and midwives. Key interventions are responsible for these successes. First, strategically mobilizing donor funding and support to improve numbers and performance through training opportunities, salary incentives and technical assistance is credited as creating greater numbers of qualified nurses. Second, standardizing NGO salaries to match MOHSW pay amounts has stopped a large portion of outflow from the public to the private sector. Third, reopening training institutions and focusing on increasing skills through in-service training and mentoring has greatly reduced the number of nursing gaps at the facility level and increased nurses' ability to manage facility services that physicians and Pas would otherwise provide	• The strategies used have improved the distribution of doctors to a certain extent, as evident from the increase in the number and propor	Reform of medical education, Financial strategies, Personnel management, Social strategies, Institutional support for HR policy/management

				improve performance is an ongoing challenge		tion of doctors at the district level. But the fragmented, uncoordinated, inconsistent and sometimes irrational application of strategies res	

						ulted in a system that cannot attract doctors to stay in the rural areas when there are strong economic incentives in the urban private sec	

						tor. • The combination of rational strategies in packages with unified, integrated, consistent implementation supported by an effici	

						ent mo nit ori ng sys te m wit h est abl ish ed nat ion al me ch ani sm s is ess ent ial for the suc ces s of eq uit abl e ge ogr ap hic al dis tri but ion of do cto rs. • Fin	

						ally, more equitable socioeconomic development is the basis for overall sustainable success in social equity. This needs strong political	

						leadership and social support	

Productivity		task shifting to increase service availability with limited HR, ….central MOHSW teams are deployed to provide mentoring to the facilit		Logistical challenges such as the constant disrepair of vehicles mean supervision does not currently happen as often as it should, , ... Setting clear expectations and evaluating performance at the individual worker level has been more difficult, ...	…… implementing strong HR policy and management has to be at the core of any sustainable solution to health system performance [15]		

		ies once a year, ... The BPHS Accreditation has helped to communicate service standards and measure progress against them. In doing so,		Job descriptions are now standardized for each cadre, however they have not been broadly communicated to staff. For nurses, many of the tasks they are picking up through informal task shifting are not recognized in these descriptions			

		it has ensured that each health worker has a clear understanding of what services should be provided at the facility,					

Retention				location, total pay, conditions of equipment, availability of transportation, availability of housing, and workload			The first is to recruit students from rural areas and expose all students to rural working conditions during their training, …..According to the DCE and corroborated by international evidence as described in the global policy recommendations “Increasing access to health workers in remote and rural areas through improved retention”[14], exposure to rural areas leads to a significantly higher willingness to work in those areas. Second, the most cost-effective option is to give US$50 bonuses to nurses working in rural areas. This would increase the percentage of+I38

							nurses willing to work in the rural areas from 34% (baseline) to 49%. This is a similar increase that would occur if MOHSW improved equipment or provided housing, but at a much lower cost. Finally, the third intervention is to provide nurses in rural areas with transportation. Ideally, the DCE recommended combining this option with a US$50 bonus to substantially increase willingness to work in rural areas, ... First, strategically mobilizing donor funding and support to improve numbers and performance through training opportunities, salary incentives and technical assistance is credited as

							creating greater numbers of qualified nurses. Second, standardizing NGO salaries to match MOHSW pay amounts has stopped a large portion of outflow from the public to the private sector. Third, reopening training institutions and focusing on increasing skills through in-service training and mentoring has greatly reduced the number of nursing gaps at the facility level and increased nurses' ability to manage facility services that physicians and Pas would otherwise provide

Maldistribution - **Inequitable** Maldistribution - **Skill mix** Maldistribution - **Institutional** Maldistribution - **Gender**		Multiple factors influence the **inequitable distribution** of doctors, ranging from general social and economic inequity, the medical educati		A movement towards increasing private sector involvement in health services, fee-for-services payment under a user fee system, poorly managed decentralization, and increasing income maldistribution usually result in a shift of HRH in	Thailand applied several strategies in response to inequitable distribution of doctors; Development of rural health infrastructure, Educational strategies (Rural recruitment, training and hometown placement), Professional-replacement strategies, Financial strategies (Voluntary scholarships, Compulsory public service, Financial incentives, Increased tuition fees and payback by rural public work, Reform of the health care financing system,		

		on system, payment incentives, public/private health system development and a social movement for reform (Fig. 1) [2]. In contrast, investme		favor of the big cities, private hospitals and specialized services			

		nt in public health, cost containment, case or capitation payment systems, improved income distribution and effective decentralizat					

		ion us ual ly fav our the dis tri but ion of H R H to wa rds the rur al po pul ati on, the urb an po or, an d to pu bli c pri ma ry car e ser vic es, wit h a res ult ant inc					

		reasedneedformorelowerlevelcadresofHRH[1].					