

## COMMENTARY

# A brief review of the draft human resources for health strategic plan, Ethiopia; 2009-2020

Takele Geresu<sup>1</sup>, Meseret Shiferaw<sup>2</sup>, Getnet Mitike<sup>3</sup>, Damen Haile Mariam<sup>3</sup>

### Introduction

Human resources for health (HRH) is one of the six building blocks of the WHO framework for health systems (1). Human resources for health do consume a significant bulk of the health sector expenditures and also constitute a critical block of health systems as they affect the efficiency and effectiveness with which the other building blocks function. While HRH has remained neglected for years, recent decades have witnessed a wider attention both by the global health community and national governments as a critical ingredient to improving health outcomes. The World Health Report 2006 signifies an important milestone following which several consultations, initiatives and approaches to address HRH have taken effect at global, regional and country levels (2). The establishment of an HRH Secretariat within the WHO, the Global Forums on Human Resources for Health in Kampala and Thailand (3) as well as the ongoing efforts by the WHO African regional office to support ministries of health to address the HRH crisis are but few of the indications for these positive development.

According to the 2006 World Health Report (2), 57 countries are grappling with a serious health workforce crisis out of which 36, Ethiopia included, are in the African region. In order to address the HRH crisis, the Federal Ministry of Health (FMOH) of Ethiopia has drafted human resources for health (HRH) strategic plan for the period 2009-2020 (4). The draft document has been developed to support the human resource requirements of the health sector in Ethiopia to achieve the Health Sector Development Program (HSDP) plans which are in line with health related Millennium Development Goals (MDGs) and the objectives of the Plan for Accelerated and Sustainable Development to End Poverty (PASDEP) (5).

The HRH strategic plan is developed on the basis of major strategic issues identified through situation analysis and has drawn its objectives, strategic interventions and performance measurement. It has also benefited from reviews of relevant guidelines and manuals on HRH as well as from benchmarking the experiences of other countries.

The strategic issues identified include: low density and insufficient skill mix among health workers; low training capacity with low output for major HRH categories; not well aligned pre-service education output with the need

of the health sector; poorly distributed health staff in the country with significant deficit in rural areas and underserved regions; high attrition rate of physicians from public services; staffing that is not related to actual workload; lack of standardized in-service training; poor HRH management at all levels that is inadequate to address the concern of health workforce in terms of motivation and performance evaluation; lack of organized Human Resource Information System (HRIS); inadequate regulatory framework in support of HRH development and management as well as licensing; and absence of monitoring and evaluation framework for HRH.

Using the Workload Indicators for Staffing Need (WISN) methodology, average staffing standard has been established as a basis for projection of requirements of different cadres of health workers for 2015 and 2020. In addition, other parameters such as economic growth and expected changes in staffing standards due to epidemiologic transition have been utilized for estimating future requirements of the various categories of HRH.

Based on the above estimates, the projected total requirements for all health workers for the year 2020 are over 180,000, which is a three-fold increase over current figures. Projected requirements for selected categories of health workers are summarized in the table below:

Table 1: Requirement projections for selected cadres for 2015 and 2020 (Source: 4)

<i>HR Category</i>	<i>Projections for</i>	
	<i>2015</i>	<i>2020</i>
Clinical specialties	5178	6941
Public health professionals	1400	2158
General Practitioners	10,846	14,930
IESO	996	1611
Health Officers	6345	8293
Midwives	8,635	9,866
Nurse	41,009	49,362
Anesthesia professionals	2,332	3,439
Health extension workers	33,320	41,664
Total (not all categories shown)	146,142	183,826

The strategic plan has particularly emphasized the critical need for meeting requirements for medical doctors, midwives and anesthesia professionals. Based on the projections of the strategic plan, the ratio of

<sup>1</sup> Health Advisor, Irish Aid-Ethiopia, Addis Ababa;

<sup>2</sup> Independent Consultant, Addis Ababa, Ethiopia;

<sup>3</sup> School of Public Health, Addis Ababa University, Addis Ababa

physician to population will improve significantly from 1 per 40,000 population in 2007 to 1 per 5,000 in 2020.

The training of the health workforce is envisaged to be undertaken within the existing medical schools and those to be newly opened as well as regional hospitals and to follow a team approach along with the trainings of midwives and anesthesia professionals so as to meet the expected high service demand of these professionals. In addition to the conventional approach, an innovative medical training curriculum is to be launched that will recruit entrants with first degrees in different fields of science to the medical education program at selected universities and hospitals across the country.

The draft strategic plan also explores a range of incentive mechanisms in the short to medium terms to improve the existing problems in the HRH retention, deployment and distribution. A monitoring and evaluation framework for HRH has also been outlined for the strategic plan period.

The total estimated cost for the strategic plan is projected to be USD 596.22 million for the 12 years planning period with salaries and benefits, policy plan and management, and education and training as the three HRH budget domains.

#### **Purpose of the Review**

The need to review the strategic plan takes into account a number of considerations. For one, the HRH strategy is the first of its kind through which the Ministry of Health has articulated its intentions to systematically address the HRH crisis in the country. This is a strategic measure to be lauded on its own right and lessons have to be drawn from this undertaking both the Ministry of Health and other key stakeholders. Secondly, the paramount importance of HRH policy and strategy guiding the recruitment, education and training, deployment, and management of the human resource for health as a critical health system component cannot be overemphasized. In connection with this is the pragmatic and intellectual desire to stimulate dialogue among policy makers, professionals, training institutions and other relevant stakeholders while translating the strategy into realistic actions. It is a foregone conclusion that the HRH situation that Ethiopia and many Sub-Saharan African Countries are currently grappling with was borne out of a variety of factors operating independently and in synergy over the course of decades and can't go away overnight. Regardless of how robust the strategy might be, it is incumbent upon all concerned to constantly review approaches and draw lessons from the ground through dynamic and transparent processes to sustainably address the HRH challenges. This review aims to contribute its humble part to that process.

#### **Approaches**

A framework provided by the WHO African Region for the development of HRH policies and plans (6) provides guidance on the process with proposed content of three

basic HRH documents: situation analysis, policy, and strategic plan. This review attempts to examine the contents of the national HRH strategic plan in light of the above three contents. Reviewers recognize the potential limitations of such guidelines and appreciate the need to adapt them to country situations and therefore have chosen a rather practical approach in examining the national strategy than judging the document for strict application of the framework provided by AFRO. Furthermore, the present review focuses on key processes and content and does not delve into discussion of detail in as much as possible. It is also worth noting that the review does not attempt to assess how well the plan has been implemented, which is not the purpose of the article but could have implications for some of the discussions and arguments presented.

Although the HRH Strategic Plan, 2009-2020 is not yet officially endorsed, through informal communication, Ministry of Health officials have welcomed the review and expressed verbal consent to use the draft document (4) (not dated and shared electronically).

#### **Situation Analyses**

Chapter two of the HRH strategy, covering a total of eleven pages, describes the HRH situation in the country in what is called the "AS IS" document. Among others, this section covers density and distribution of health workers, performance, migration, financing, educational system, HRH management and policy, planning and legislative context.

A discussion of the **distribution of health workforce** across geographic areas, cadres, gender, public vs. private, underscores the importance of such disaggregation as the average density level may mask significant variations along the selected parameters. Key issues discussed include; a) skew towards urban areas and the private sector particularly among physicians, b) occupational imbalance in favor of health extension workers and nurses, c) only 18% of public sector workers deployed in health centers as against hospitals. Whereas these analyses and conclusions are quite relevant to policy and strategy development, it would have benefited from a tabular presentation of data on the number and distribution of different cadres across the parameters discussed.

What one cannot see in isolation from the volume, distribution and mix of the health workforce is their level of **performance**. Determining how well providers perform their tasks as compared with expected standards is quite useful and strategic information in the process of developing HRH plans. However, the HRH strategy does not provide any information on the subject which it attributes to lack of reliable human resource information system in place as yet. One would ask if the circumstances dictate the use of anecdotal evidences, reports of studies of limited scale and conducting a rapid assessment to better understand the factors affecting

providers' performance. Such studies could well address barriers to observing ethical practice among health workforce as a way to understand its contribution to staff performance and plan measures to alleviate the problem.

**Health workforce migration** is one of the areas that the situation analyses section of the HRH strategy touches upon but with very little details. Given the relatively high level of outmigration of health workers (particularly that of medical doctors), sufficient review of push factors could have shed more light towards targeted actions to address the subject in the short and long term periods.

**Financing the health workforce** has been presented with focus on how providers' salaries affect their performance, the share of salaries from the total recurrent health expenditures and the challenges of balancing the financial efficiency goals of the sector with the need to optimize the levels, distribution and performance of health workforce. It also refers to a report on HRH system capacity assessment that analyzed the adequacy and efficiency of the salary bill for Ethiopia, although key findings and recommendations for actions from the document has not been presented. Furthermore, levels and sources of expenditures for health workforce financing has not been discussed.

**Educational system** for HRH has been given ample space in the document with more than three pages deservedly dedicated to the subject. Salient issues discussed under different subheadings include:

- a) Low institutional acceptance rates of health professionals training institutions particularly that of medical doctors;
- b) Low gross enrollment ratio for secondary schools;
- c) Only 10% of students succeed in entering university education;
- d) Limited number of medical schools and chronic shortage of qualified and experienced teaching staff; and
- e) Gender inequities in education.

Reasons for low institutional acceptance rates include, according to the document, limited number of training institutions and limited capacity. However, the scale of the limitation in number and capacity of training institutions, a vital piece of information for strategic planning is not discussed. A report based on assessment of midwifery schools highlights infrastructure and equipment, shortage of academic and non-academic staff and lack of experience thereof, limited opportunities for clinical practice, lack of student centered environment and very low academic ability and poor English language proficiency among students were highlighted as some of the major findings (7). Reports of similar nature, if available, supplemented with a well-designed assessment, could inform the need for additional number of training institutions and planning to improve their capacities.

As regards **HR management**, the strategy presents a framework for rapid assessment of HRH management across three different levels, macro, meso and micro and summarizes the key responsibilities and attempts to describe major problems across those levels. For purposes of clarity, one would expect an explanatory note on what these three levels represent in the sector's management hierarchy. Shortage of skilled HR management professionals, lack of functional job analyses and career path for certain types of health workers, lack of data on relevant HRH variables, working environment and intra-level communications have been listed among the major management challenges. In terms of communication across levels, inadequate and incomplete communication between the Federal Ministry of Health and regional administrative levels regarding HR functions has been identified as one critical problem. With frequent restructuring of public sector organizations (including the FMOH), the reviewers could not be sure whether the above two departments would still exist at the time the review gets published.

The section reviewing the **policy and legislative context** makes reference to a number of relevant documents including the WHO guidelines for legislation affecting the development of human resources for health (8), World Health Assembly Resolution 59.23 (9), the Ethiopian health policy (10) and the civil service proclamation no. 515/2007 (11). Highlights that apparently indicate the way forward in terms of policy, planning and legislations governing HRH include:

- a) The health policy does not provide a comprehensive frame of reference for HRH development in the country;
- b) There is no HRH specific document outlining a short and long term plan;
- c) Lack of health profession regulation and code of ethics and health professions specific laws;
- d) Directives and policies on job evaluation and grading, performance appraisal, recruitment, promotion and transfer, remuneration, HR development and information system are in draft stage and have not implemented; and
- e) Whereas the Ethiopian Health and Nutrition institution is established by law, the responsibility and legislative ground pertaining to research and development of HRH is not addressed in any legislative document.

A review of how well relevant policies and laws affecting HRH are implemented appears to have been constrained due mainly to the fact that many of these documents have to be in place yet or are not implemented. However, the merits of the review of the policy and legal environment in identifying key gaps as stark reminders of the status quo and charting the way forward cannot be underscored.

**The HRH Policy**

Chapter six of the draft HRH strategy discusses issues regarding the policy and legal framework for HRH. The Chapter takes up by reiterating key policy and legislative gaps discussed in previous paragraphs and relates on additional issues including: a) lack of provision for the FMOH's involvement in accreditation of health professionals training institutions; b) no adequate legislative basis for privacy protection of health professionals' information; and c) lack of policy to address outmigration of health workers.

While the HRH strategy recognizes the lack of HRH specific policy, it is evident that it had to rely on other related documents that shed light and provide framework to guide its development. Rightly so, the document has largely drawn from the health policy (10) and the health sector development program (HSDP) (12) in addition to the major problems that it has identified as baseline reported under the situation analyses section.

The figure below (figure 1) attempts to schematically present if and how well the three documents, i.e. health policy, HSDP III and the major problems discussed in the HRH strategy are aligned.

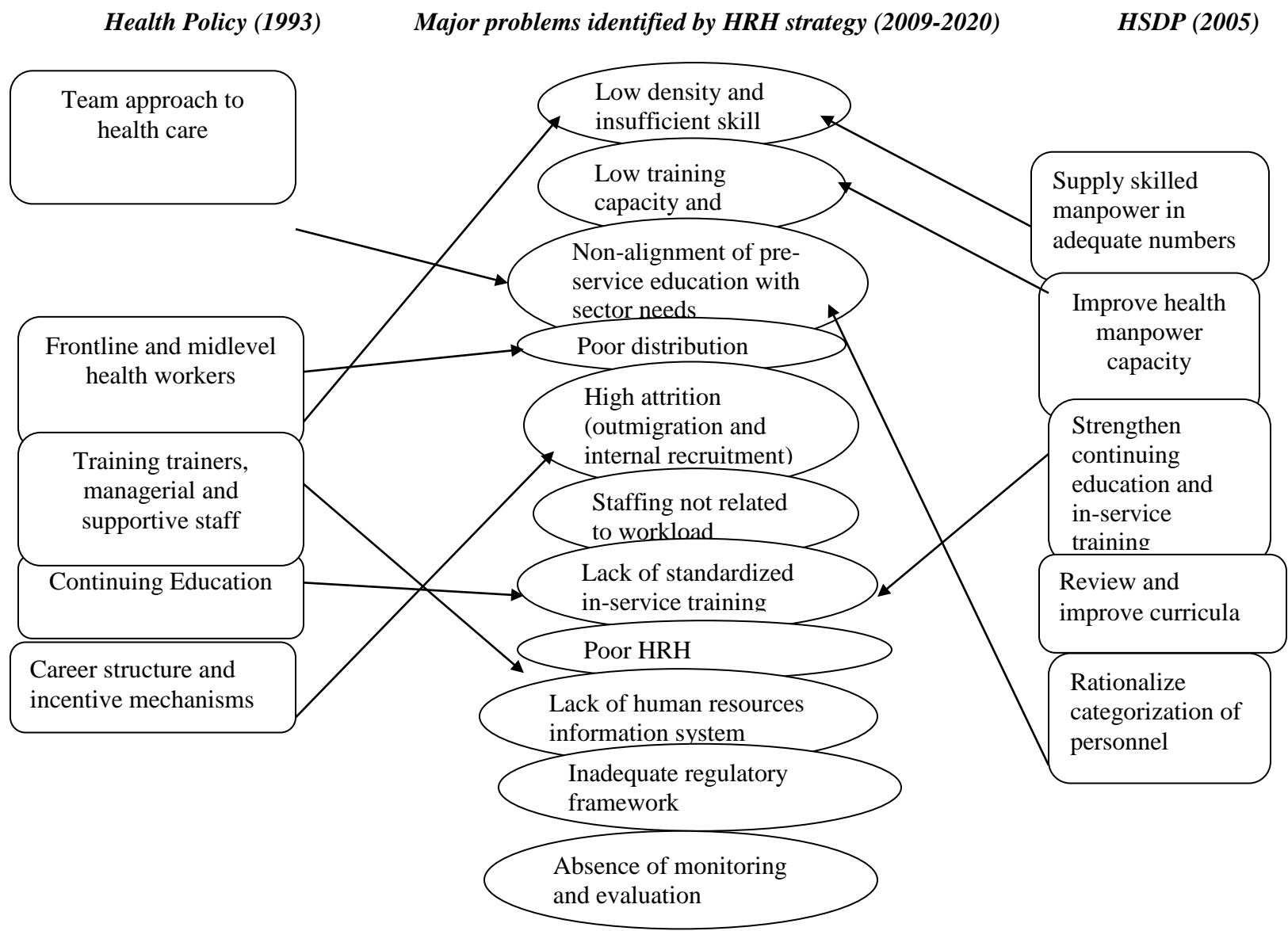
A quick look at the table shows that the current HRH strategy identifies eleven major problems out of which the health policy directly or indirectly touches upon six of these problems. The HSDP III on its part addresses only four of the eleven strategic issues identified. Despite the fact that the health policy is nearly two decades old, it is apparent that it better resonates with the HRH strategy than the HSDP III. It is also worth noting that

there are three themes that both the policy and the HSDP address: a) low density and insufficient skill mix; b) non-alignment of pre-service education with sector needs; and c) lack of standardized in-service training. Four of the eleven problems that the strategy identified are not addressed both by the policy and HSDP document; these are: a) staffing not related to workload; b) lack of HRIS; c) inadequate regulatory framework; and d) absence of M&E.

These simplistic presentations and comparisons would have obvious limitations one of which is the nature of issues that the three specific documents are supposed to address, their principal purpose and the temporal variations in their development. However, two observations could be made from the discussions here; ensuring synchronicity across official documents and the need for the development of a HRH policy to guide all stakeholders in the effort to address the HRH challenges of the country.

One of the performance targets that the HRH strategy outlines to address policy issues is 'integrate comprehensive policy direction for HRH as part of the national health policy by the year 2010'. The present review did not come across the said policy document as the reviewers are not aware whether this has ever been developed to date. Whereas there are arguments for a separate HRH policy document, it is the prerogative of the Ministry of Health and key stakeholders to develop and disseminate such a document, in whatever format as a demonstration of the political commitment for HRH and to guide coordinated action thereof.

**Figure 1: Schematic presentation of alignment between HRH strategic plan, HSDP and health policy**



### The Strategic Plan

Parts of the document that fall under the strategic plan are: a) Chapter 3, Methodology for HRH projections, b) Chapter 4, HRH Skill mix, requirement, c) Chapter 5, HR Management, d) Chapter 7, Monitoring and Evaluation, and, e) Chapter 8, Costing the HRH strategic Action Plan. In the following sections, the article attempts to review key issues under each of these chapters.

Chapters three and four essentially address the same issue. While chapter three describes the techniques used to project HRH requirements, chapter four presents the findings of the projections and the strategic approaches to produce the desired numbers of selected cadres.

After reviewing the literature for different methods of **health workforce projections**, the Workload Indicators of Staffing Needs (WISN) had been adapted to determine **average staffing standards** for five levels of care and the country's **HRH requirements for the years 2015 and 2020**. However, an adequate description of the method applied and the processes involved is lacking. Furthermore, it has been cautioned that the average staffing standard is to guide the requirement projection and not as a checklist for regulatory purposes as each facility has as yet to develop its staffing needs based on WISN method.

The section on **production of HRH** identifies 14 cadres of health professionals that the strategy aims at increasing their volume during the plan period. In order to demonstrate the current and projected shortfall for the specified categories, one would expect to see the current levels of productions and the rate at which the level of production is to increase so as to meet targets. A tabular presentation of the above scenarios would have been more useful to present the volume of additional training needs and provide baseline for monitoring purposes. Subsequent sections related with production of health workers such as expansion of training facilities, educational resources and faculty focus on processes and do not set specific outcomes to be achieved during the plan period.

HRH requirement projections indicates that there is a need for a total of 5178 clinical specialists by 2015 and 6941 by the year 2020 from around 600 available in public health facilities in 2002EFY (2009/10G.C.) (13). The strategic document, however, does not indicate the strategic interventions that should be undertaken to attain this massive increase in clinical specialists over the stated periods. As mentioned above, the training of clinical specialists become all the more important as they are badly needed to staff the increasing number of medical schools in the country.

Nurses are the backbone of the Ethiopian healthcare delivery system as they are engaged in all types of service and at all level of the health system. Unfortunately, changes in the naming of nurses and their

duties and responsibilities were repeatedly made in the past. The current training of clinical and public health nurses was a change made from the former comprehensive nurses training program during the previous regime. The strategic plan proposes the training of standard comprehensive nurses but the rationale for the reversion to the previous training program is not indicated in the document. Such changes, if done frequently and without adequate justification, have negative psychological effects on the professionals, besides the significant cost required for retraining and upgrading the health workers.

**Human resources management** has been treated extensively in the strategy document and bases its discussion on the recognition of the need for a major reform and a comprehensive approach to HRH planning. Several management functions including planning, information systems, personnel management, in-service training, continuing professional development (CPD) and career progression, incentive mechanisms, accreditation, licensing and certification are discussed. Following structural reform in the FMOH, the report highlights the fact that the management and the regulatory functions of HRH fall under the Directorate of HRH Management and the Directorate of Health Facilities and Professionals Licensing respectively.

Strategic interventions identified to improve HRH management appear to be well aligned with what is discussed under the situation analyses. Most of these strategic interventions however dwell on processes and do not have specific measurable outputs, outcomes and impacts targeted by the strategic plan. Furthermore although the plan sets out to strengthen the HRH Directorate by placing adequate and competent staff, adequate preparatory work and oversight is warranted to ensure the speed and quality with which the plan is to be implemented. The Africa Region Roadmap (14) for HRH identifies limited capacity for HRH leadership and governance in terms of planning, management, monitoring and evaluation which is essentially in agreement with that is reported in the situation analyses section above and goes on to suggest commensurate actions at ministries of health, district health management teams, and health facilities management teams at country including other agencies or sectors responsible for employment, regulation and transfer of health workers. In tandem with the regional roadmap, the national HRH strategy has identified the restructuring of human resource development and administration functions at all levels of the health system as one of its key actions.

Establishing a HRH leadership and management center under the FMOH had also been proposed as one strategic measure to strengthen HRH management. Whereas the benefits of such a center are all too apparent, exploring alternative options such as using existing institutions shall not be ruled out.

An elaborate discussion of the processes, scope of partnership and a selection of four levels of indicator to strengthen the **monitoring and evaluation** system is given under Chapter seven of the strategic plan. Profiling the health workforce and facilitating evidence based policy making stand out among the many improvements that the M&E process stipulates for the plan period. A list of 37 indicators, their data sources and how they are going to be disaggregated is presented in a tabular format. Discussed under the subheading HRIS in chapter five, plans are also in place to develop HRIS software for phased implementation at federal, regional, woreda and facility levels. Operational plans on how to institute the desired system would reveal the level of preparedness and implementation challenges to translate these aspirations into concrete actions. Those involved in developing the operational plans may consider the incorporation of indicators that are recommended at international and regional levels to monitor country progress in mitigating the HRH crisis.

**Costs estimated to implement the national HRH** strategy are given to amount 596 million USD in a summary table that identifies three major “HRH domains”, i.e. a) salary and benefits, b) policy, plan and management, and c) education and training. It appears from the table that while expenditures for domains “b” and “c” are calculated for the entire plan period, that of salary and benefits is considered for one year only distorting the overall total. How much of the budget is already secured and what the shortfalls are and wherefrom those gaps are to be covered is not presented.

Budget items addressed for policy, plan and management systems takes into account a discrete set of actions that include HRIS software development, preparation of legal documents, manuals and guidelines and undertaking studies. Of particular concern here is the lack of budget lines required to restructure HRH management at various levels and to upgrade the profile of key offices. Regardless of whether establishing and HRH leadership and management center under the FMOH is justifiable, this activity is also not budgeted for.

Costs for education and training are divided into pre-service and in-service training with the former taking 80% of the total 455 million USD and detailed costing to be listed in part two of the strategy document.

A typology of incentives from about fifteen countries in Africa had been reviewed to help benchmark and examine their implications for Ethiopia. Apart from what are discussed as the processes involved and the development of manuals and guidelines to establish realistic incentives to motivate health workers and improve their productivity, a definitive package that has been costed is housing benefits and salary increments to health workers particularly to ‘rare skill’ professionals. This approach has been opted as the main strategy to improve the supply of health workers to hardship areas.

Staff costs related to salaries are estimated to reach 350 million USD per year by 2020 and the assumptions taken into account described. What is missing is if and how much an increment over current salaries and benefits is planned under the budget scenario to health workers at large. All said, adequate recognition of the role of health workers in national development and the consequent need to motivate them as one of the strategic measures to improve health outcomes would continue to pose a serious health systems challenge across countries for years to come.

### Summary and Conclusions

It goes without saying that the HRH strategy is a clear demonstration of the importance that the FMOH attaches to addressing the HRH challenges that the sector is grappling with. With the impressive amount of effort that has gone into the document, it elucidates the approaches and strategic actions that the FMOH aims to achieve during the course of the next decade. We would assume that this is a live document and could be enriched as further evidence becomes available and the issues that are addressed under this article tend to focus towards that goal rather than reiterating what has already been entertained. What is more important at this stage is the implementation of the proposed plans with pragmatism, open mindedness and transparency. Properly implemented, the strategy could overcome the long standing mismatch between the HRH needs of the health services and the available health workforce in the country.

Thinking about implementation, one could not but avoid the need to officially release the document for all practical purposes. Officially endorsing and releasing the strategy document is all the more important since it has now entered the fourth year from the total of twelve years that it covers, i.e. 2009-2020. The national HRH strategy makes reference to part two of a forthcoming document but does neither say why it is needed nor what its contents would be. Plans to officially release the HRH strategy could provide an opportunity to further examine the need for such a document and if so how to manage the exercise.

While reference is made to the involvement of stakeholders in the consultation process to develop the strategy, there is very little or no discussion of the how and the nature of partners within and outside the public sector. Among key partners from whose engagement the development of the HRH strategy would benefit are the Ministry of Education, Health Professional Training Institutions, Professional Associations, donors and technical agencies. The model of the Country Coordination and Facilitation (15) suggested by the Global Health Workforce Alliance and implemented in a number of countries could well be adopted by way setting up the national steering committee that the HRH strategy aims to achieve.

To conclude, as much as addressing the HRH challenges in any country has to be largely contextualized to the local political, socio economic and sectoral milieu, it is foregone conclusion that the dynamic and interwoven nature of the agenda necessitates interaction among national governments and engagement with relevant agencies and forums. Soliciting and effective use of external funding, sharing good practices and technical cooperation among countries and with relevant international agencies are but some of the intricacies that have to be managed by resource poor countries. The Kampala Call to Action (16) and the Africa Region Roadmap for Scaling up the Health Workforce (2012-2025) (14), among others, are two outcomes of global and regional level consultations of which Ethiopia was not only part but also had commitments to deliver.

### References

1. World Health Organization (WHO). The WHO health systems framework [cited 2013]; Available at: URL:[www.wpro.who.int/entity/health\\_services/health\\_systems\\_framework/en](http://www.wpro.who.int/entity/health_services/health_systems_framework/en).
2. World Health Organization (WHO). World health report 2006: Working together for health. Geneva: WHO; 2006.
3. World Health Organization (WHO), Global Health Work Force Alliance. Global forums on human resources for health [cited 2013]; Available at: URL:<http://www.who.int/workforcealliance/forum/en>.
4. Federal Ministry of Health, Ethiopia. Human Resource for Health (HRH) Strategic Plan, Ethiopia 2009-2020. Draft. FMOH; Addis Ababa, not dated.
5. Federal Ministry of Finance and Economic Development (MOFED), Ethiopia. A plan for accelerated and sustained development to end poverty (PASDEP) 2005/06-2009/10. MOFED; Addis Ababa, 2006.
6. World Health Organization, Regional office for Africa (WHO/AFRO). Policies and Plans for Human Resources for Health Guidelines for Countries in the WHO African Region. Brazzaville: WHO/AFRO; 2006.
7. Gaym A, Worku B, Getaneh E, Berhe A, Tiruneh T. Report on the National Situational Analysis of Pre-Service Midwifery Training in Ethiopia. WHO office, 2008, Addis Ababa. Federal Democratic Republic of Ethiopia, Ministry of Health. Health and Health Related Indicators. 2002 Ethiopian Fiscal Year (2009/10 G.C.).
8. World Health Organization (WHO). Guidelines for legislation affecting the development of human resources for health. Geneva; WHO; 1992.
9. World Health Organization (WHO). World Health Assembly (WHA) resolution 59.23: Rapid scaling up of health workforce production. Geneva; WHO; 2006.
10. Transitional Government of Ethiopia (TGE). Health policy of the Transitional Government of Ethiopia. Addis Ababa; TGE, 1993.
11. Federal Democratic Republic of Ethiopia. The federal civil servants proclamation (proclamation number 515/2007). *Negarit Gazetta* 2007;13(15);3534-3574.
12. FMOH. Health sector strategic plan (HSDP III) 2005/6-2009/10. Planning and Programming Department, Addis Ababa, 2005.
13. FMOH. Health and health related indicators. 2002 Ethiopian Fiscal Year (2009/10 G.C.). Addis Ababa; FMOH, 2010.
14. WHO, AFRO. Roadmap for scaling up the human resources for health for improved health service delivery in African Region 2012-2025: Report the Secretariat, AFR/RC 62/7 21. Brazzaville; WHO/AFRO, 2012.
15. Global Health Workforce Alliance. Human resources for health: Country coordination and facilitation principles and processes. [cited 2013]; Available at: URL:[http://www.who.int/workforcealliance/knowledge/resources/CCF\\_Principles\\_Processes\\_web.pdf](http://www.who.int/workforcealliance/knowledge/resources/CCF_Principles_Processes_web.pdf).
16. Global Forum on Local Development (GFLD). Kampala call to action: Pursuing the MDGs through local government. Kampala, Uganda, October 4<sup>th</sup> – 6<sup>th</sup> 2010 [cited 2013]; Available at: URL:<http://www.uncdf.org/gfld/en/index.php?page=declaration>.