



Master of Public Health

Master international de Santé Publique

Assessing national governance of Human Resources for Health in the Republic of Moldova

Margrieta LANGINS

Class and Year of Graduation:

M2 2013

Location of the practicum:

World Health Organization

Regional Office for Europe

Professional advisor:

Dr. Galina Perfilieva

World Health Organization

Regional Office for Europe

Academic advisor:

Dr. Bruce Fried

University of North Carolina Chapel Hill

ACKNOWLEDGEMENTS

It is hard to imagine a life after the thesis. It has been an all-encompassing journey, one that has been enriched by many generous individuals along the way. I would first like to take this opportunity to thank the team at the Human Resources for Health Program in the Division of Health Systems and Public Health at the WHO Regional Office for Europe. In particular I would like to thank Dr. Galina Perfilieva and Dr. Altin Malaj, Elena Galmond and Sharon Miller without whom I would have never had the opportunities to explore HRH in the Republic of Moldova as up-close and personally as I did. With their support and encouragement I was able to limitlessly question and explore the multiple facets of Human Resources for Health. When I did, the key informants working with HRH in the Republic of Moldova did not hesitate to share their expertise and insights working in this area. Their kindness and generosity despite their extremely busy schedules demonstrated for me their willingness to participate in this important dialogue and their commitment to building HRH in the country. A thank you goes out as well to my parents Anna and Janis, as well as to Brit Larsen, Elisabeth Oliver and Erica Stukator-Barbazza, my support crew, for keeping me housed, fed and well supported throughout. Last, but by no means least I would like to thank my academic advisor Bruce Fried from the University of North Carolina in Chapel Hill who from afar was able to keep up with my thoughts and ideas whilst masterfully steering me onto a clear and productive path. His patience and pedagogy helped make this thesis writing not only possible but also a very enjoyable experience! Thank You.

**ASSESSING NATIONAL GOVERNANCE OF HUMAN RESOURCES FOR HEALTH IN
THE REPUBLIC OF MOLDOVA**

	1
ACKNOWLEDGEMENTS	2
ACRONYMS	4
INTRODUCTION	5
BACKGROUND	6
MOLDOVA	6
MOLDOVA’S HEALTH OUTCOMES	6
HRH IN THE REPUBLIC OF MOLDOVA	9
ORGANIZATION AND HEALTH DELIVERY	11
CONCEPTUAL FRAMEWORK	12
DEFINING TERMS AND ASSESSING HUMAN RESOURCES FOR HEALTH (HRH)	12
ASSESSING HRH	13
DEFINING TERMS: GOVERNANCE	13
ASSESSING GOVERNANCE	14
KAPLAN ET AL.’S TOOL FOR ASSESSING HRH GOVERNANCE	15
METHODOLOGY	21
RESULTS	21
STRATEGIC VISION	21
ACCOUNTABILITY	23
TRANSPARENCY	26
INFORMATION	27
EFFICIENCY	29
EQUITY	30
RESPONSIVENESS	31
VOICE AND PARTICIPATION	33
CONCLUSIONS	35
BIBLIOGRAPHY	38
APPENDIX 1: KEY DOCUMENTS	45
APPENDIX 2: QUESTION KEY	48
SUMMARY	49
RESUME	50

ACRONYMS

CIS Commonwealth of Independent States

DALY Disability Adjusted Life Year

EU The 27 Member States of the European Union

EU - 15: The 15 Member States of the European Union prior to 1 May 2004

EU - 12: The 12 new Member States of the European Union from 1 May 2004 or 1 January

GDP Gross domestic product

GNP Gross national product

HiT Health In Transition Report (produced by the European Observatory)

HRH Human Resources for Health

MHI Mandatory health insurance

NCHM National Centre for Health Management

NGO Nongovernmental organization

NHIC National Health Insurance Company (Compania Natională de Asigurări în Medicină)

OECD Organisation for Economic Co-operation and Development

OOP Out-of-pocket payments

PHC Primary Health Clinic

SEEHN Southeastern European Health Network

TB Tuberculosis

WHO World Health Organization

Assessing national governance of Human Resources for Health in the Republic of Moldova

By Margrieta Langins

INTRODUCTION

This thesis sheds light on how the government of the Republic of Moldova is governing its Human Resources for Health (HRH). A country specific focus on HRH governance in the Republic of Moldova is urgently needed where HRH mobility is significantly higher than in neighbouring countries and where health outcomes are still below those of the rest of the region¹ (WHO 2012; Observatory 2011; Palese, 2010). Despite increased dialogue about the HRH situation in the WHO European region² no comprehensive European approach to HRH policy exists as of yet (Kuhlmann, 2013). While the literature is rich in analyzing HRH issues at the clinical level (ie. motivation, management strategies, team dynamics, incentives), recent literature has been calling for more attention to the overlap between health governance and HRH (Kaplan et al., 2013; Dieleman, 2011). Dieleman writes, *“governance seems to have been a neglected issue in the field of human resources for health (HRH), which could be an important reason why HRH policy formulation and implementation is often poor”* (Dieleman M.S., 2011). In recognition of the little exploration into the overlap between governance and HRH and because the health challenges are a high priority in the Republic of Moldova, it seems timely to develop, apply and assess a tool for assessing governance of HRH in the Republic of Moldova. The objective of this research was to apply an adapted version of a tool developed by Kaplan et al. (2013) for assessing Governance of HRH. The tool has been used because of its focus on linkages between the inputs and processes involved in strengthening HRH and those that improve governance. In identifying where these linkages exist and do not in the Republic of Moldova this analysis makes some practical and feasible recommendations for improvements so that governance of HRH in the country is more responsive to the needs of its population. The research also suggests ways in which the Health Workforce and Governance Framework presented by Kaplan et al. (2013) can be improved. With the creation of a Southeastern European Health Network (SEEHN) Regional Health Development Center on Human Resources for Health³, headquartered in the Republic of Moldova, the application of such an improved tool can be applied to other countries in the region.

¹ The WHO Moldova Nursing Profile in 2000 reports that in 1999 10,000 nurses left the profession

² For the purposes of this paper all references to Europe unless specified as the European Union (EU) will be referring to the 53 member states of the WHO Regional Office for Europe.

³ The Regional Health Development Center (South-eastern Europe Observatory) on Human Resources for Health is an initiative of the SEE Health Network and includes national institutions in Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Israel, Republic of Moldova, Montenegro, Republic of Macedonia, Romania and Serbia. The SEE Observatory on HRH is hosted by the National Centre on Health Management in Chisinau, Republic of Moldova, and receives technical

BACKGROUND

Moldova

The Republic of Moldova (population 3.6 million), nestled between the Ukraine, Romania and the Black Sea, is experiencing major gaps between the availability of its health workforce and the current health needs of its population. Since its independence from the Soviet Union in 1991 the Republic of Moldova has faced many challenges in transitioning from a socialized and centralized system to a more market-based and decentralized country⁴. Despite some positive economic growth after diversifying its market and turning its market to the west, the country remains the poorest country in the WHO European region⁵, with a GDP of US\$1810 in 2010 (Observatory, 2011). Estimates for the percentage of the population living under the poverty line in 1999 ranged from 80% to 94.7%⁶ (WHO, 2005; Development Research Centre on Migration, Globalization & Poverty, 2007), and while these numbers have decreased incrementally, they are still much higher than the rest of the WHO European region (World Bank, 2011)⁷.

Moldova's health outcomes

Economic transition has not only caused great socioeconomic hardship in the country but has also contributed to poor health outcomes (Palese et al., 2010; Development Research Centre on Migration, Globalization & Poverty, 2007; WHO 2005). Overall, mortality rates in the Republic of Moldova are 10% higher than other European countries (graph 1). Non-communicable diseases are poorly managed (European Observatory, 2012), accounting for 87% of deaths in the Republic of Moldova. External causes account for about 8% of mortality, and communicable diseases account for less than two percent.

Graph 1: Life Expectancy at birth in the Republic of Moldova and neighboring countries

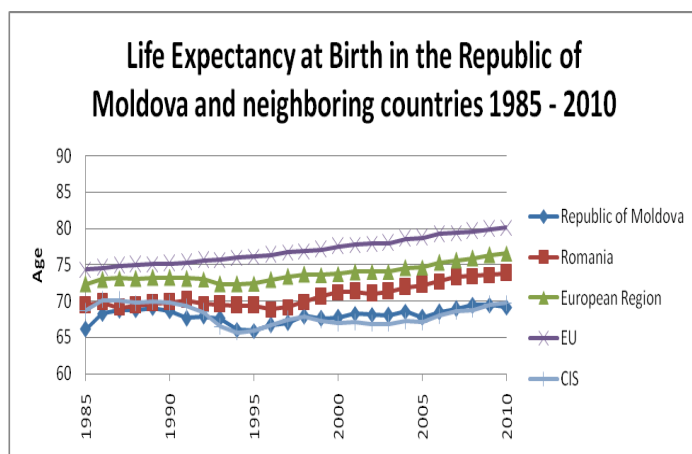
support and guidance by the WHO Regional Office for Europe Human Resources for Health Program. For more information: <http://seehrhobs.blogspot.dk/>

⁴ The country was rated as 2.3 on the corruption perception index where 0 is very corrupt and 10 is not corrupt (European Observatory, 2012)

⁵ The European region here will be defined as consisting of the 53 member states that make up the WHO Regional office for Europe.

⁶ According to the WHO Highlights on Health (2005) 94.7% of the population was living for less than US\$4.3 per day, and 64% of the population was living on US\$2.5 or less per day and by 2001 the rates were 92.1% and 64%, respectively.

⁷ Despite reduction in the poverty level and reported reductions in inequality, rural poverty has increased in recent years (Development Research Centre on Migration, Globalization & Poverty, 2007).



Source: HFA Database August 2012

The main causes of death in the Republic of Moldova are diseases of the circulatory system followed by cancer and diseases of the digestive system (Observatory, 2011). Many of these deaths can be attributed to heavy alcohol and tobacco consumption⁸. Communicable diseases experienced an increase in the years following independence with the incidence of TB having more than doubled since independence⁹ (WHO, 2011).

Table 1: Ten leading disability groups in the Republic of Moldova

Rank	Males		Females	
	Disability groups	Total DALYs (%)	Disability groups	Total DALYs (%)
1	Neuropsychiatric conditions	20.1	Cardiovascular diseases	26.0
2	Cardiovascular diseases	19.7	Neuropsychiatric conditions	19.0
3	Unintentional injuries	12.8	Digestive diseases	10.1
4	Digestive diseases	9.5	Malignant neoplasms	8.3
5	Malignant neoplasms	7.7	Unintentional injuries	5.3
6	Intentional injuries	5.6	Musculoskeletal diseases	5.1
7	Infectious and parasitic diseases	4.7	Sense organ diseases	4.6
8	Respiratory diseases	3.5	Respiratory diseases	3.7
9	Sense organ diseases	3.0	Infectious and parasitic diseases	2.6
10	Respiratory infections	2.6	Congenital anomalies	2.3

(source: WHO 2005)

Gender differences are particularly notable and the gap is widening (Observatory, 2011). According to WHO, a woman in the Republic of Moldova can expect to live until the age of 73.5 while a man can expect to live until the age of 64.9 (graph 2) (Observatory, 2011). While these cited life expectancies are 2-5 years higher than life expectancies in other countries in the south-east European region and the commonwealth of independent countries¹⁰ (CIS) they are still worse than averages experienced in

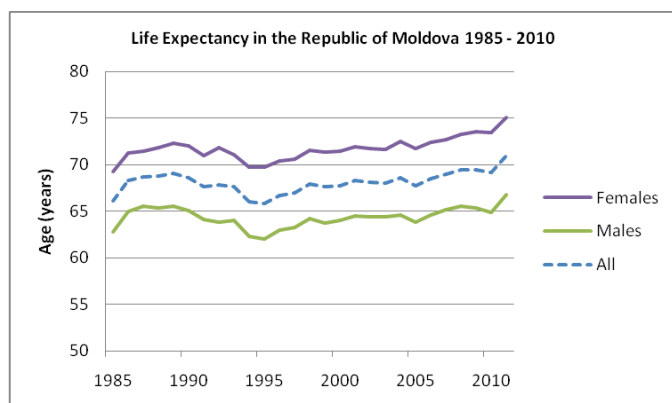
⁸ In 2010 57.6% of total male mortality and 62.3% of female mortality were attributed to smoking-related causes and 18.8% of male mortality and 13.7% of female mortality to alcohol consumption (WHO, 2011).

⁹ TB mortality is highest among the prisoner population (WHO, 2011).

¹⁰ CIS countries include: Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine

the countries that made up the European Union before 2004 (EU 15)¹¹.

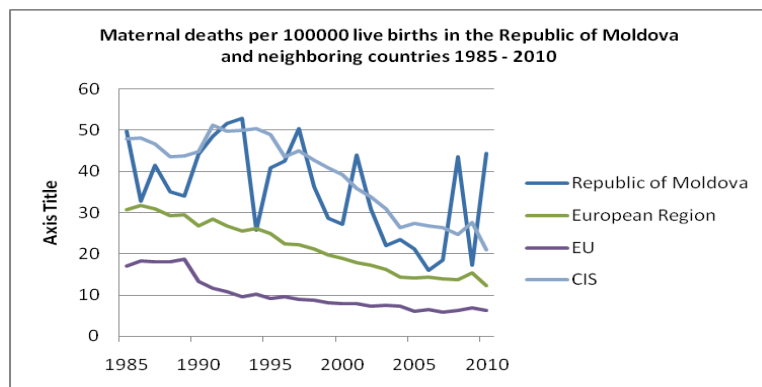
Graph 2: Life expectancy in the Republic of Moldova



Source: HFA Database August 2012

The maternal mortality ratio has fluctuated¹² and is the highest in the European region at 44.8 per 100 000 live births (graph 3). This is 7 times the rate of 6.1 per 100 000 in the neighboring European Union. Connected to this is infant mortality, which has decreased by 33% between 1995 and 2003 but is still substantially higher at 11.8 per 1000 live births than the EU average of 4.3 per 1000 live births (Observatory, 2011)¹³ (graph 4).

Graph 3: Maternal mortality in the Republic of Moldova and neighboring countries



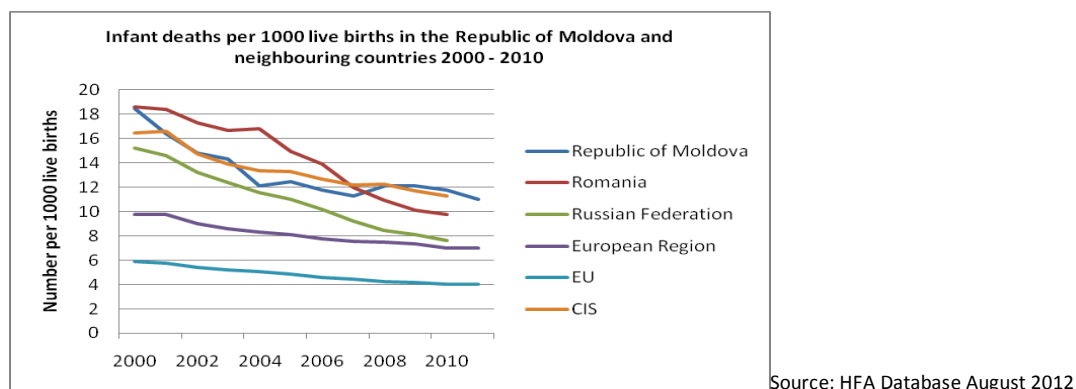
Source: HFA Database August 2012

¹¹ These countries include: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.

¹² Observatory reports that this fluctuation is despite accurate monitoring and alignment of definition for maternal mortality.

¹³ It is estimated that accurate infant mortality rates would be 30% higher than the officially recorded rates (Observatory 2011).

Graph 4: Infant mortality in the Republic of Moldova and neighboring countries



In comparison with other European countries the population of the Republic of Moldova is relatively young with 21% of the population is between 0 and 14 years of age (HFA Database August 2012). Youth in the Republic of Moldova are less affected by cardiovascular disease than many CIS countries but are still at a 3-fold higher risk of dying (154:1000) than the EU-15 countries (49:1000). Youth in Moldova are also at an increased risk of Lung Cancer than in previous years and this is clearly related to tobacco¹⁴. The population that is older than 45 years in the Republic of Moldova is experiencing mortality rates more similar to CIS countries than the younger population.

The female population older than 60 has experienced 10-fold increases in mortality rates due to ischemic heart disease in comparison to women in the EU-15 countries which is 70% higher than in other CIS countries. While the over-65 population (9.8%) is less than the European average (12.3%) due to poor health, poor pensions, high living costs, and increased migration of the younger population this population is becoming increasingly vulnerable. As a result of increased disease burden in this population and increased emigration of the younger population, this group of people will increasingly be requiring health care services and is already relying on an increasingly informal health workforce (Observatory, 2011).

HRH in the Republic of Moldova

Like many other countries, Moldova faces gaps in the supply and distribution of its human resources for health (HRH). Currently there is a 320:100,000 physician: population ratio and a 630:100,000 nurse: population ratio (The Republic of Moldova, 2007). These ratios are both lower than neighboring EU averages (see graph 5 & 6). Between 1990 and 2007 the number of physicians in the Republic of Moldova decreased from 16,000 to 10,500 (Galbur, 2011a). During this same period the number of nurses was halved from 43,000 to 23,000 (Galbur, 2011a). Poor working conditions, lack of equipment,

¹⁴ The Republic of Moldova is a signatory to the WHO Framework Convention on Tobacco Control (FCTC) as of 2004.

poor wages and better prospects in other countries are associated with this decrease in nurses and physicians in the Republic of Moldova. Those that decide to stay in the workforce do not want to work in rural areas (WHO & SEEHN, 2011, Observatory, 2011). This deficit in rural areas however is greater among physicians than among nurses.

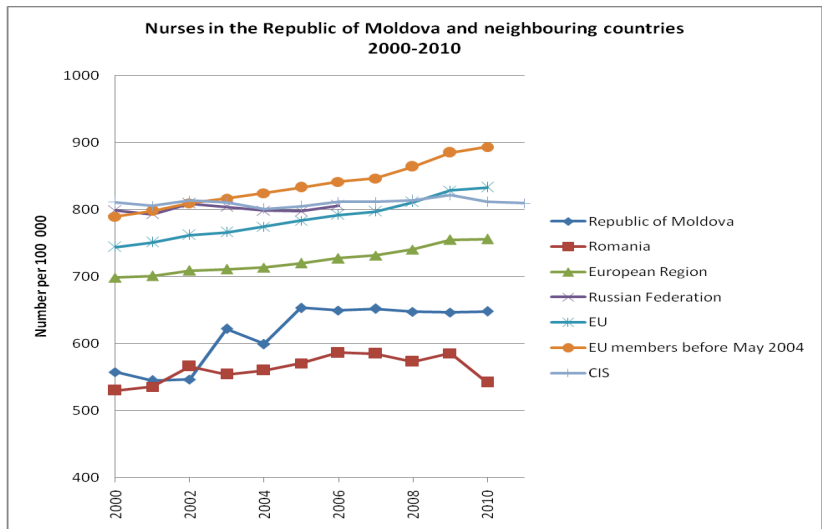
Available HRH is a key indicator of access to health care. For a country to claim equity of health services it needs to ensure HRH are available to address population health needs. In addition to the reasons for decreased HRH availability faced by most countries in the world (aging populations, increasing demands on the workforce and decreased motivation of health workforce (OECD, 2008)), one of the greatest challenges to the health care system since independence is the increase in the mobility of health professionals (Observatory, 2011). Between 2004 and 2009, the Republic of Moldova has moved from a minor human resources exporting country to a major exporting country (Palese, 2010, Development Research Centre on Migration, Globalization & Poverty, 2007, Observatory, 2012). It is estimated that up to 40% of the population has left the Republic of Moldova for wealthier countries such as Italy, France and Spain¹⁵ (Observatory, 2012), and up to 20% of the country's health professionals to EU and neighboring CIS countries¹⁶ (WHO & SEEHN, 2011).

Under the Soviet system health professional mobility was contained and controlled. This system inhibited movement of health professionals and ensured equal geographic distribution of health providers. In recent years, national and EU laws support the free movement of health professionals as a human right and increasingly facilitate the mobility of educated and experienced health professionals.

Graph 5: Nurses in the Republic of Moldova and neighboring countries

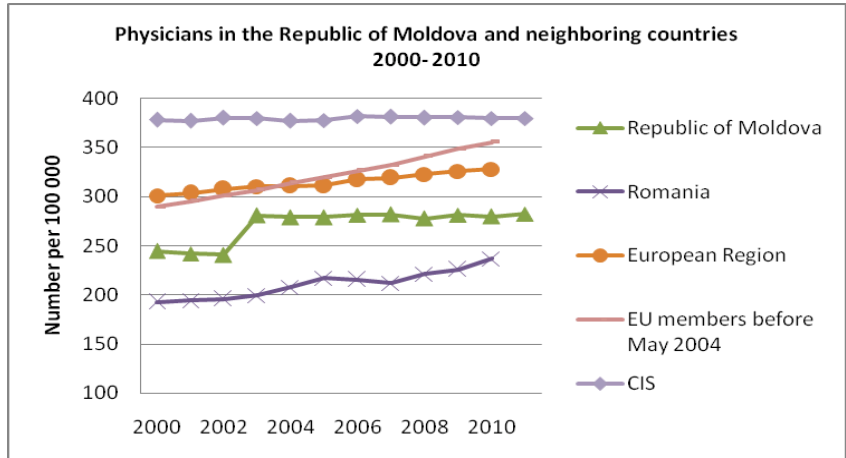
¹⁵ The Republic of Moldova is currently experiencing a net decrease in its population of -1.8 percent (WHO, 2005).

¹⁶ It is estimated that 40% of the Moldovan economically active population has left the country (European Observatory, 2012)



Source: HFA database August 2012

Graph 6: Physicians in the Republic of Moldova and neighbouring countries



Source: HFA database August 2012

Organization and Health Delivery

The Ministry of Health (MoH) in the Republic of Moldova has 7 departments and 25 subordinate institutions through which it is ultimately responsible for the organization, regulation and functioning of the health system. The constitution of 1994 promotes universal health care through a guaranteed minimum health care package provided by the state. Health care is financed both by the state funds and individuals who contribute through mandatory health insurance (MHI). The system includes both public and private services. While the ministerial departments and subordinate institutions negotiate funds with the state budget, the public sector negotiates financing with National Health Insurance Company (NHIC). Performance-based purchasing is still a priority area for the NHIC (Observatory, 2011). The soviet era has left a strong legacy of specialized and urban-based care. This is changing. Several reforms have been implemented in the past 5 years to move away from the old Semashko system. The key focus of these reforms has been improving efficiency and

financing. The Observatory reports that this is slow moving as a result of the people who work in the system taking longer to adapt to new roles and structures (Observatory, 2011).

The National Health Plan for 2007-2021 and the Health System Development Strategy for 2008-2017 are the key documents guiding change in the country. Currently 3 of the 35 administrative authorities also have local health authorities responsible for regulation but none of the 35 administrative authorities (or rayons) finance or have planning and supervision responsibilities over providers. In this way the system is still quite centralized. In terms of HRH, the primary department responsible for planning, training and maintaining the knowledge base of HRH but also coordinating and implementing policies is the Department of HRH management and policy development.

Regulation of activities in the health system is the responsibility of the MoH. Accreditation of health institutions involves receiving approval from the Ministry of Health once an evaluation process has been successfully completed with the National Council for Evaluation and Accreditation in Health.

Registration of health care professionals does not yet exist but is being developed for physicians.

Health professionals are licensed by the institutions where they successfully complete their training.

CONCEPTUAL FRAMEWORK

Defining terms and assessing Human Resources for Health (HRH)

Before looking at how to assess governance of HRH it is important to define HRH, arguably one of the most essential inputs into the health system¹⁷ and also one of the WHO's defined six building blocks of a health system. For the purposes of this paper HRH will refer only to physicians and nurses who have formal health training as these groups are the best documented in the literature and in the Health For All (HFA) database. Without this health workforce there is no one to promote health, diagnose, prescribe, treat and guide patients through the health system. HRH is very directly linked to two of the three ways that the WHO 2000 Health report suggests countries can improve their health systems: 1) more equitable access to quality health services and prevention and promotion programs and 2) patient and public satisfaction with the health system¹⁸.

Unfortunately there exists a significant gap between the number health professionals available to deliver required services and the demand for HRH (WHO 2006). Being able to steer health systems so that they adequately plan for, attract and retain HRH to partake in health delivery involves understanding the nature of HRH work. There exists, however, an enormous variety of roles and scopes of practice between HRH. Not all are trained to do the same things. A very specialized and

¹⁷ Mikkelsen-Lopez et al (2011) question whether all blocks are conceptually equivalent arguing that there is an importance differentiation between those building blocks that are inputs and those that are outcomes. Mikkelsen-Lopez argues that HRH is one of the major inputs to the health system.

¹⁸ The third way is to improve financing schemes.

variable type of training is required to 1) develop, 2) upkeep and 3) ensure responsiveness of skills needed by HRH to respond to health developments and epidemiological realities. A national HRH governance assessment tool must look at how the ministry of health ensures that the variety is maintained but that the regulations around these different roles and scopes of practice are tailored in response to population health needs.

Assessing HRH

There have been several developments in assessing HRH. Most of these have been descriptive and country specific. The Health Action Framework (HAF), an initiative run by USAID's Capacity Project has outlined six action fields for building and supporting countries' HRH. The very comprehensive website breaks down the essential components of a strengthened HRH as including: Human resource management systems, policy, finance, education, leadership and partnership.

Defining terms: Governance

The 2000 World Health report identified four functions of the health system. These are stewardship, financing, service delivery and creating and managing resources. The report puts forth that through these functions governments can achieve 1) improvements in health status through more equitable access to quality health services and prevention and promotion programs; 2) patient and public satisfaction with the health system and 3) fair financing that protects against financial risks for those needing health care (WHO 2000). When, in 2007, the WHO clarified the architecture of the health system as consisting of six building blocks they refined the word stewardship with the word governance¹⁹. Governance, initially a function prioritized by the World Bank in its efforts to address corruption has been explored in various sectors before being explored in the health sector²⁰.

Governance has been declared a key determinant of economic growth and development (Brinkerhoff and Bossert, 2008; Siddiqi et al., 2008). At the global scale governance made its first appearance with the reports by the WHO (2000 & 2007), Brinkerhoff & Bossert (2008), Lewis & Pettersson (2009) and Savedoff, (2009). The work of Siddiqi (2008), Smith (2011), Baez-Camargo (2011), Mikkelsen-Lopez (2011) and Wendt (2012) took this further by looking more specifically at governance and health systems. Nevertheless governance remains a complex idea which has been largely neglected in the study of health systems. In some instances, governance has been addressed in a highly theoretical manner, and has been criticized as not very practical or operational (Siddiqi et al., 2008).

¹⁹ The 6 health system building blocks identified in the 2007 WHO report are leadership and governance; health workforce; information; medical products; vaccines and technologies; financing; and service delivery.

²⁰ Governance has been looked at in corporate settings, the development, finance, private and public sectors.

One place to start understanding governance is by clarifying the definition of governance, its function and at which level of society it is being examined (Siddiqi et al. 2008). For the purposes of this paper health governance will be defined as: “the set of rules that define the responsibilities of health system actors, how they operate, and how they relate to one another” (Kaplan et al., 2013). Such a definition of governance captures both technical functions and process-oriented functions. This definition emphasizes that governance is rule-based, be it policy or regulations, soft or hard regulations, and that these rules define responsibilities and interactions between a variety of actors. The definition also captures the fact that governance relies not only on inputs but also on processes, something put forward by Mikkelsen-Lopez et al. (2011). Strong governance is particularly important, writes Mikkelsen-Lopez et al (2011), where countries are “congested by numerous externally driven health initiatives who do not necessarily work together or respect country priorities and who need to manage a plethora of stakeholders who influence policy” (Mikkelsen-Lopez et al., 2011). In countries like the Republic of Moldova where markets are growing faster than the state’s capacity to set priorities, implement, and monitor performance of its health sector and its HRH, governance has become particularly relevant and important. Since local and international stakeholders have played an active role in policy formulation in the Republic of Moldova, it becomes more important to define (and strengthen) the role of national governance in contrast to the two other levels of society at which Siddiqi says health system governance occurs: the regional, and the global level (Siddiqi et al 2009). Thus, for the purposes of this research, governance was examined at the national level because it is ultimately the direction of the national government because it is at this level that priorities are set, relationships are defined and development evaluated in the case of health workforce. In the Republic of Moldova this means looking at the ministry of health and its subordinate department, the Department for HRH management and policy development (HRH Unit).

Assessing Governance

Assessing governance involves assessing that these rules are being defined and that the implementation of the defined rules and relationships are effective. The literature presents a variety of ways to do this. The WHO in 2010 proposed an assessment tool to distinguish between rules based indicators and outcome based indicators which were very focused on vertical health programs. Other researchers have proposed that indicators are more focused on the implementation and process of governance and over the past 3-4 years these proposals have resulted in a series of categories, elements or principles of good governance. See table 2 taken from Mikkelsen-Lopez et al. (2011).

Table 2: Principles of good governance addressed in different conceptual frameworks

Governance element	WHO 2007	Islam 2007	Siddiqi et al. 2009	Lewis and Patterson 200
Accountability	X	X	X	X
Effectiveness/efficiency			X	
Equity			X	
Ethics			X	
Existence of Standards		O		X
Incentives	O			X
Information/Intelligence	X	X	X	X
Participation/Collaboratio	X	X	X	
Policy/System Design	X	X		
Regulation	X	X		
Responsiveness		X	X	
Rule of Law			X	
Transparency	O	O	X	O
Vision/Direction	O		X	

X = indicates governance element is identified as a discrete element

O= indicates the governance element is mentioned in context of other elements

Source: Mikkelsen-Lopez et al. 2011

Kaplan et al.'s tool for assessing HRH governance

Moving our understanding of HRH and governance forward and our understanding of the greater health system, Kaplan et al. have proposed how to understand the overlap between these 2 building blocks of the health system. Understanding their overlap helps us identify more integrated solutions to health system strengthening, which can be more effective than tackling these 2 building blocks separately. Kaplan et al.'s study of 20 countries is one of the very few to date that has assessed linkages between governance and HRH and is a direct response to Dieleman's initial call for improving the implementation of HRH policies through the governance lens (Dieleman, 2011). Kaplan et al. (2013) have outlined several interactions between 8 of the above-mentioned health governance principles and the 6 action fields presented by the Capacity Project's Health Action Framework (HAF). These 8 principles, 6 action fields and now 20 linkages have been presented in table 3. While these linkages may not be the only linkages between the 8 health governance principles or 6 HRH action fields, for the purposes of this research they were the 20 linkages used in this research. Understanding if the government of the Republic of Moldova was applying the 8 principles of governance to improve its health workforce by way of these 20 linkages is the driving question for this research. Moreover, adapting Kaplan et al.'s 8 principles with that of Mikkelsen-Lopez et al.'s framework of inputs and processes is one useful way of understanding the stage at which interventions be made to improve governance.

Strategic Vision (Input)

Kaplan et al (2013) have defined the strategic vision as the national priorities and expected roles of health system actors. Such vision establishes benchmarks for measuring short and medium term performance and build consensus among different stakeholder groups in order to align programs with government priorities. Smith et al (2012) and Mikkelsen-Lopez et al (2011) argue that it is also important that this strategic vision is long term. A strong strategic vision for the health sector can help a government and health sector actors coordinate activities within the health sector (Kaplan et al 2013).

Voice and Participation (Input)

Voice and participation refers to the giving voice to the interests and needs of health system beneficiaries. Communities should have a voice to determine which services are provided and to provide feedback on their quality (Kaplan et al. 2013). Mikkelsen-Lopez et al. (2011) write that the most commonly reoccurring input to governance structures is participation. Maybe because a voice is often confused with a veto (Brinkerhoff and Bossert 2008). Sometimes, too much participation can also harm delivery of services if participants are not given an equal playing field, or clear and efficient tools for making their voice heard (Mikkelsen-Lopez et al. 2011; Brinkerhoff and Bossert 2008).

Accountability (Process)

Smith et al (2012) argue that it is accountability that is the least developed process of governance (Smith et al. 2012). They identify two important elements to this accountability: that different stakeholders are identified to collect relevant information and that stakeholders are actually held to account. This helps have a clearer understanding on who is best equipped to handle different dimensions of health workforce strengthening. Kaplan et al (2013) say this applies to the multiple actors in the health system including policy makers but also providers and planners.

Transparency (Process)

Transparency refers to the authority's openness in decision making. Financing Kaplan et al. approach transparency primarily through a financial lens. A budget is the ultimate evidence for clear allocation of resources and clarity in priorities.

Information (Process)

Information is a vital process for good health system governance. It allows governments to put forward evidence-based policies with clear rules and purposeful incentives (Brinkerhoff and Bossert 2008). Information should not only be collected and in a transparent way but information should also be analysed on an ongoing basis to feed into all the other elements of governance so that they are properly informed and evaluated.

Responsiveness (Process)

Responsiveness refers to the process of adjusting training and services to the needs of the population. It is the ability of the government and other institutions to respond to population health needs at both the regional and local levels (Kaplan et al. 2013).

Equity (Process)

Equity refers to the degree to which policies and procedures apply equally to everyone. Access to health in rural areas is one of the best indicators of this. Mikkelsen-Lopez et al (2011) and Siddiqi et al (2009) recommend that equity can also be assessed at several levels within the health system.

Efficiency (Process)

Increased efficiency and capacity can in turn increase legitimacy (Brinkerhoff and Bossert 2008). Public-private partnerships are one means of improving efficiency (Kaplan et al. 2013). Contracting the private sector to help deliver care can help improve quality of care but also lower costs for the government. For the health workforce this not only improves their working conditions but may also allow for higher allocations of funds to salaries, an issue that is particularly relevant. Another means of improving efficiency is through incentives. Governments can create incentives (or not) for actors to fulfill their roles and responsibilities. (Brinkerhoff and Bossert 2008). If implemented properly financial and non-financial incentives can ensure better performance with less waste (Kaplan et al. 2013).

Table 3: Kaplan et al.'s Health Workforce and Governance Framework: The Linkages

Governance Principle	Link Between HRH & Governance	Human Resources for Health Action Frame Action Field
Information <i>Timely accurate information enables stakeholders to make evidence-informed policies, and to take action when goals and standards are not met. Relevant to decision makers throughout the health system, at the policy, program, and management levels</i>	1. Information systems facilitate production of data to inform decisions about planning/training/supporting the health workforce	Human Resource Management Systems
	2. Bottom up information from health workers assists government to formulate evidence based policy, plan direction of health sector, and monitor performance	
Accountability <i>Holding public officials and service providers answerable for processes and outcomes and imposing sanctions if specified outputs and outcomes are not delivered. Applies to multiple health system actors, including policy makers, planners, managers, providers and support workers</i>	3. Environment where health workers know responsibilities and have supportive supervision, and supervision enables them to better fulfill duties	Policy
	4. Existence/ use of tools to measure health worker performance enables managers to hold workers accountable to set expectations.	
	5. Scopes of practice ensure qualification are met upon entry into profession and reassessment procedures are in place to ensure staff maintains qualified status	
Strategic Vision <i>Defines priorities and expected roles of health system actors, establish benchmarks for measuring short and medium term performance and build consensus among different stakeholder groups to align their programs with government priorities</i>	6. Evidence-based and costed HRH policies/strategic plans provide a vision for the health workforce and help to coordinate activities with the health sector	
Transparency <i>Openness and clarity in decision-making and allocation of resources. Important for decision-making, budgeting, and tracking of expenditures</i>	7. Documentation ensures clarity among health workers concerning the rules they are governed by.	Finance
	8. Routine NHA data enable stakeholders to track health expenditures from source providers.	
	9. Transparent/comprehensive account of the budget process ensures clarity in decision making	
Efficiency <i>Extent to which limited human and financial resources are applied without unnecessary waste, delay, or corruption</i>	10. If implemented appropriately, financial and non financial incentives can ensure better performance with less waste	
	11. Performance contracting, whereby public sector collaborates/purchases services from private sector, can lead to delivery of better quality care at a lower cost	
	12. Informal user fees act as a barrier to care and increase costs without improving quality or access to public health services.	
	13. Mechanisms used to pay health service providers serve as an incentives/affect the quality of care	
Equity <i>The degree to which policies and procedures apply equally to everyone</i>	14. Perceptions of unfair wages and actual wage differences drive staff turnover. Salaries should be equitable among employees completing similar levels of work, and paid on time.	Education
	15. Providers recruited from and then posted to rural areas are more likely to stay in rural areas	
Responsiveness <i>Ability of the government and other institutions to respond to population health needs at both the regional and local levels</i>	16. Aligning pre-service education with the competencies needed to address population health enables the right numbers and cadres to enter the workforce with the right skills.	Leadership
	17. Outdated curriculum is unresponsive to population health needs and a source of poorly trained workers	
	18. In-service training should be linked to organizations' priorities/changes in the health sector. Adhoc in service training that is unrelated to staff needs often results in low attendance rates.	
	19. High level government officials (ministers, parliament, cabinet members, private health sector leaders) should be aware of HRH issues to develop cals for action/include HRH in donor requests	
Voice and Participation <i>Individuals are able to act through institutions that represent their interests, and the interests of a larger group</i>	20. Communities should have a voice to determine which services are provided/how funding is budgeted/provide feedback on service quality.	Partnerships

METHODOLOGY

A multiple pronged methodology was applied for this research. These steps included a literature review, a document analysis and in person interviews with key informants. A great deal of effort was invested in retracing Kaplan et al.'s steps in understanding governance, its various definitions as well as HRH strengthening strategies. The PubMed Qualitative Topic search feature as well as the healthevidence.org and healthsystemsevidence.org databases were consulted to understand the Moldovan context, its medical system, the challenges the country faces in terms of HRH, its planning, the organization of the Moldovan government and the ministry of health. Next key informants at the WHO Regional Office for Europe (WHO Europe) and the WHO Country Office (CO) in the Republic of Moldova were consulted to provide all key government published and unpublished documents (in Romanian and English) that had been presented by the ministry of health or commissioned by the ministry of health to direct or understand HRH planning, monitoring or evaluation. The final list of documents is included in appendix 1. An analysis of these documents was performed using the table provided by Kaplan et al. (2013). All information presented in these documents was classified where it either confirmed the existence or absence of the 20 indicators assigned to the 20 linkages. Key informants were then consulted using a topic guide created based on the 20 linkages. Questions were asked until a point of saturation whereby no new comments were being made. The questionnaire used is in appendix 2. A range of stakeholders inside and outside of the MoH was selected. These included WHO country representatives, World Bank project manager, Director of the Simulation Center at the Medical University, a previous HRH Department director and the Director of the HRH Data Unit at the National Health Management Center (NHMC). The director of the Medical University and the current interim director of the HRH unit were not available due to language barriers. Key informants were interviewed by email and by Skype. Interviews lasted 30 minutes to 1hour over a 2-week period. The different stakeholders provided an opportunity to explore different points of view and unearth a clearer and more realistic picture of HRH governance in the country.

RESULTS

Strategic Vision

Defines priorities and expected roles of health system actors, establish benchmarks for measuring short and medium term performance and build consensus among different stakeholder groups to align their programs with government priorities (Kaplan et al. 2013)

The National Health Plan for 2007-2021 on which is based the health budget clearly identifies health system development as one of its 13 priorities. Within health system development HRH is one of three

action areas²¹. The government has identified 8 areas for HRH development including: management, planning, competence, work quality and productivity, continuing professional development, practical training, improving motivation of health workforce and increasing salaries (Republic of Moldova, 2007).

HRH strengthening has been brought up in other key documents suggesting some integration of HRH priorities across sectors and actors in the country. HRH was included in the Economic Growth and Poverty Reduction Strategy Paper (EGPRSP) of 2004-2006. This commitment has been ongoing and the European Council and the World Bank continuously show their support for HRH development in particular focusing on education, better planning and improving motivation (Observatory, 2011). The Project “Better managing the mobility of health professionals in the Republic of Moldova”, funded by EU was started in 2012 to strengthen the capacity of the Ministry of Health to manage the migration/mobility of health professionals.

To follow up on these general commitments to HRH and despite political instability, the MoH “*with the supervision of the World Bank Medical and Social Assistance project*” (key informant) created and endorsed a Conceptual Framework for HRH Development on February 14, 2012 (Republic of Moldova, 2012a). This conceptual framework will hereby be referred to as the framework. Previous to this HRH actions “*were fragmented decisions*” (key informant). A ministry-appointed working group was assigned to the task of drafting the framework in June 2010. The working group consisted of specialists in HRH from the MoH, the NCHM, the Medical University, Medical Colleges and Trade unions. Informants said that the framework was only drafted in the last 6 months leading up to February 14, 2012.

When asking about what informants thought about the strategy the message was consistently one of agreement that it is important but that the strategy is not perfect. “*You know of course there is no real strategy but it is a step. You have to applaud this effort to increase capacity of HRH and the creation of an action plan. There is now an action plan and in the last 4 years there has been a lot of activity compared to the last 10 years. There are visible efforts*” (Key informant)

There are four objectives in this framework. They are: a) to balance the distribution of HRH in the health system; b) to optimize the management of human resources in the health system and ensure efficient functioning of the health workforce; c) to improve medical education for health professionals and other categories of professionals in accordance with their practice needs international requirements; and d) managing the mobility of human resources in health. Most informants agree with the relevance of these objectives. One informant felt that mobility should not have been focused

²¹ The other two priority areas of the National Health Plan’s Health System Development priority are decentralization of the system and financing of the system (Republic of Moldova, 2007)

on as the previous three objectives would naturally address this problem and the mobility problem was otherwise too big for such a short time line.

The HRH Management and Policy Department (or HRH unit) in the MoH has been tasked with coordinating the implementation of this framework (Republic of Moldova, 2012a). The HRH unit is assigned to achieve the implementation of the framework in collaboration with the National Center for Health Management, the State Medical and Pharmacy University “Nicolae Testemitanu State University”, the College of Medicine and Public Health institutions (Republic of Moldova, 2012a). By March 27, 2012 the implementation of the Framework was described in an action plan (Republic of Moldova, 2012b). Some activities of this framework have also been included in the National Health Plan Action plan for 2013 (Republic of Moldova, 2012c). The monitoring of this action framework has been assigned to the Monitoring and Evaluation Department at the Ministry of Health on a quarterly basis (Republic of Moldova, 2012b).

The resounding message from all informants was that the framework was drafted in a very short amount of time, is not a legally binding document and is not of very good quality. Informants said that the time frame for this framework is short (ends in 2015). Several informants said the Medical Education Strategy for 2010 – 2020 was more influential as a document. The primary reason given for why the framework was considered poor is because it fails to translate high-level goals into operational and clear targets. The critique of the national policy on hospital development by Edwards (2011) may serve as an indication of Moldovan capacity in general to clearly outline targets for its HRH strategy, let alone health system development.

In the roadmap for boosting health reforms in 2011, the government committed to increase the role of research in policy development (Republic of Moldova, 2011a) however increasing research capacity is not one of the objectives or an action area in the framework.

Accountability

Holding public officials and service providers answerable for processes and outcomes and imposing sanctions if specified outputs and outcomes are not delivered. Applies to multiple health system actors, including policy makers, planners, managers, providers and support workers (Kaplan et al. 2013)

Informants identified several shortcomings in terms of accountability. Coordination has been assigned to the HRH unit. That the government has such a unit is a positive indicator. So is the fact that this unit has a department at each level of the health system (Galan, 2012). However, “too few people work there. Another weak point is that these people are changing all the time or have decided to leave the MoH.” (key informant). Moreover the department has had 3 different directors over the past 18 months. At the time of this research the position had been vacant for 2 months according to informants but no call for applications could be found on the Ministry of Health website. When asked

why this might be one informant chuckled *“I can tell you why it is so often. The department is like a fire station. You never know what will happen on a given day. Your agenda will be disturbed from the bottom to the top. You can make yourself an agenda of 10 items, maybe 20 items. It is very hard to work there. There are a lot of demands from the high-level ministries and education institutes. Even the contest of the directors of health institutions is being facilitated by this department. People work there from 7 am to 11pm, Saturday and Sunday. It is really hard to work there”* (key informant). Another informant said that this may be related to the government’s intentions to generally downsize *“the policy of the government is to decrease the number of civil servants not just for ours but also for others and maybe it is correct to not have so many people working there and a good idea that capacity is delegated from central authorities to others”* (key informant).

Meanwhile another issue became clear in regards to accountability. That is, that there exists some lack of clarity about roles and responsibilities. Coordinating capacity of the government has been generally described as poor in other reports and efforts (Observatory, 2011; Republic of Moldova, 2011a).

Informants were not always clear who was to perform analysis, who was to coordinate and who was to implement. *“The MoH have only to create strategies and policies and to put them in place but somebody else some other authority should be put in place to coordinate and monitor. Maybe to have a look from time to time but not to coordinate”* (key informant). Several informants felt that it the coordination of the framework really depended on who is the minister of health. One informant suggested that maybe this could be a role held by the HRH unit at the NHMC but even there *“they only have 3 people engaged there and they have a lot of tasks to do and implement and coordinate and to report. I don’t know who at this time is the body that could keep the monitoring function and coordination of all this action plan”* (key informant). When asked if the HRH unit is doing what it has been assigned to do one informant said *“actually this unit from MoH that was supposed to be in MoH is dealing with very administrative problems solving different papers and problems of the health staff. So they do not really do strategic activity at the strategic level”* (key informant) the unit seems to be doing things that work against the conceptual framework: *“They spend more time giving out permits to leave the country than ensuring these same people cannot be helped to stay in the country”* (key informant).

Implementation has been assigned to the National Center for Health Management, the State Medical and Pharmacy University “Nicolae Testemitanu State University”, the College of Medicine and Public Health institutions. The MoH has clarified responsibilities by associating these actors with indicators and targets. The responsibilities are not specified any further in terms of their relationships with other actors in terms of decision-making, financial influence and reporting responsibilities. *“This should be in a separate section”*, clarified one informant.

In their Health in Transition (HiT) report the European Observatory has described the decentralization process as imperfect due to problematic coordination of health policy between local authorities and the MoH. The HiT report explains that local authorities are also often unclear on their roles and responsibilities in health management and administration. Other indications of poor coordination have been witnessed by informants in the HRH department, which may not always be doing what it is supposed to do because of excessive administrative work and disproportionate amount of work in some areas (ie. authorizing medical licenses for people going abroad).

Several steps towards evaluation have been taken in this direction in the Republic of Moldova. For example as of 2011 a MOH order (999/2011) was passed to establish and develop the department of analysis and planning of HRH within the National health management centre. Their role is to analyze the human resources from the Moldovan health system in order to elaborate recommendations to the MOH for better planning, education, management and development of the HRH; actively participate in the implementation of HRH policies and strategies at regional and national level; cooperate at the international level with SEEHN (as of June 2012) & has 4 units: 1) centre for HRH development; 2) unit of HRH mobility management 3) unit of HRH information system and 4) national HRH observatory (Galan, 2012). The capacity of the centre however is very limited as well as per informants: *“they only have 3 people engaged there and they have a lot of tasks to do and implement and coordinate”* (key informant) and *“they are more of a health information centre, collecting data doing some analysis, in fact not really analysis but some reports. This is their activity”* (key informant).

The responsibility of the monitoring and evaluation of the framework has on the other hand been clearly assigned to the Department of Monitoring and Evaluation and their identity in the organigram of the MoH is clear. In the Conceptual Framework for HRH the Department of Monitoring and Evaluation has been asked to deliver an annual report to the Minister of Health. This is impressive given that in Kaplan et al’s (2013) sample none of the 20 countries examined had put a monitoring and evaluation plan in place. The action plan for the framework clarifies that the Department of Monitoring and Evaluation must evaluate the activities every 3 months (Republic of Moldova, 2012b). The mechanisms for collecting the necessary information for this evaluation has been described as not very clear and even as absent by some informants. *“As you can see there are some indicators. Every 3 months they [the department of Monitoring and Evaluation] ask the department of HRH where are you? How about this indicator? How about that indicator? So it is not complicated for them. I don’t see it that way but they do. There is some monitoring”* (key informant). While the framework does not say so, one informant clarified that the report will be a chapter in a general report to the minister and his/her deputies in 2015. No description of independent parties participating in this evaluation was

identified. Nor was there any reference to a separate report or plan for follow up to this process identified in the framework.

In 2007 the central authorities were exploring options of expanding their role (WHO, 2007b; Observatory, 2011). The engagement of autonomous professional organizations to regulate scopes of practice has not yet taken form, nor is it acknowledged in the framework. Informants don't think that associations are ready to take on this role: *"we have a lot of associations as family doctors of surgeries, of dermatologist and so many specialties but usually they are working more in improving the clinical capacity of their professionals and organizing some conferences and congresses and going abroad and not covering other issues. I cannot say that in Moldova we have the capacity to delegate this to some professional associations because even licensing and certification is under the minister of health"* (key informant). Informants identify the Nursing Association as *"more strong and progressive"* in relation to medical associations but *"I don't think they are able to help in some way at the moment. We plan to use them to develop the professional registries of doctors and nurses and in the future I can see them in this but now I don't see a role for them"* (key informant).

Transparency

Openness and clarity in decision-making and allocation of resources. Important for decision-making, budgeting, and tracking of expenditures (Kaplan et al. 2013)

All informants referred to the scarcity of financial resources and human capacity as significant in the Republic of Moldova. This is an important reason to monitor financial resources diligently. A budget for implementation of the HRH unit's activities is one of the most elementary ways in which a government can be transparent. The country was in the process of preparing a National Health Account (NHA), according to the Observatory (2011). One was not available at the time of this assessment. It was also not possible to obtain information about the percentage of the total health sector devoted to salaries. No computerized system for salaries exists as of yet. Moreover, while the government has established HRH units at all levels of the health system the Observatory (2011) reports that local authorities do not have any say in the budget and that all planning tools and mechanisms still lie in the hands of central authorities (Observatory, 2011).

How salaries compare and how professionals are paid is clear. The country uses a 3-tiered salary scale both for nurses and physician. There are various ways one can advance from the lowest category to the higher categories. In some cases advancement in salary tier is provided as an incentive for professionals to move to rural areas. In most advancement is according to years practiced. Salaries also vary depending on specialty in the case of nurses physicians, with emergency physicians being the highest remunerated group (Galan, 2012).

When asked about a budget for the framework, *“what budget do you mean? For the action plan?”* (pause) *good question...*” (key informant) another said *“good luck! You won’t find one”* (key informant). Budgets help clarify decision-making and guarantee commitment to an issue. *“Without a budget towards achieving the Conceptual Framework, mechanisms and instruments of the MoH are extremely limited”* (key Informant), said one informant. *“There is allocated budget for salaries, co-payments and for medical education, for continuing medical education. that’s all. They do not have a budget for the HRH unit.”* (key informant). Instead the activities outlined in the action plan will have to be implemented using three different funding sources: the state budget, the NHIC budget and international funding. In the case of NHIC funding, the activities associated with the framework will compete with the 45-55% of funds allocated to health institutions for HRH by NHIC. This is the same pool of money that health managers need to use to pay for HRH salaries. Some activities will be implemented using donor funding and any activities occurring in institutions receiving state funding, such as the NCHM or the Public Health institute can use the funding towards HRH development. Informants identified some actors as more influential than others and that as more influential people are associated generally with different institutions these institutions would perhaps be more successful at implementing their objectives. This is a good reason for collectively deciding on and allocating funds to different institutions so that access to funds does not depend on negotiation and personalities.

Information

Timely accurate information enables stakeholders to make evidence-informed policies, and to take action when goals and standards are not met. Relevant to decision makers throughout the health system, at the policy, program, and management levels

(Kaplan et al. 2013)

The Republic of Moldova has used information to contextualize its HRH situation in the framework. It has done this with the help of an HRH Data Unit in the National Health Management Center (NHMC) that it created in 2010. This same unit is responsible for submitting one of the most complete health data sets in the Health For All database collaboratively managed by the OECD, WHO and the European Council. Vertical diseases are particularly well documented. The SEEHN health workforce observatory is currently part of this center and is conducting a study on push pull factors of nursing in Moldova out of the (Observatory, 2012). Developing information systems for health workforce has been the area of greatest recent data investment in the Republic of Moldova. Since 2007 the WHO Europe office has been reporting the lack of professional registers in the country with the argument that such a registry could help in planning the number of physicians and nurses trained (WHO, 2007b). As a result the framework has planned for developing the information systems required to collect this information,

starting with the physician registry. This was initiated well before the framework with the help of the International Organization for Migration (IOM). When the registry was not updated after the IOM project ended in the government with the help of the European Council and the WHO/Europe reinstated information systems as an action area for realizing the second objective in the framework. While it is was not made explicit in the framework or the action plan, informants from the international projects explained that there will be a particular focus on training staff and ensuring sustainability this time using a training the trainer model. This will have to take into consideration that currently only 31.9% of HR staff have Internet access is not addressed (Galbur, 2011a). A health technology assessment has been designated in the MoH to start addressing this issue (Observatory, 2011).

While data has been collected a recent technical report questions the in-house analysis capacity at the HRH Department. One informant explained that while information is increasingly being collected it is not clear how much analysis is occurring. Moreover, Galan (2011) and Galbur (2011a) report that some information has been submitted incorrectly due to issues with aggregation. For example some urban areas have been misclassified as rural and the stock of physicians that has been documented includes dentists, researchers, managers and teaching staff thereby reporting 39.5 physicians per 10000 when the actual ratio is more like 25 physicians per 10000 (Galan, 2012). This represents a gradual decrease in the number of physicians per 10000 over the years and only 50% of EU ratios (Galan, 2012; Ciurea, 2007).

This same report expresses the concern that emigration of health workforce has not been monitored despite the National Bureau of Statistics having a well-developed database monitoring overall emigration from the country and confirming that this group of migrants are highly educated (Galan, 2012). There is also no data on HRH employed by Private sector even though there is an expectation for this information to be reported (WHO 2007; Observatory, 2012). The HiT report explains that no information on informal caregivers has been collected and therefore this group has been getting little recognition or training. While not mentioned as a priority in the framework's action plan the HiT report identified some efforts looking into assessing costs and approving cost of community and home care. Currently information collection is also being reported as fragmented and information systems at the HRH Data Unit in the NHMC as not yet coordinated with other data systems. This has resulted in limited linkages between general determinants of health and health outcomes with health policy. The creation of a national registry is not the only information system that was started prior to the framework. A primary health care (PHC) database was created to register all nurses and physician working in PHC (Ciurea, 2007). This same database also includes a detailed inventory of 1261 PHC

institutions and a GIS mapping the location of the registered HRH and health institutions (Ciurea, 2007).

Efficiency

Extent to which limited human and financial resources are applied without unnecessary waste, delay, or corruption (Kaplan et al. 2013)

The regulation of the private sector and the effect of a growing private sector in the country is not very clear. The HiT report writes that „many health services are provided by the private sector (mainly specialized ambulatory care providers, diagnostic laboratories, pharmacies and, less frequently, hospital and primary health care providers“ (Observatory, 2011). However when asking informants about the role of the private sector all agreed that its role is still very small. Either way the National Health Plan 2007-2021 and the Health System Development Strategy for 2008-2017 are trying to increase the role of the private sector to improve efficiency. In 2008 the government reported that PHC practitioners were not able to sort out contracts with private health insurance companies (Republic of Moldova, 2008). In response to this observation amendments were made in 2009 to reduce barriers to private interests into the health sector allowing HRH to sign contracts with private sector (Observatory, 2012). Since then a new private hospital has been built in Chisinau. Regulations in 2008 have allowed the approval to contract NGOS specialized in palliative care and mental health care to improve efficiency (Observatory, 2012). The same has been done for radiography and diagnostic imagery (World Bank, 2013). Informants all mentioned however that little is known about the private sector because of its small size and poor reporting.

The National Health Insurance agency is one of the more important ways that the government has tried to improve efficiency. That is to divide purchaser from provider. This has not been criticized much in the literature nor by informants however decreasing out of pocket payments is recognized as a high priority²². The roadmap does however refer to the NHIC role as still one of fund distributor rather than a quality control mechanism and the need for the NHIC to purchase services more based on performance (Republic of Moldova, 2011a).

The Republic of Moldova has taken several measures in the area of incentives and „these are well known to all Moldovans“ (key informant). The incentives vary according to location and housing, gas and electricity (WHO 2011). In 2007, a Health Protection Law gives young medical specialists free accommodation, a one time bonus, monthly reimbursement of some utility expenses, and a raise to the category 2 pay scale after graduation. A similar incentive is in place for young nurses and midwives

²² Out of pocket payments are highest in paying for medicines (73%) and highest among the poorest quintile where these payments can amount to up to 370% of their monthly income (Observatory, 2011)

who can expect to be raised in status to Category 2 after one year of service²³ (WHO, 2007b). Family physicians, specialists and nurses who agree to work for 3 years outside of the two major cities of Balti and Chisinau have successfully increased the number of nurses and halted decline of physicians. One informant suggested that physicians seem to respond more to training opportunities and the opportunities to work with advanced technologies. While incentives exist in rural areas and the primary health sector Galan (2012) calls for more incentives to further improve the lack of health workforce in rural areas.

Informal user fees are one way to detect inefficiencies in remuneration schemes. A formal campaign is ongoing in the country to remind patients that they should not participate in such fees but informants report that this still happens, albeit at a decreasing frequency.

While it was not possible in this research to assess whether there has been an improvement in quality of care (such literature does not exist in the English language) it is possible to assess the quality of evidence-based policies and decisions in regards to HRH. The informants are unified in saying that the government has made some important achievements over the past years. *“There is a commitment!”* (key informant). All mentioned the NHMC as one such example. *“two years there was nothing...I would say they are in very early stage on analyzing traditional statistics and data because it is very scant information that comes together... let’s say the structures are there better than before. The people within the structures are mostly the same and their capacity and understanding as to what is the role of this management center and what is the role of the ministry needs to be clarified or it needs practicing. I think they just need more practice. I’m optimistic”* (key informant).

Equity

The degree to which policies and procedures apply equally to everyone (Kaplan et al. 2013)

Inequality clearly exists between providers at the moment because investments have been made with the help of donor assistance into some areas more than others. This has caused some specialties and centers to be favored as places of employment. The salary scale however is something that is still so centralized that it is not possible for managers or local authorities to influence this and the inequity lies within the government who remunerates some specialties more than others. No issues of unpaid salaries were noted but salaries being lower than neighbouring countries is quoted throughout the literature and amongst informants as the driving force for mobility out of the country or sector. Medium-level personnel have reached 86% of national salaries in 2010 (Galan 2012). In 2010 in some specialties physicians have wages more than 35% above the national average in 2010 (Galan 2012).

²³ The current set up is that there exist 3 categories of salary supplements. They are Category 1, 2 and 3 with the third category resulting in the highest remuneration. Category 3 professionals receive an additional 50% in their salary; category 2 professionals receive a 40% raise and Category 1 receives a 30% raise in salary (WHO 2007b, Galan 2012)

This however seems to be an exception as for that same year Galbur (2011a) reported the average earnings of HRH to be 35% of national average. This is most likely because of the large difference between nurses and physicians, which the WHO (2007b) reported to be as great as 30-40% difference. Primary nurses are paid the worst currently, while emergency services in 2007 and today remain the highest remunerated service (Galan, 2012).

Care in rural areas is quoted as problematic frequently (Observatory 2011, Edwards 2011; Galan 2012). Recruiting providers from rural areas who are then more likely to chose rural areas as their workplace is a strategy used in several countries with positive effects (Kaplan et al. 2013). Galan (2012) suggests that this is still an underused strategy in the Republic of Moldova and one informant referred to a need *“to ensure that becoming a doctor and practicing is not an issue of how much you can pay but how equipped you are and how good you are”* (key informant). In 2006, the World Bank did fund a Rural Education program for health professionals (World Bank 2006) and in 2011 a Moldovan delegation to a WHO technical meeting reported that a special admissions quota for students from rural areas had been put in place (WHO, 2011). Given that some of the country’s regions such as the south remain grossly under-serviced the country could probably benefit from such a strategy. Incentives have already helped bring a lot more nurses to rural areas (Galan 2012). A current initiative grants 3 years of government housing to nurses (Galan 2012).

Responsiveness

Ability of the government and other institutions to respond to population health needs at both the regional and local levels (Kaplan et al. 2013)

With health systems being faced with increasing demands and rapid technological and epidemiological changes, pre-service education must reflect these changes and government can take a leadership role in delegating the authority to training institutions to adjust its services as needed. The Republic of Moldova with the assistance of the World Bank has developed an intricate network of primary health clinics. *“I saw in some villages some nicely staffed phc units having a nurse that was working there but there are not very many. If these units are staffed with at least a nurse great. If not you can imagine that nothing is happening there. There are also remote areas in Moldova because the roads infrastructure is very very bad where both nurses or doctors are missing and the population is very very poor. They have practically no access to health care”* (key informant).

Education is an important means of making the system more responsive to changing population health needs. The Republic of Moldova has a long tradition of education. The country joined the Bologna process in 2004 and made changes to the medical school curriculum (WHO, 2007b). There is only one medical school in the country, which train physicians and dentists. It is located in Chisinau, the capital city. The country has 5 medical colleges, which train nurses and other medium level professionals. The

country has expressed commitment to modernizing its medical education system and to adjust to EU and the World Federation for Medical education standards and practices (Observatory, 2012). Already in 2007 three new roles were announced along with accompanying curricula. These new programs included a training program in family medicine, a health manager training program at the Public Health college and a Public health degree (WHO 2007b). The first Masters in Public Health was awarded in 2005 (Galan, 2012). The roadmap for implementation of the National Health Policy announced support for primary care as well as prevention and control of non-communicable diseases (Republic of Moldova, 2011a). The School of Public health also offers short courses in health management and public health for those not able to commit to that much training (Galan, 2012).

The country is not only trying to adjust the content of its curriculum but also the methodology of teaching. As of 2011 the country invested in a modern simulation centre for learning (Observatory, 2012). Plans have also been made to increase length of residency. This will mean five or six years for surgical disciplines, three to four years for therapeutic disciplines and three years for disciplines related to the pharmaceutical and public health sectors (Observatory 2012). In 2010 the government approved a development strategy to reform medical and pharmaceutical education in the country (Republic of Moldova, 2010). Most informants mentioned the influence of this document as being greater and very important to the development of HRH. Despite these efforts however, in-class training still dominates (Edwards 2011) and experiential learning opportunities have been described as poor (Edwards 2011). There is only one teaching hospital for the entire country (Observatory 2012). Several informants mentioned the influence of the educators at the medical university in the reform of HRH. Some mentioned a generational gap between the educators in the colleges and universities and the people working on HRH through the ministry, its institutions and the donor organizations. This gap was identified as one of the reasons why reforms might not follow through but also why other reforms will be more successful.

Education reform and curriculum change should not be restricted to pre-service education. For systems to be responsive it is also important that countries provide the support needed for continuing medical education (CME) to continue. Legislation stipulates that physicians must have 325cr every 5yrs while nurses and pharmacists to have 200cr/5yrs. Main providers of this education are the medical school in Chisinau, the Public Health management school in Chisinau, the National colleges of medicine and pharmacy and the centre for professional training of medical and pharmaceutical mid-level personnel in Balti, the country's second largest city (Galan 2012, Observatory 2012). It is not clear, however, how much this is enforced and Galan found that not a single person has failed this process or had their licence removed (Galan 2012).

The Moldovan government have articulated agreement with this need saying that training programs and more CME is needed (Galbur 2011). Edward's (2011) hospital report informs us that there is a large concern that doctors are not up to date to work on their own in these settings. This could be due to what several reports have identified as chronic under funding for CME (WHO 2007, Edward 2011, Galan 2012). One informant said that rural doctors have to travel to cities for this education and that this is one of the reasons it is not effective. Without a change to the structure of these courses but also the costs physicians will continue to just update the bare minimum number of courses. Another informant described the continuing education sector as "*completely unreformed*" (key informant). Yet another said, "*It is a system of so called CME but it is not in fact and is the same as the one inherited from the Russian system 20-30 years ago. And it is also run by the university. Everything is run by the university. When it was proposed to completely reform the CME system and to put it on a new basis and to give it to somebody else nothing happened and there was such strong opposition. So for the moment nothing was done. So I suspect that updating knowledge is very poor for health professionals, especially doctors working outside of Chisinau. In Chisinau they have some opportunities with foreign projects. There are many.*" (key informant)

It is also not clear if the education reforms will affect other professionals than nurses. In 2011, Galan reports that no reforms in education have been made for nurses and midwives (Galan 2011). The action plan does identify plans to introduce a bachelor level degree for nursing and midwifery (Republic of Moldova 2012).

There is no evidence of what in-service education is like in the country at this level of analysis and with the current group of informants.

Voice and Participation

Individuals are able to act through institutions that represent their interests, and the interests of a larger group (Kaplan et al. 2013)

The Observatory reports that the number of people being informed by health reform is quite high and has risen from 69% to 74% between 2008 and 2010 (Observatory, 2011). A 2005 Law on Patient Rights and Responsibilities also stipulates that all decisions pertaining to economic, administrative or social character with a potential influence or impact on the population health should take into consideration public opinion. The ministry is also reported to collaborate closely with other sectors. "*The MoH is in close collaboration with Ministry of Education, Ministry of Economy, Ministry of Labour, Ministry of Finance in HRH planning and medical school admission process*" (key informant).

However, no stakeholder map was conducted for this research and one informant suggested that one should be done to show how very large it is saying there may be too many actors.

Other informants felt it was the opposite and that the ministry and the government, in general, dominate in such a way that participation is not possible: *“The role of the Ministry of Health in strengthening the health workforce is extremely high, so it reduces the accountability of local public authorities and managers of health care institutions in human resources. As a result, managers of rural (disadvantaged regions) wait passively for action from MoH to solve problems”* (key informant). Another informant clarified, *“the action plan for the implementation of the HRH development framework approved by MoH in 2012 was exclusively intra-sectoral and did not contain any joint activities with other ministries”* (key informant). The MoH has identified different indicators for the different objectives and their corresponding activities. Indicators include new centers, methodologies, reforms, systems, regulations, mechanisms, courses, plans, numbers of graduates new positions and educational opportunities, physical resources and agreements. They do not include assessments of progress, input from patients and health care professionals. One informant said that the development of the framework was supposed to be developed *“in detail in the health system with participation of professional associations, other ministries, NGOs etc. but the project was transformed, placed on MS website for public consultation and sent to medical and medical education institutions for coordination, but not organized to hold some workshops or conferences at which to discuss the project”* (key informant). Informants referred to the consultations as *“unsatisfactory”* and *“ineffective, so the final decision belongs exclusively to MoH”* (key informant).

Despite some informants arguing that there is not enough participation, all informants were aware of several entry points for people to have input. These include local level consultation processes, increasingly the media, an internet portal on the ministry and governments' websites but also the old soviet tradition of visiting the ministry. This suggests that rather than there being too much or too little participation it is an uncoordinated way of filtering this participation. The 2005 law on patient rights and responsibilities stipulates that patients may institute legal procedures against health providers and that every facility must display information on how to do this. However in practice providers have been redirecting complaints to authorities such as hospitals, physician associations, and NHIC to the MOH directly (Observatory, 2011). There is no formal unit at the MoH and rather than redirecting patients back to the appropriate level of provider the MoH usually ends up facilitating the complaint. Moreover if the patient is not satisfied the MoH appoints an independent committee of experts by ministerial order (Observatory, 2011). There is some indication that patient representative organizations are increasing in numbers.

One informant who consulted health providers and professionals in the field said that participation in the drafting of the framework was problematic. Despite the framework having worked with several stakeholders there are still many health professionals and hospital managers who were not familiar

with the framework by 2012. Moreover these individuals who were not familiar with the framework expressed an interest to be included in future prioritization. Indeed it is not clear what the consultative process was for this framework although the framework mentions that it included civil society. One informant thought the process of input for decision making is also occurring at the wrong stages. „Participation is often occurring once a lot of effort has already been invested in decisions and therefore the process is stalled rather than getting this input early on before the drafting of decisions“(key informant).

CONCLUSIONS

This research has shed light on some of the important dynamics behind what has been a major effort on the part of the Republic of Moldova’s government, more specifically the Ministry of Health, in strengthening its HRH. The Moldovan government has faced some significant challenges since its independence from the Soviet Union in 1991. Despite these challenges the country’s government and ministry of health has remained quite focused on the HRH issue. It has also engaged some important actors in its efforts and it provides many entry points for different stakeholders to be involved. It has also done important work in improving its efficiency through the establishment of the NHIC, NHMC, and a network of PHC clinics. It has shown responsiveness through its strategy for Medical and Pharmaceutical education and has a long history and commitment to promoting education of its workforce.

It is impossible using the current methodology to rank the areas of greatest challenge or the areas of greatest weakness. However if using the Mikkelsen-Lopez et al. (2011) framework of inputs and processes it becomes a bit easier to identify whether the weaknesses and strengths are more amongst the inputs to governance or the processes of governance. From this assessment it seems that the country is more effective at realizing governance inputs rather than processes. Based on the document analysis and the interviews with key informants the processes that require particular development are in translating high-level goals to operational targets, ensuring accountability and improving transparency.

Despite its fundamental importance Smith et al. (2012) when looking at 7 developed countries showed that only 3 developed countries were able to demonstrate an ability to formulate comprehensive and clear goals for its health system. It seems the same is the case for the Republic of Moldova. The country has articulated HRH as a priority both in its National Health Plan for 2007-2021 and again in its

health strategy development plan 2008-2017 but has not clearly defined its HRH activities in terms of specific activities and targets.

Accountability in the country suffers from lack of clear role delegation and as a result of this weakness but also its slow progress in decentralization a lot of responsibility remains with the central authorities and national HRH unit. Once roles have been delegated and decentralized the HRH unit can commit more to the role of coordination in HRH strengthening. The Moldovan case demonstrates how accountability has also affected participation and unlike the cases presented by Dieleman et al (2011) where entry points are missing the problem in the Republic of Moldova is steering this feedback in a productive way at a productive time.

This lack of accountability also hinders transparency. In the current case study more accountability might also include enable a more efficient allocation of resources that can be reflected in a clear budget. Tracking and report cards can then be used. These have been recommended for all countries by Brinkerhoff and Bossert (2008).

Other processes that are affected by the poor development of accountability process are the processes of information collection and the efficiency process. A particularly strong government role is required in ensuring that the private sector is not monopolizing health workforce in such a way that the health workforce is not draining the public health sector of its health workforce. Until this has not been developed and until information collection enforced for the private sector all information remains non- comprehensive and inadequate.

From the interviews it is clear that given poor capacity the Moldovan MoH has at times taken its own direction with strengthening HRH. Looking more at how change is being achieved through the Development Strategy for Medical and Pharmaceutical Education (Ministry of Health, 2010) may prove to be useful in better understanding not only who is more influential than the MoH in the process of strengthening HRH but also what mechanism besides governmental authority may be more effective.

For a governance framework to be useful Mikkelsen-Lopez et al argue that the framework should 1) reveal where governance issues are; 2) weigh the individual elements composing governance in order to identify major drivers for strong or weak governance and 3) provide a systematic way to assess these complexities (Mikkelsen-Lopez et al. 2011). This research has not only demonstrated the application of such a tool but also demonstrates how important it is that an assessment of governance

of HRH looks beyond than government orders and strategic documents and speaks first hand with the people actively participating in the process. After conducting a document analysis, the most insight was gained during the targeted interviews with key informants who interact with the ministry in the area of HRH. It is important to have the tools to do this. There is a strong need to refine this very important process so that the Kaplan et al. (2013) framework for Health Workforce and Governance combined with the Mikkelsen-Lopez et al. (2011) input-process framework can be optimally applied. Furthermore, in response to Dieleman et al.'s (2011) work showing that less than 25% of the research available in this area has been conducted by national authorities, it would be even more valuable if this final tool is complemented by national ownership.

BIBLIOGRAPHY

Baez- Camargo, C. (2011). *Working Paper Series No. 10: Accountability for Better healthcare provision: A framework and guidelines to define understand and assess accountability in health systems*. Basel Institute on Governance. Switzerland: Basel.

Baez-Camargo, C and Jacobs, E. (2011). *Working Paper Series: A Framework to Assess Governance of Health Systems in Low Income Countries*. Basel Institute on Governance. Switzerland: Basel.

Brinkerhoff, D. W. and Bossert, T. (2008). *Health governance: Concepts, experiences, and programming options*. Washington, D.C: United States Agency for International Development

BBC. (2011). *Moldova country profile*. BBC News. Retrieved on March 28, 2013 from: http://news.bbc.co.uk/2/hi/europe/country_profiles/3038982.stm

Ciurea, Daniel. (2007). *Technical Report: Development of a National Master-plan for the Primary Care Workforce and Infrastructure. Moldova*. Health Services and Social Assistance Project. Chisinau.

Council of Europe. (2012). *Recommendation CM/Rec(2012)8 of the Committee of Ministers to member states on the implementation of good governance principles in health systems*. 1149th meeting of the Ministers' Deputies: Council of Europe.

De Saving, D., and Adam, T. (2009). *Systems thinking for health system strengthening*. Geneva, Switzerland: World Health Organization.

Dieleman, M. G. (2009). Human resource management interventions to improve health workers' performance in low and middle income countries: a realist review. *Health Research Policy and Systems*, 1-13.

Dieleman, M. S. (2011). Improving the implementation of health workforce policies through governance: a review of case studies. *Human Resources for Health* , 1-10.

Edwards, Nigel. (2011). *Improving the Hospital System in the Republic of Moldova*. Health Policy Series No. 1. Copenhagen: World Health Organization

European Observatory. (2012). The Republic of Moldova: Health system review. *Health Systems in*

Transition. Vol. 14 No. 7.

Galan, A. (2012). Final Report: Evaluation of the “Human Resources for Health Development” Strategy and its Action Plan from Republic of Moldova”. Chisinau

Galan, A. (2012). Technical Report: Institutional analysis of the Ministry of Health Human Resources for health management and the capacity of the Human Resources departments of medical institutions in the Republic of Moldova. Chisinau

Galbur, Oleg. (2010). Report: On analysis of health human resources in the private system. Chisinau.

Galbur, Oleg. (2011). *Report: On the Analysis of Human Resource management issues in the medical institutions*. Chisinau

Galbur, Oleg. (2011a). *Report: On the Analysis of Human Resource management issues in the medical institutions*. Chisinau

Galbur, Oleg. (2011b). *Report: Referring to analyze the phenomenon of migration of Moldovan population, including health professionals*. Chisinau

Galbur, Oleg. (2011c). *Report: Referring to the assessment (geographical, sectoral, by field, gender) of the existing human resources in the health sector trend analysis for the past seven years*. Chisinau.

Galbur, Oleg. (2011d). *Report: On the assessment of demographic process (by age, gender, environment, trends for the next 10 years) and morbidity analysis in the Republic of Moldova, neighbouring countries, and European Union, trends and changes in the last 7 years*. Chisinau.

Galbur, Oleg. (2011e). *Report: Concerning the evaluation of attractiveness of the medical profession (either in the higher education, or the secondary one) in the last 7 years*. Chisinau.

Ghecea, B. and Gudumac, I. (2004). Labour Migration and Remittances in the Republic of Moldova. Retrieved from on March 20, 2013 from:

http://pdc.ceu.hu/archive/00002327/01/Raport_Migration_Remittances_2.pdf

Islam, M. (ed.) (2007). *Health systems assessment approach: A how-to manual*. Submitted to U.S. Agency for International Development in collaboration with Health Systems 20/20, Partnerships for Health Reformplus, Quality Assurance Project, and Rational Pharmaceutical Management Plus. Arlington, VA: Management Sciences for Health.

ILO. (2007). *Report on Occupational Safety and Health in the Republic of Moldova*. Chisinau: International Labour Organization.

Kaplan, A. D. (2013). Human resource governance: what does governance mean for the health workforce in low and middle-income countries? *Human Resources for Health* , 1-12.

Kaufmann, D., Kraay, A., and Zoido-Lobaton, P. (1999). *Governance matters*. Washington, D.C.: The World Bank.

Kirigia, J. M., & Kirigia, D. G. (2011). The essence of governance in health development. *International Archives of Medicine*, 4(11).

Kuhlmann, Ellen., Batenburg, Ronald., Groenewegen, Peter P., Larsen, Christa. (2013). Bringing a European perspective to the health human resources debate: A scoping study. *Health Policy*. 110 (2013): 6-13

Lewis, M. and Pettersson, G. (2009). *Government in health care delivery: Raising performance*. Policy Research Working Paper 5074. Washington, D.C.: The World Bank.

Mackenbach, J. a. (2013). A comparative analysis of health policy performance. *The European Journal of Public Health* , 1-7.

MSH. (2012). *Governing for Better Health: A Targeted Literature Review*. Cambridge, MA: Management Sciences for Health.

Mikkelsen-Lopez, I., Wyss, K., & de Savigny, D. (2011). An approach to addressing governance from a health system framework perspective. *BMC International Health and Human Rights*, 11(13).

The Ministry of Health (2010). *Programului de dezvoltare a învățământului medical și farmaceutic în Republica Moldova pe anii 2011-2020* (The Development Strategy for Medical and Pharmaceutical Education). October 2010. Chisinau.

The Ministry of Health (2012a). *Conceptia- cadru de dezvoltare a resurselor umane in sistemul sanatatii (2011 -2015)* (Conceptual Framework for development of human resources in the health system). February 2012. Chisinau.

The Ministry of Health (2012b). *Planul de actiuni pentru implementarea conceptiei-cadru de dezvoltare a resurselor umane in sistemul sanatatii* (Action Plan for implementing the Conceptual Framework for development of human resources in the health system). March, 2012. Chisinau.

The Ministry of Health (2013a). HRH Unit Description. From Ministry of Health Website. Retrieved May 1, 2013 from <http://www.old.ms.gov.md/ministry/structure/departments/dirmanaggersmed/>

The Ministry of Health (2013b). Legislation regarding Human Resources for Health. From the Ministry of Health Website. Retrieved on May 3, 2012 from: <http://www.ms.gov.md/ro/legislatie>

Observatory, E. (2011). *Health Professional Mobility and Health Systems: Evidence from 17 countries*. Copenhagen: European Observatory Studies Series.

Omaswa, F., & Boufford, J. I. (2010). *Strong ministries for strong health system: An overview of the study report: Supporting Ministerial Health Leadership: A strategy for health systems strengthening*. New York: The Rockefeller Foundation.

OECD. (2008). *The Looming Crisis in the Health Workforce: How can OECD countries respond?* Paris.

Palese, A., Cristea, F., Mesaglio, M., and Stempovscaia, F. (2010). Italian-Moldovan international nurse migration: rendering visible the loss of human capital. *International Nursing Review*. March: 57(1): 64-9.

Partnership (2011). Consolidated comments of development partners active in the health sector on the Roadmap for Moldova. December 15, 2011. Chisinau: Sectoral Coordination Council

The Republic of Moldova. (2005). Standards for Assessment and Accreditation for Health Institutions in the Republic of Moldova: Chapter V. Human Resources Management. Chisinau.

The Republic of Moldova. (2007). Health Care System Development Strategy for the period 2008-2017. Chisinau.

The Republic of Moldova. (2011a). Boost up the reforms: addressing health needs through investment policies. The Policy Roadmap for Moldova. Chisinau: The Ministry of Health. Chisinau: The Ministry of Health.

The Republic of Moldova. (2011b). Regulation: Organization and Operation of the National Ministry of Health. Chisinau: Retrieved on May 1, 2013 from

<http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=338783>

The Republic of Moldova. (2012c). *Guvernul Hotarire Nr.289 cu privire la aprobarea Planului de acțiuni al Guvernului pentru anii 2012-2015* (Governmental Decision Nr. 289 on Governmental Action Plan for 2012-2015). Retrieved from website on May 31, 2013: <http://lex.justice.md/md/343206/>

Tirdea, Marcela. (2012). National Health Action Plan: Preliminary results of implementation Activity Plan of the Ministry of Health in 2012. Presentation to the Ministry of Health.

Rutebemberwa E, K. A. (2012, Issue 5). Interventions for managing the movement of health workers. *Cochrane Database of Systematic Reviews*, 1-18.

Siddiqi, S., Masud, T., Nishtar, S, Peters, D., Sabri, B., Bile, K., Jama, M. (2009) Framework for assessing governance of the health system in developing countries: Gateway to good governance. *Health Policy*, 90: 13–25.

Wendt, D. (2012). *Health system rapid diagnostic tool: Framework, operational guide and metrics: To measure the strength of priority health system functions*. Durham, HC.

WHO. (1994). *Nursing and Midwifery Profile: Moldova*. Copenhagen: World Health Organization.

WHO. (2000a). *Nursing and Midwifery Profile: Moldova*. Copenhagen: World Health Organization.

WHO. (2000b). *The world health report 2000: Health systems: Improving performance*. Geneva, Switzerland: World Health Organization.

WHO. (2004). *A guide to rapid assessment of human resources for health*. Geneva: World Health Organization.

WHO. (2005). *Highlights on health in the Republic of Moldova 2005*. Copenhagen: World Health Organization.

WHO. (2005b). *Nursing and Midwifery Profile: Moldova*. Copenhagen: World Health Organization.

WHO. (2006). *Working together for health: The World Health Report*. Geneva: World Health Organization.

WHO. (2007a). *Everybody's business: strengthening health systems to improve health outcomes: WHO's framework for action*. Geneva, Switzerland: World Health Organization.

WHO. (2007b). *Republic of Moldova: Human Resources for Health Profile*. Copenhagen: World Health Organization

WHO. (2007c). *WHO Regional Committee for Europe resolution EUR/RC57/R1 on health workforce policies in the European Region*. Belgrade, Serbia: World Health Organization Regional Office for Europe.

WHO. (2008). *Health system governance: Toolkit on monitoring health systems strengthening*. Geneva, Switzerland: World Health Organization.

WHO. (2009). *WHO Regional Committee for Europe resolution EUR/RC59/R4 on health workforce policies in the WHO European Region*. Copenhagen: World Health Organization Regional Office for Europe.

WHO. (2010a). *Increasing access to health workers in remote and rural areas through improved retention: Global Policy Recommendations*. Geneva: World Health Organization

WHO. (2010b). *Policies and practices of countries that are experiencing a crisis in human resources for health: tracking survey*. Paris: World Health Organization.

WHO. (2011). *Technical Meeting on Health Workforce Retention in Countries of the South-eastern Europe Health Network*. Bucharest: World Health Organization.

WHO. (2011b). *Monitoring, evaluation and review of national health strategies: A country-led platform for information and accountability*. Geneva, Switzerland: World Health Organization.

WHO & SEEHN (Southeastern European Health Network). (2011). *Attracting and retaining health workers in the member States of the South-eastern Europe Health Network. A policy brief*. Copenhagen: World Health Organization.

Wismar, M., Glinos, I.A., Maier, C.B., Dussault, G., Palm, W., Bremner, J. et al. (2011) Health professional mobility and health systems: evidence from 17 European countries. *European Observer*. 13 (2): 1-4

APPENDIX 1: Key Documents

1. Ciurea, Daniel. (2007). *Technical Report: Development of a National Master-plan for the Primary Care Workforce and Infrastructure. Moldova*. Health Services and Social Assistance Project. Chisinau.
2. Edwards, Nigel. (2011). *Improving the Hospital System in the Republic of Moldova*. Health Policy Series No. 1. Copenhagen: World Health Organization
3. European Observatory. (2012). The Republic of Moldova: Health system review. *Health Systems in Transition*. Vol. 14 No. 7.
4. Galan, A. (2012). *Technical Report: Institutional analysis of the Ministry of Health Human Resources for health management and the capacity of the Human Resources departments of medical institutions in the Republic of Moldova*. Chisinau
5. Galan, A. (2011). *Final Report: Evaluation of the "Human Resources for Health Development" Strategy and its Action Plan from Republic of Moldova*". Chisinau
6. Galbur, Oleg. (2011a). *Report: On the Analysis of Human Resource management issues in the medical institutions*. Chisinau
7. Galbur, Oleg. (2011b). *Report: Referring to analyze the phenomenon of migration of Moldovan population, including health professionals*. Chisinau
8. Galbur, Oleg. (2011c). *Report: Referring to the assessment (geographical, sectoral, by field, gender) of the existing human resources in the health sector trend analysis for the past seven years*. Chisinau.
9. Galbur, Oleg. (2011d). *Report: On the assessment of demographic process (by age, gender, environment, trends for the next 10 years) and morbidity analysis in the Republic of Moldova, neighbouring countries, and European Union, trends and changes in the last 7 years*. Chisinau.
10. Galbur, Oleg. (2011e). *Report: Concerning the evaluation of attractiveness of the medical profession (either in the higher education, or the secondary one) in the last 7 years*. Chisinau.
11. The Ministry of Health (2010). *Programului de dezvoltare a învățămîntului medical și farmaceutic în Republica Moldova pe anii 2011-2020* (The Development Strategy for Medical and Pharmaceutical Education). October 2010. Chisinau.
12. The Ministry of Health (2012a). *Conceptia- cadru de dezvoltare a resurselor umane in sistemul sanatatii (2011 -2015)* (Conceptual Framework for development of human resources in the health system). February 2012. Chisinau.

13. The Ministry of Health (2012b). *Planul de actiuni pentru implementarea conceptiei-cadru de dezvoltare a resurselor umane in sistemul sanatatii* (Action Plan for implementing the Conceptual Framework for development of human resources in the health system). March, 2012. Chisinau.
14. The Ministry of Health (2013a). HRH Unit Description. From Ministry of Health Website. Retrieved May 1, 2013 from <http://www.old.ms.gov.md/ministry/structure/departments/dirmanagersmed/>
15. The Ministry of Health (2013b). Legislation regarding Human Resources for Health. From the Ministry of Health Website. Retrieved on May 3, 2012 from: <http://www.ms.gov.md/ro/legislatie>
16. ILO. (2007). *Report on Occupational Safety and Health in the Republic of Moldova*. Chisinau: International Labour Organization.
17. Palese, A., Cristea, F., Mesaglio, M., and Stempovscaia, F. (2010). Italian-Moldovan international nurse migration: rendering visible the loss of human capital. *International Nursing Review*. March: 57(1): 64-9.
18. Partnership (2011). *Consolidated comments of development partners active in the health sector on the Roadmap for Moldova. December 15, 2011*. Chisinau: Sectoral Coordination Council
19. The Republic of Moldova. (2005). Standards for Assessment and Accreditation for Health Institutions in the Republic of Moldova: Chapter V. Human Resources Management. Chisinau.
20. The Republic of Moldova. (2007). Health Care System Development Strategy for the period 2008-2017. Chisinau.
21. The Republic of Moldova. (2011a). Boost up the reforms: addressing health needs through investment policies. The Policy Roadmap for Moldova. Chisinau: The Ministry of Health. Chisinau: The Ministry of Health.
22. The Republic of Moldova. (2011b). Regulation: Organization and Operation of the National Ministry of Health. Chisinau: Retrieved on May 1, 2013 from <http://lex.justice.md/index.php?action=view&view=doc&lang=1&id=338783>
23. The Republic of Moldova. (2012c). *Guvernul Hotarire Nr.289 cu privire la aprobarea Planului de actiuni al Guvernului pentru anii 2012-2015* (Governmental Decision Nr. 289 on Governmental Action Plan for 2012-2015). Retrieved from website on May 31, 2013: <http://lex.justice.md/md/343206/>
24. WHO. (1994). *Nursing and Midwifery Profile: Moldova*. Copenhagen: World Health Organization.

25. WHO. (2000a). *Nursing and Midwifery Profile: Moldova*. Copenhagen: World Health Organization.
26. WHO. (2005). Highlights on health in the Republic of Moldova 2005. Copenhagen: World Health Organization.
27. WHO. (2005b). *Nursing and Midwifery Profile: Moldova*. Copenhagen: World Health Organization.
28. WHO. (2007b). Republic of Moldova: Human Resources for Health Profile. Copenhagen: World Health Organization
29. WHO. (2011). *Technical Meeting on Health Workforce Retention in Countries of the South-eastern Europe Health Network*. Bucharest: World Health Organization.
30. WHO & SEEHN (Southeastern European Health Network). (2011). Attracting and retaining health workers in the member States of the South-eastern Europe Health Network. A policy brief. Copenhagen: World Health Organization.

APPENDIX 2: Question Key

1. In your opinion, how is the Ministry of Health doing in strengthening the health workforce in the Republic of Moldova? (setting priorities, delegating tasks, evaluating and monitoring, showing accountability for the outcomes)
Do you think they have enough information to believe the importance of HRH in health delivery?
What are your reasons for thinking that?
2. Besides the MOH who in your opinion plays an important and active role in informing decisions the MoH makes about HRH?
3. What can you tell me about the HRH unit in the MoH?
4. Is there any organization or actor that you think could have valuable input into HRH decision making? If so, what is holding them back?
5. What do you think about the Conceptual Framework for the Development of HRH?

4 objectives:

To generate balanced human resource supply for the health system

To optimize HRH management in order to ensure better distribution of the health workforce

To organize continuing medical education (CME) of the health workforce based on health system needs, modern practices and international standards

To better manage HRH mobility

Do you think the time line is realistic?

Do you think the 4 objectives are indeed the objectives such a document should prioritize?

7. What can you tell me about the government's ability to monitor and evaluate its success with implementing HRH framework?
8. What about the private sector? Is the government monitoring the private sector?
9. The global health community talks about health systems needing to be participatory, what can you tell me about how the government gets peoples input?
10. Do you know if doctors and nurses provide up to date care? What makes you think that?
11. Is there anyone else you recommend I speak to, to gain more insights?

SUMMARY

This thesis sheds light on how the government of the Republic of Moldova is governing its Human Resources for Health (HRH). While the literature is rich in analyzing HRH issues at the clinical level (ie. motivation, management strategies, team dynamics, incentives), recent literature has been calling for more attention to the overlap between health governance and HRH (Kaplan et al., 2013; Dieleman, 2011). Given the unique HRH challenges the objective of this research was to apply an adapted version of a tool developed by Kaplan et al. (2013) for assessing Governance of HRH. The tool has been used because of its focus on linkages between the inputs and processes involved in strengthening HRH and those that improve governance. In identifying where these linkages exist and do not in the Republic of Moldova this analysis makes some practical and feasible recommendations for improvements so that governance of HRH in the country is more responsive to the needs of its population. The primary areas for concerted focus are accountability and transparency. The research also suggests ways in which the Health Workforce and Governance Framework presented by Kaplan et al. (2013) can be improved primarily in regards to how it can be combined with Mikkelsen-Lopez et al's (2011) input-process framework of governance. More research needs to be done in this area and it needs to be nationally-directed to gain more complete insight into the country's governance of HRH.

RESUME

Cette thèse montre la façon dont le gouvernement de la République de Moldova dirige ses ressources humaines en santé (RHS). Alors que la littérature est riche à analyser les questions de RHS au niveau clinique (ex.: motivation, stratégies de gestion, la dynamique de l'équipe, les incitations), la littérature récente demande que la communauté académique donne plus d'attention au chevauchement entre la gouvernance et les RHS (Kaplan et al. 2013 ; Dieleman, 2011). L'objectif de cette recherche était d'appliquer une version adaptée d'un outil développé par Kaplan et al. (2013) pour l'évaluation du gouvernance RHS dans le pays. L'outil a été utilisé pour la raison que l'outil accentue les liens entre les entrées et les processus impliqués dans le renforcement et l'amélioration des RHS. En identifiant où ces liens existent ou non dans la République de Moldova cette analyse produit des conseils concrets et réalisables pour l'amélioration de gouvernance des SHR pour que ça soit plus sensible aux besoins de sa population. Les principaux domaines d'efforts concertés sont la responsabilisation et la transparence. La recherche suggère aussi des façons dont le personnel de santé et le cadre de gouvernance, présenté par Kaplan et al. (2013) peut être améliorée principalement en conseillant une façon dont le cadre peut être combiné avec le cadre dichotomique entrée-processus de Mikkelsen-Lopez et al de (2011). La recherche reconnaît le besoin de plus de recherche dans ce domaine, surtout d'une recherche qui tienne compte le perspective des chercheurs nationaux afin de mieux comprendre la gouvernance des RHS dans le pays.