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SCHOOL OF PUBLIC HEALTH

ANALYSIS OF CURRENT SITUATION FOR HUMAN RESOURCES IN HEALTH SECTOR

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PREFACE

Our target is to provide modern, effective, efficient, just, qualified and attainable health services to individuals. In this context, Health Transformation Program has been carried out as a national model to overcome bottlenecks in our health system and to provide a modern health service to our citizens. One of the most important sub-titles of the Program is “Health manpower”.

Health sector is a labor-intensive sector and the most important resource in providing health services is health manpower. A process has been initiated by our Ministry in order to educate manpower which is appropriate to our system, need-oriented, sufficient qualitatively and quantitatively and equipped, to make education programs before and after the graduation compatible with the needs and therefore to improve an effective and efficient service sector.

The most important problem in our health system is insufficiency in health manpower beginning from doctors and nurses and unbalanced geographical distribution. Although our Ministry has achieved to minimize these problems by the policies implemented, insufficiency in number of doctors and nurses has still been an important problem. Imbalance of professions in distribution of health manpower is one of essential parts of problem. Although total doctor number in our country is relatively sufficient, branch distribution is unbalanced. Difference between the rates of doctors and auxiliary health staff is another part of problem that attracts attention. In addition, need for health professions has been increasing rapidly due to the reasons such as our population’s getting older and increase in people’s conscious about health, increase in number of university teachers at faculty of medicine in our country while there is a decrease in number of students. If we want health services to be sufficient and efficient in future, we have to meet the shortage in health staff.

One of the most important components of “Health Transformation Program” carried out by our Ministry is the practice of family medicine. Family medicine practice constitutes the basis of reaching modern norms in health services. General practitioners, dealing with this profession that requires making sacrifices from beginning to its end, will have the opportunity to serve in a system in which they will have their own working areas, offices and patients and also they can reflect their experiences to patients freely and patients will select them.

One of the most important parts of Health Transformation Program is “performance management system” which desires to get more effective results by motivating health staff in a way that they notice their potential and which is a systematic management tool consisting of stages of well-defined objectives, performance standards, targets, measurements, feedback and awarding. By this way, a change in understanding of public health services has been reached and a handle for awarding of staff bearing the burden of this service has been given. This process is considered as a continuous learning and developing process, initiated with a structure implemented plainly and simply and developed towards the future by deducing from the results of the current implementations. Performance management not only measures the results, but also directs the organization in accordance with the determined objectives. It ensures the improvement of services to reach the aimed results.

An understanding of meeting demand instead of determined supply has gained importance in public health services. Patient oriented approach promoted by this system, has increased the importance of patients in practices and this has put the quality question on the agenda. Our government, saying “Human first!” gives importance to participation about the issues of restructuring the health system and health transformation.

I present my regards, believing and hoping that these studies, carried out with the aim of constituting one of the milestone in developing policies and strategies for planning the national health manpower, will be beneficial to all institutions and agencies related to the sector.

Prof. Dr. Recep AKDAĞ
T.R. Minister of Health

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The School of Public Health

PRESENTATION

The attempts for improving the health services continue to be the main and priority issue in the world. Studies point that it is necessary to give priority and importance to human factor to ensure a real improvement. Therefore, the need for human resource planning has increased and importance for the presence of appropriate, qualified and necessary human resources in the operation of health system has been conceived in time.

Employees in the health sector have to be sufficient in terms of service quality, human skills and flexibility for accommodating changing conditions. In addition, health staff with sufficient quality and quantity needs to be employed in the right place at the right time to provide an efficient and effective health service. By this way, health service for public will be planned and organized in a better manner, shortages will be made up and problems will be eliminated. It is very important that Ministry of Health and other shareholder institutions and agencies in this sector come together and discuss human resources capacity in Turkey and its problems and propose solutions for these problems.

Under the Reform of Public Administration defined both in Government Program and Emergency Action Plan associated with this program, starting from the main targets whose implementation is foreseen in the health sector under the title of “Health to Everyone”, planning of manpower in health sector basing on the needs has an important role in an efficient and effective health service sector.

Our Ministry has initiated a process for assessing the human resources in health sector under the Health Transformation Program. This process is planned as it comprises the evaluation of current situation, determination of policies and strategies. First of all, analysis of current situation of human resources in health sector has been realized under this process. While planning the future health policies, their technical, administrative and training capacities will be taken into consideration. Thus, after determination of new practices needed in health sector, national policy will be determined.

I would like to thank to everyone who contributed to this study that includes the current situation and problems of human resource in health in Turkey; Directorship of School of Public Health and its staff that are ensured sharing of this book with public for the benefit of decision makers, planners and staff in the health sector, with the belief that this report to be formed for policy making in human resources in health will contribute to further studies.

Dr. Salih MOLLAHALİLOĞLU
Director of the School of Public Health

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ABBREVIATIONS

HTP	Health Transformation Program
MoH	Ministry of Health
HRH	Human Resources in Health
WHO	World Health Organization
MoF	Ministry of Finance
HEC	Higher Education Council
SSI	Social Security Institution
EU	European Union
PHCS	Primary Health Care Services
WHO – EURO	WHO European Countries
GDP	Gross Domestic Product
SDS	Staff Distribution Schedule
IMF	International Monetary Fund
GB	General Budget
CC	Circulating Capital
SPO	State Planning Organization
SEE	Student Elimination Exam
SEPC	Student Elimination and Placing Center
MoE	Ministry of Education
TDA	Turkish Doctors Association

EXECUTIVE SUMMARY

A series of changes occurring in demand and supply of health services in Turkey, leads to new opportunities and new difficulties in health sector. Ministry of Health (MoH) is on its way of being an institution determining strategy at health sector and supervising provision of health services by reorganizing its role as the main supplier of health services under Health Transformation Program (HTP). Some kind of changes has emerged in demand of Turkish community for health services simultaneously under this Program. In this context, MH has realized that effective planning is necessary for human resource as health constituting an essential part of provision of health services. Effective planning for human resources is not an easy work and it requires a strategic planning studies to be realized by MoH and other related institutions jointly.

This report achieves the systematic analysis of human resources at health in Turkey in order to provide information for human resources at health in Turkey. Analysis was realized on the basis of Strategic Planning Guideline on the Financing, Training and Management of Human Resources at Health prepared with World Health Organization (WHO). HRH outputs (in terms of level, distribution and performance), financing effecting that outputs, training and management capacity/policies, strategies established by MoH to struggle for difficulties faced at HRH and policy context that will constitute a basis for future strategic plan are dealt with in this report. Main findings are as follows:

Current Situation of Human Resources at Health (HRH)

Level of HRH

It is observed that HRH levels in Turkey are extremely low as compared to HRH levels of other countries in the region. Especially, both intensity of doctors and nurse rate against doctors are approximately half of figures in other European/OECD countries. Other categories such as chemists and dentists are closer to average of European countries.

Methodologies beyond the measures based on the population indicate that it is more difficult and complicated to assess the compliance of HRH levels in Turkey. On the one hand, evidences, such as achieved increase in frequency of using treatment given in the outpatient clinic with extent of immunization and positive connection between numbers of midwives/nurses, can guarantee the increase in some certain HRH stocks. On the other hand, number of patients per doctor assigned in the first stage is not too much different form the number of patients in other OECD countries and in the light of comparison between Turkey and other two countries (Mexico and South Korea) that has similar health and development indicators with Turkey, it cannot be stated that HRH levels in Turkey are not extremely low.

Distribution of HRH

In spite of the important developments in recent years, imbalance in geographical distribution of HRH is still continuing. Evidences indicate that imbalance in geographical distribution both at provincial and central level is caused by some social and economical reasons.

As illness load in Turkey was considered, there is still problem about mixed skills in the area of HRH due to high number of medical experts over number of general practitioners and low number of midwife/nurse over number of doctors.

HRH Performance

There are some evidences that “Performance based payment system” started to be implemented in health system increases the HRH efficiency at the first and second stages. Indicators such as number of outpatients per doctor and number of patient treated at hospital have increased in recent years. Analysis about this issue has brought up that high profit gained from circulating capital at the provincial level are connected to high vaccination rates.

HRH service supply quality, although there is not too many evidence about this issue, continues to be worrying. Previous reports show that public services provided at the first stage were perceived as insufficient. Studies on the indicators such as nasocomical infection ratios in hospitals show the necessity of improvement.

Capacities and Policies Effecting the HRH Situation

Financing

A clear increase in resources contributed to HRH financing has observed in recent years with the increase of share transferred to health sector from resources of central government and Ministry of Health’s statement about giving priority to investments in health sector. However, there is a risk of facing with limitations for availability of further financing for the government policies on achievement of budget surplus targets and filling the empty positions in the public sector.

There is no concrete sign (about the measurement of amount allocated for salaries by MH) for insufficiency of allocations in HRH financing. Expenditures for HRH especially is not low. Actually, it is at the maximum limit of expenditures for staff in most countries and although most of people think that HRH minimum salaries are low, average income obtained from circulating capital increases total income especially for doctors to great extent. It is not possible to deduce the consequences about technical efficiency at that moment.

Education

At pre-job level, sufficient demand exists for supply oriented national capacity (for instance, faculty/student ratios) at pre-job education in terms of preferring professions about health and especially schools of medicine. But, there have been some differences in supply oriented training capacity between different provinces and HRH schools. There have been some positive improvements for increase the quality such as low student-faculty ratio in medicine schools and transition to four year nurse training schools. However, carrying out a deeper examination and evaluation cannot be possible by using other quality indicators (curriculum standards) in this report.

MH organizes on the job trainings under related general directorates in order to increase the existing capacity of health staff. On the job training for family medicine is an example for these activities.

Management

Lack of a concrete mission for improving human resources and lack of a section/department responsible from HRH planning in MoH prevent an effective HRH planning. Nevertheless,

existing restructuring efforts show that necessity for HRH strategic improvement is noticed. It is observed that infrastructure is sufficient for public sector, but also lack of duty for human resource development prevents the most appropriate method.

Private sector personnel management is less developed since its standards and norms are intensified mostly to physical infrastructure and also it is for providing a few services. Local management capacities of HRH functions are relatively less developed due to the historically structured organization nature of MoH.

Existing strategies of Ministry of Health for HRH

Focusing on the Primary Health Care Services

Family Medicine model is an important component of HTP with its potential to address the aforementioned problems about HRH. Model brings along on the job training for general practitioners in order to meet the target of staff appointment and increased authority at the local level. Many difficulties, such as acquiring citizens back, cooperation with Social Security Institution (SSI), mobilization of family doctor at demanded number and promoting effective team work, will be faced for improving and implementing the model effectively.

Showing imbalance in geographical distribution

Some features, including HRH wage mechanisms such as existing promotion mix at HRH services and circulating capital, compulsory service, personnel distribution tables and contract based employment, indicates the imbalance in geographical distribution of HRH. For instance, compulsory service is a short-term solution and implementation of non-monetary promotions, such as establishing attractive carrier route for staff working in rural and priority development areas, can be difficult.

Showing concerns about the quality

First evidences, showing that performance based salary system helps to increase the service quality, have been obtained.

Political Context

Stakeholders in HRH strategic development period are concerned public institutions, non-governmental organizations and international institutions. The issues of increasing the budget of health sector and supporting of HTP by the government are supported to a large extent. There are some areas not agreed on, yet. For example, Higher Education Council (HEC) and MoH have different opinions about the number of students to be accepted to the faculty of medicine and some HRH institutions (for instance, nurse association) express their hesitations about Family Medicine model. Moreover, SSI as being new and powerful actor, has not stated its political attitude about some issues related to HRH. In future, support of an HRH strategic planning will depend on ensuring and maintaining a new agreement.

Recommended steps for Ministry of Health:

- Continuing to studies for developing a formal HRH strategy through Strategic HRH Assessment in which necessary strategies for existing HRH problems will be defined.
- Ensuring agreement that will lead to concluding a formal final mid and long-term HRH strategic plan between the key stakeholders.
- Sponsoring to other studies for the purpose of developing evidence based approach for further HRH plan.

1. INTRODUCTION

Most of the changes occurring in supply and demand of health services in Turkey bring about new opportunities and difficulties in health sector. MoH is in a transition period in last few years, this transition is from being main provider of health services towards being responsible for determining health sector strategies and supervising of service provision institutionally. This strategic and operational change is realized under HTP aiming to improve the access to service provision, efficiency and quality. Improving decentralization process at province and hospital level and renewal of focus about primary health care services with model of “Family Medicine” are involved in the principles of HTP. Another principle of HTP is extending the scope of health insurance and it is in compliance with social security reform for gathering existing insurance institutions under SSI. There is an improving demand of Turkish population, simultaneously with these measures, for level and quality of health services.

All of these changes have effects in terms of HRH and this is one of the main characteristics of quality of health service provided. The issue, accepted gradually, is that human resources is an important component of health service provision and existence of direct effect of availability of HRH on service outputs ⁽¹⁾. Efficiency of human resources depends mostly on number of labor force and mix of clinical skills. Effective planning for human resources depends on evaluations such as organizing education quality, provision of skill mixes appropriate for health needs of a country and provision of health services to a population. This is not an easy effort, especially in Turkey that has a complicated health system historically and for this reason, requires joint strategic planning of MoH and other stakeholders.

Following report, written by international writers, provides a systematic analysis of human resources at health in Turkey, based on the *Strategic Planning Guidelines for Financing, Training and Management of Human Resources at Health*, prepared together with World Health Organization (WHO)⁽²⁾. Face to face meetings with staff of School of Public Health and foreign consultants together with administrators and specialists of State Planning Organization, MoH, MoF and SSI were realized during the data gathering period of guidelines in consideration. Besides, chairmen of associations and staff of Provincial Directorate of Health in Düzce that is pilot region for Family Medicine practice and Public Health Center, family doctors and public were met and asked for their opinions. Frame used in this report is shown at Figure 1. According to the frame adopted by this report, a series of capacity and policy lever can affect a country’s health targets through its effects on human resource at health. Especially, capacity/policy about financing, training and management – political factors at the same time – form the situation of human resources in terms of level (number), distribution and performance. Human resource outputs in consideration can affect system targets (quality, efficiency, equality / accessibility and sustainability) and consequently health targets of the country as better health situation, equality in financing and ability to meet the citizens demands. Evaluation of HRH and reporting of findings focus on first part of contextual frame in Turkey and these are four policy levers and three HRH outputs.

Figure 1: Contextual Frame For Evaluation Of Human Resources At Health

Capacity and policy levers→	HRH outputs →	System targets→	Health targets
Financing	HRH level	Quality	Health Situation
Training	HRH distribution	Efficiency	Just financing
Management	HRH performance	Equity/accessibility	Ability to meet the demands
Policy making		Sustainability	

This report is part of ongoing strategic plan improving process at health in Turkey. It is expected that report will constitute a concrete basic information and analysis and help stakeholders to address most of the issues about human resources at health systematically. Report submits a series of proposals to help in process of improving strategic plan, based on the evaluation of policy levers and HRH outputs. It is expected that analysis and proposals will establish a dialog between MoH and stakeholders and this dialog will result in a comprehensive strategic plan for HRH in Turkey.

2. REVIEW OF HEALTH SITUATION IN TURKEY

Although health situation of Turkish population has improved to a certain degree in last fifty years, it is still behind OECD countries. Life time is increased to 70 from the level of 55 in 1970. Expected life time for men is 68.9 and for women 73.8. Mortality of babies has decreased 80% (a decrease of 23.6 per 1.000 living babies) and mortality of mothers has decreased 75% (a decrease of 28.5 per 1.000 living babies). In spite of these figures, expected life time in Turkey is 5 years lower than the average of WHO for European Countries and 10 years lower than members of European Union⁽³⁾. Mortality of babies in Turkey is the highest figure between OECD countries⁽⁴⁾. Infectious diseases except HIV/AIDS constitutes 9% of disease load of Turkey and this is in the highest levels in WHO – EUROPE.

In addition, epidemiological tendencies lead to double disease load and this is another problem that Turkish health system has to overcome. As it is the case in most countries, Turkey is in epidemiological transition period and while rate of disease resulting from infectious diseases are decreasing, load of un-infectious diseases are increasing in this period. As a result, according to distribution of mortalities in terms of disease load; 15% of all deaths are due to diseases at I. group (infectious diseases, maternal and prenatal reasons and diseases resulting from malnutrition), 79% due to diseases at II. Group (un-infectious diseases) and 6% due to diseases at III. Group (injuries)⁽⁵⁾. Addressing to this disease load and reducing it create serious difficulties for MoH and health system in Turkey and require an approach that integrates primary health care services (PHCS) and first and second level health services. Also, attention should be attracted to support of preventive and improving services. Measures to change ways of life of older people should be taken to decrease load of both infectious diseases that are preventive at a great degree and chronic diseases.

3. CURRENT SITUATION OF HEALTH HUMAN RESOURCES IN TURKEY

Following text summarizes the current situation of health human resources in Turkey in terms of sections, level, distribution and performance. Issues will be analyzed in order.

3.1 HRH level

HRH level indicates the rate of health professionals in different categories to a certain size of population. Table 1 summarizes the general level of selected categories of health professionals. In Turkey currently there are 98.669 physicians who actively work on full time basis, which means 14,9 physicians per a population of 10.000. Approximately 12 nurses and half thereof (6,5) midwives fall per 10.000 population. Consequently, most of HRH categories work in public sector. In order of other HRH categories, pharmacists and dentists are respectively 2,9 and 2,7 per 10.000 population.

Table 1: Selected HRH * Levels

HRH Category	Physician			Nurse	Midwife	Other
	Specialist	Practitioner	Assistant			
Total	50.732	29.923	18.014	80.836	42.916	160.278
Staff/ 10,000	7,7	4,5	2,7	12,2	6,5	24,2
Public sector rate (Ministry of Health %)	48%	88%	42%	75%	95%	73%

Resource: Republic of Turkey, Ministry of Health 2007.

* These numbers indicate the HRH working in public sector, universities and private sector on full time basis.

It is an issue of debate whether such HRH levels, particularly the physician and nurse levels, are sufficient in terms of Turkey's health needs, demand and expenditures. Ministry of Health has once considered that this general level, particularly the level of physicians, was quite low ^(7,8) However, other stakeholders and those who have reviewed the issue of health sector human resources have not agreed with this issue, asserting that the physician density was not "appropriate" ⁽⁹⁾. Since the perspectives of stakeholders rely on the evidences used for assessing the appropriateness of HRH manpower of Turkey, following text briefly explains the most frequently used criteria.

Rate of HRH per population in other European countries has frequently been used as a criteria in assessing the HRH levels in Turkey. As indicated in Table 2, both physician and nurse density in Turkey – which is measured as the number of HRH per 10.000 population - is quite lower than the figures in other European countries including WHO-EUROPE countries, European Union member countries and Europe B+C countries¹. While the density of physicians is around half of these comparison groups, the nurse levels is around one fifth and one sixth of the rates in this countries. When compared with other European countries, low physician and nurse levels

¹ European B+ C countries include 26 European countries having relatively high infant death rates and low life expectations; for full list, seen World Health Organization Country Notes ⁽¹⁰⁾.

lead to demands towards increasing the general number of health sector staff in Turkey, taking into account the health indicators which are always low in various fields. Other HRH categories have similar level with the European averages. Rate of midwives to 10.000 populations is over the average and a clear gap is not observed in terms of pharmacists and dentist. Both of Turkish Union of Pharmacists and Turkish Union of Dentists consider that the general levels are sufficient for the demand of Turkey ^(11,12).

Table 2: Number of HRH Workers Per 10.000 For Selected HRH Categories

Comparison Group	Physician	Nurse	Midwife	Pharmacist	Dentist
Turkey	14,9*	12,2	6,5	2,9	2,7
WHO-EURO	33,8	67,9	4,4	5,1	5,1
EU	31,8	70,0	3,6	7,2	6,1
Europe B+C	30,7	64,1	5,1	2,8	3,2

Resources World Health Organization 2006, Republic of Turkey, Ministry of Health, 2007

* Involves specialist physicians, general practitioners and assistant physicians

Whereas it was natural to compare HRH densities with other countries in the region on population basis, this measurement does not take into consideration the factors towards demand, which affect the sufficiency of human health power levels. HRH levels of Turkey per person may be low, however, if these levels may cover health services without brining any burden to HRH, this may be inadequate.

As demonstrated in Table 3, rate of outpatient hospital use has increased continuously, and now it is estimated that this number has reached to 5,0 per capita ⁽⁸⁾. For this reason, a second method used for assessing HRH levels of Turkey is analyzing the supply of health services in relation to demand.

Table 3: Per Capita Outpatient Hospital Admission

	2003	2004	2005
Hospital visits	1.8	2.1	2.6
Health Post visits	1.5	1.6	2.2
Total visits	3.3	3.8	4.8

Resource: General Directorate of Primary Health Care Services, annual statistics, annual statistics of inpatient treatment facilities (2003, - 2005)

This methodology is demonstrated in Table 4, here the focus in on the number of demand and physicians in primary health care services. As can be seen, average number of patients per physician is the indicator of health services utilization level which has increased in past years. Concerns pertinent to increasing health services use and excessive work load, has been stated by the Ministry of Health in order to increase the level of physicians in order to cover the clearly increasing demand in health services ⁽⁸⁾.

In a work conducted in order to demonstrate the efficiency in polyclinic services, it has been determined that the period of waiting in the queue for being examined was 47,5 minutes for district polyclinics, 118,13 minutes for hospitals, period elapsed for being examined was 6,3 minutes in district polyclinic and 7,2 minutes for hospitals; and the total period to elapse up to the completion of all processes in the hospital from arrival thereto is 105,75 minutes in district polyclinics and 179,20 minutes in hospitals ⁽¹⁹⁾.

Table 4: Trends in Supply and Demand in Primary Health Care Services

	2000	2001	2002	2003	2004	2005
Health Post visits	51.436.891	58.142.436	55.844.883	66.505.376	74.487.182	105.482.440
Health Post Visit / Physician / Year	3,771	3,875	3,734	4,623	5,545	7,509
Health Post Visit / Day / Physician*	17.1	17.6	17.0	21.0	25.2	34.1

Resource: Republic of Turkey, Ministry of Health, Annual Statistics of Primary Health Care Services, 2005

* Based on 45 hours of work per week and 220 business days per year.

A third method is to analyze HRH levels based on such results as improved community health and service provision indicators in health system. As an example, Table 5 demonstrates the scope of HRH levels and immunization, and the results obtained from time series statistics. Here, analysis has been performed on HRH levels, rates of physicians, midwives /nurses and other HRH to population at primary health care level, and immunization rates at province level². Linear decrease demonstrates the following: Initially there was not meaningful relation on statistical terms over time between the number of physicians and the rate of immunization, there is a negative relation between the rate of population per midwives and nurses and the rate of immunization. Every additional nurse /midwife per 1000 is associated with an increase of 2,4 % in immunization rates. Secondly, a comparative relation with the physicians seems to exist. Thirdly, it seems that various non-HRH elements affect the immunization rates. At province level, a 1 % increase in Gross Domestic Product (GDP) is associated with a 15 % increase in the immunization rate (towards determining some provincial characteristics impacting the immunization rate), and this singly constitutes a variation for 30 % in the immunization rates. These findings demonstrate evidences which are compliant with discussions towards increasing the levels of some HRH categories at the primary level of the system, such as nurses and midwives. This analysis is not sufficient singly to derive sector wide results about HRH levels. Similarly, researches such as complementary analysis using indicators applicable directly to physicians will be beneficial. Together with this, this analysis demonstrates an evidence based method, which enlightens beyond those obtained through population based calculations for assessing HRH levels.

² Immunization rate indicates the average of BCG, DPT (3 Doses), polio (3 doses), MMR, HB (3 doses) and TT.

Table 5: HRH Immunization Rates According To Provinces (2000 – 2005)

	Rate of immunization (x %100)
Population per physician (thousand)	0.002
	(0.55)
Population per nurse/midwife (thousand)	-2.397
	(5.22)**
Population per other staff (thousand)	-0.005
	(0.08)
Log (per capita GDP)	14.228
	(7.52)**
Constant	-25.248
	(1.80)
Observations	485
Number of provinces	81
R-squared³	0.40

Resource: Republic of Turkey Ministry of Health, Annual Statistics of General Directorate of Primary Health Care Service (2000 – 2005); Hamzaoglu and Ozcan (2006), Turkey Health Statistics, Ankara

* Meaningful at the level of 5 %; ** meaningful at the level of 1 %

However, none of the methodologies indicated above considers wider economic restrictions that could be mentioned of in HRH levels. In addition to supply and demand for health services, such factors as level of development, expenditure in health, structure of provision services and others should also be assessed. Although there is high HRH intensity in many European countries, these countries also spend more to health. As indicated in Table 6, per capital health expenditures in Turkey is 35 % of WHO European region countries and one fourth of average of EU member countries. In addition to this, many European countries which have similar health expenditure levels with Turkey experience financial obstacles impacting the physician levels in health system. For example, despite the level of physicians in Slovakia which has been stagnant since 1999, health services system still struggles towards providing an attractive salary to health staff⁽²⁵⁾. Taking into account that Turkey also has similar resource restrictions, it will not be a realistic approach to expect that these levels could be reached without ensuring an economic development simultaneously. However, MoH has increased the share it receives from the budget over past years (2,6 % in 2002, 4,9 % in 2006). State health expenditures as a percentage of total state expenditures has increased to 16,22 % from 9,8 % in 2000⁽²⁶⁾. This demonstrates the commitment of the government towards increasing public expenditures in health sector compared to other sectors. MoF has also expressed clearly that their priority sectors are health and training within the scope of its restricted commitment in the context of multinational finance institutions and private investment markets⁽²⁷⁾. This issue has further been mentioned in Section 4.1.1.

³ Results depend on linear regression Generalized Lower Squares (GLS) regression based on a random impacts resistant linear regression where the automatic correlation is accepted as AR (1). R-square indicates the general variation created upon merging inter-city variation (R-square = 0,55) and in-city variation (R-square = 0,06).

Table 6: Per Capital Public Health Expenditure (Purchasing Power Parity) PPP \$

	2002	2003	2004
Turkey	327	378	425
WHO-EURO	1,095	1,150	1,207
EU	1,575	1,650	1,727

Resource: World Health Organization, European health for all databases, Access in March 2006.

When compared to Mexico and Korea, HRH levels in Turkey demonstrates the potential to reach beyond the population based comparison methodology and other factors impacting the appropriateness of HRH levels. As demonstrated in Table 7, three countries have similar physician densities, and the difference among nurse levels is higher (12 in Turkey, while 22 in Mexico) However, life expectancy in Turkey is lower than Mexico and Korea, and infant death rate is higher. Considering the demand side, can the physician and nurse levels in Turkey be insufficient? While per capital examinations in Turkey is twice those in Mexico, they are half of those in South Korea. Does Turkey spend sufficient for HRH? In fact Turkish government has spent more than Mexico for health per capita, however, this rate is lower than South Korea. Can dramatically increasing HRH levels be an applicable option? Per capital GDP in Turkey is the lowest among these three countries and this demonstrates that the money should be efficiently spent on HRH levels. HRH levels in Table 7 and the immunization analysis demonstrate that particularly the low nurse density in Turkey could be a problem should be emphasized. Whatever result might be derived, such a comparison emphasizes the potential benefit of developing criteria used for making assessment on the adequacy of HRH levels. Consequently, there is no point of comparison or criteria under which the adequacy of HRH levels could be assessed meaningfully.

Table 7: Comparison of Selected Indicators in Turkey, Malaysia and South Korea *

	HRH / 10.000 population		Health indicators		Demand	Economic restrictions	
	Physicians	Nurses	Life expectancy	Infant Death Rate	Outpatient examination / per capita	Public health expenditures / per capita **	GDP / per capita **
Turkey	15	12	71.0	23.6	4.8	418	7,562
Mexico	15	22	75.2	19.7	2.5	307	10,242
Korea	16	18	77.4	5.3	10.6	591	20,668

Resource: World Health Organization, European health for all database, Access in March 2006. Republic of Turkey, Ministry of Health, 2007

* Data pertinent to 2004 or following years

** Purchasing power parity on dollar basis

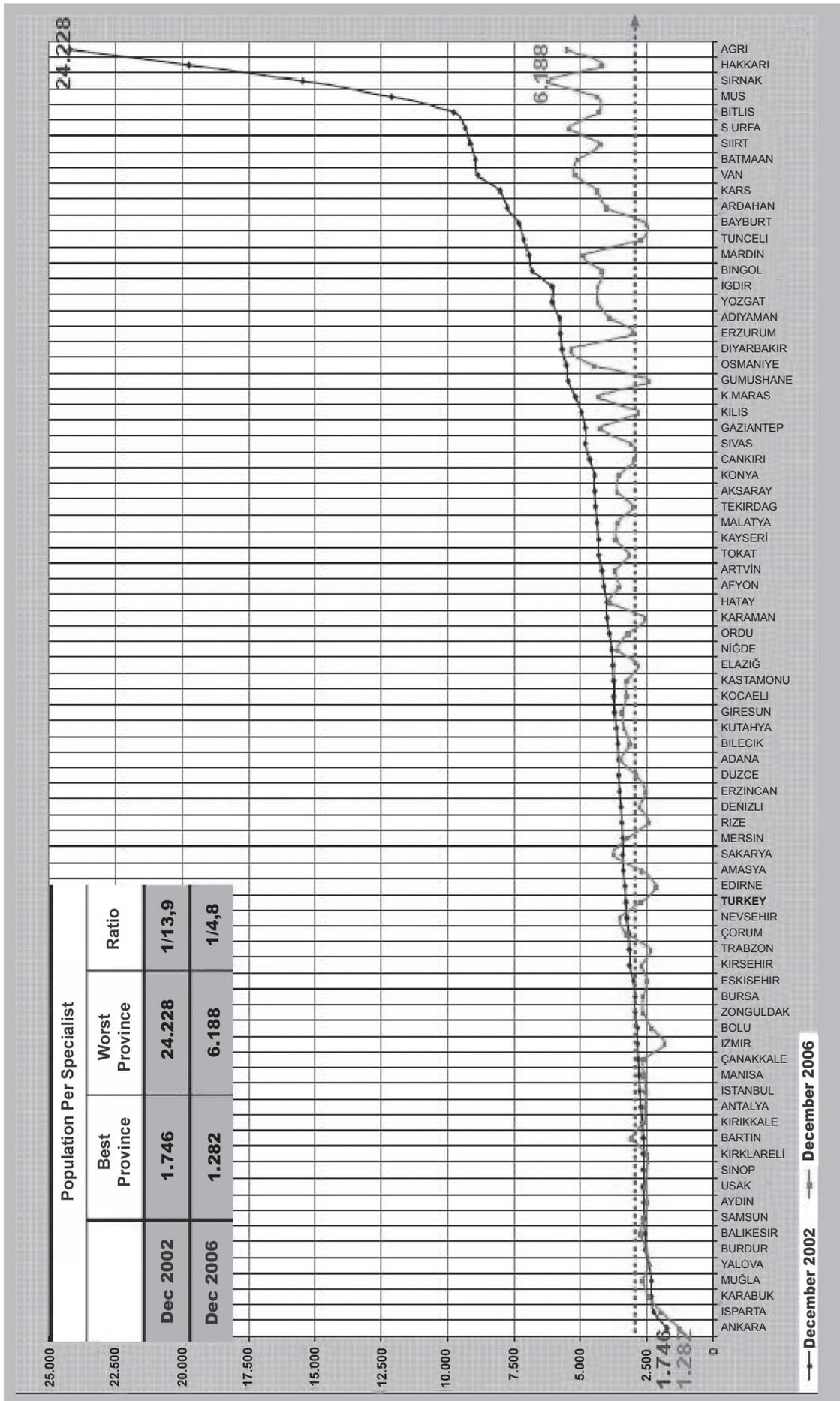
3.2 HRH Distribution

Distribution of HRH in Turkey faces with significant imbalances from two aspects. Geographically and skills. In geographical terms, there are different HRH densities between the provinces and within the province and also in urban centers. In terms of skills, rate of specialist physicians to general practitioners and the rate of nurses /midwives should be assessed carefully.

3.2.1 Geographical Distribution

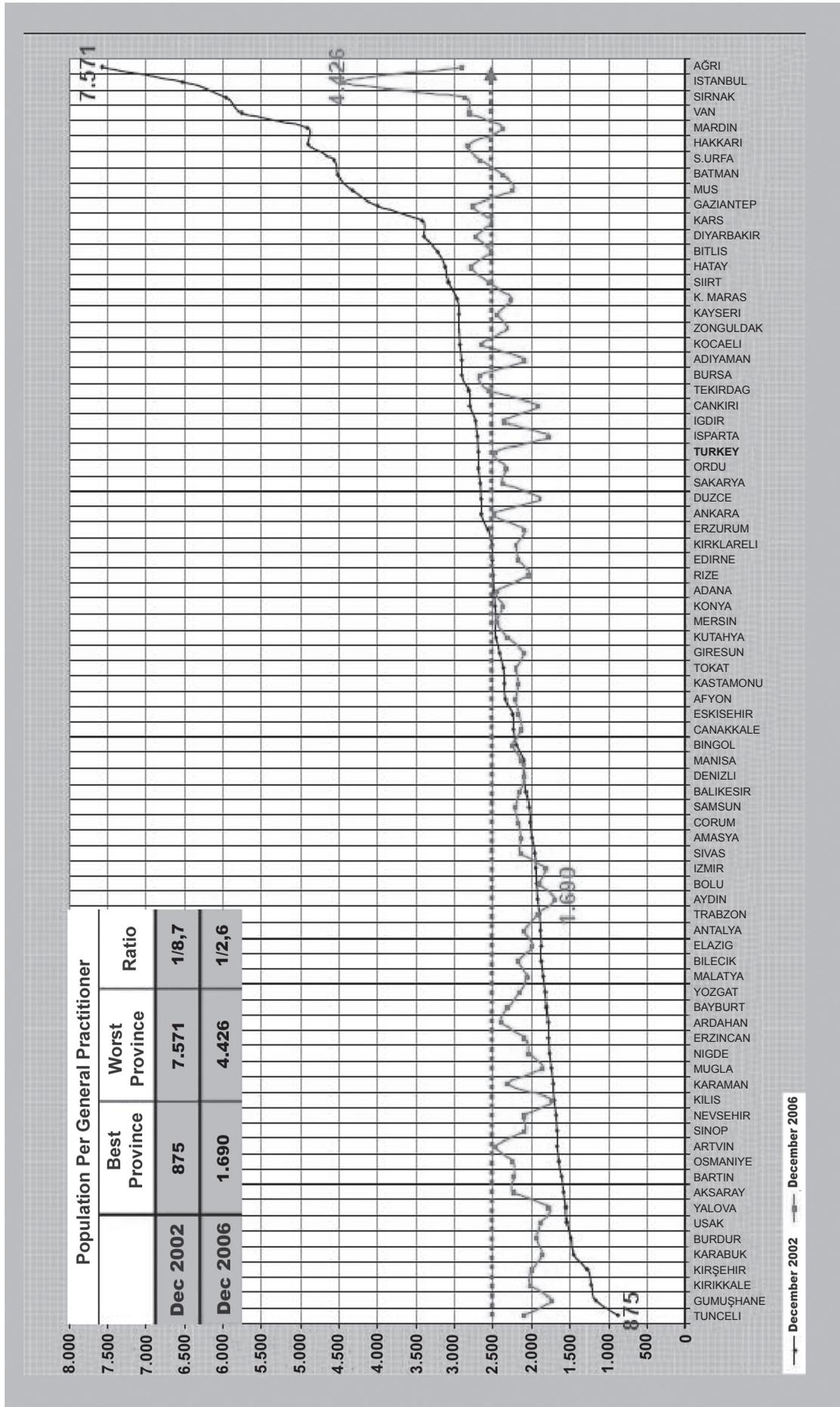
Unequal geographical distribution in Turkey has been a matter of concern for long years, and this issue has been recognized and handled by the MoH ⁽⁷⁾. Geographical imbalances have two main components – between provinces and within urban centers. At province level, it seems that certain progress has been accomplished in terms of decreasing geographical imbalances in previous years. Figures 2, 3 and 4 respectively demonstrate the geographical differences in the distribution of specialist physicians, general practitioners and nurses / midwives. While there are province level differences in the rate of each HRH category to population, these differences are lower compared to a couple of years before. Although geographical imbalances might be at the highest level in terms of specialist physicians, due to the efforts of the MoH on this issue, significant steps have been taken towards improving these imbalances in MoH institution.

Figure 2: Progress in The Geographical Distribution of Specialist Physicians (2002- 2006)



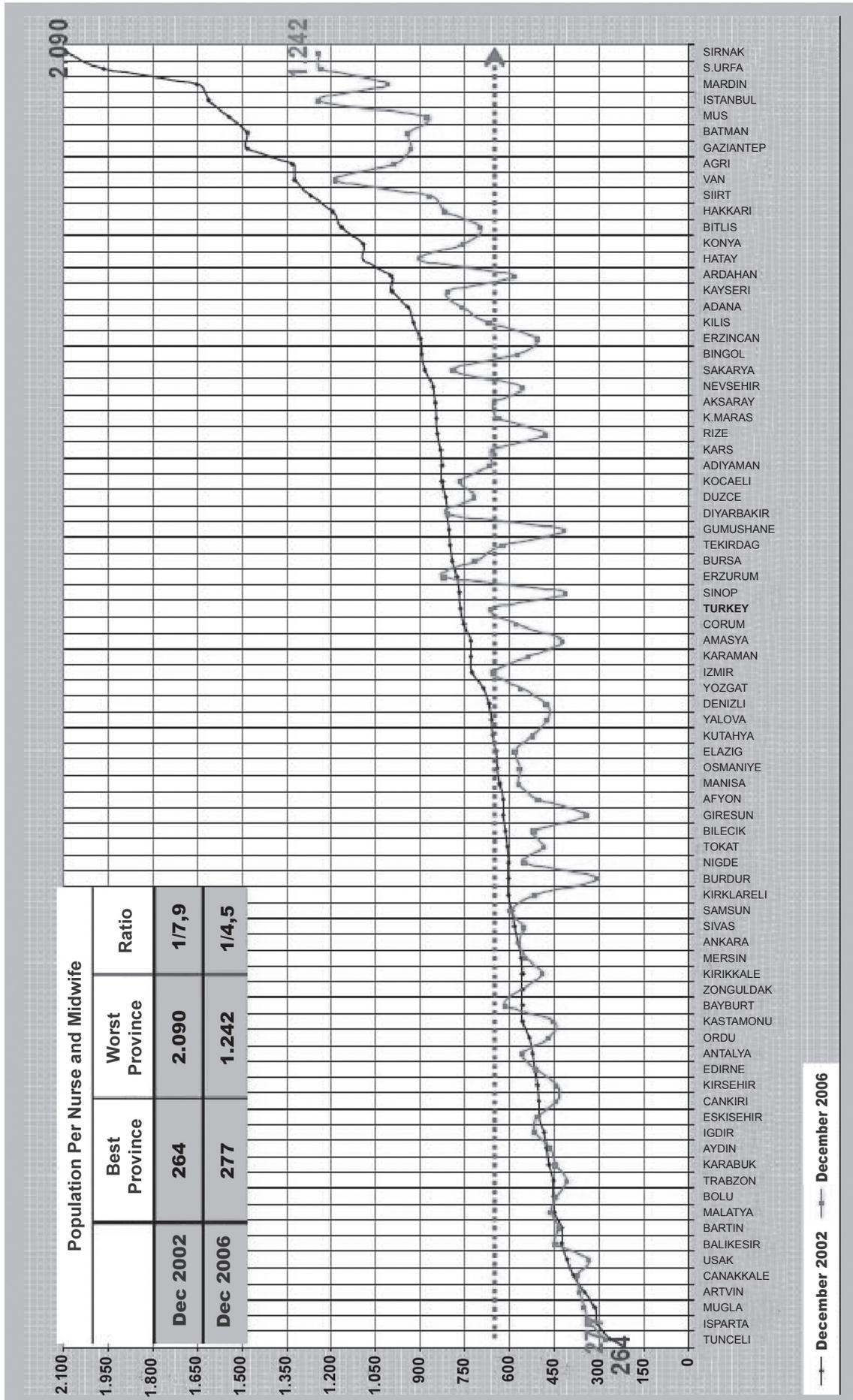
Resource: AKDAĞ, R. 2007 Financial Year budget presentation

Figure 3: Progresses In Geographical Distribution Of General Practitioners (2002 - 2006



Resource: AKDAĞ, R. 2007 Financial Year budget presentation

Figure 4: Progresses In Geographical Distribution Of Nurses And Midwives {2002 - 2006}



Resource: AKDAĞ, R. 2007 Financial Year budget presentation

Geographical imbalances seem to be related with economic development at province level. Table 8 presents the correlations between specialist physician, general physicians and nurses – midwives and per capita GDP. Three significant issues could be stressed. First of all, there is a high level of correlation between a HRH category and other category. Secondly, per capita GDP as per provinces and population per HRH are negatively correlated, which demonstrates that in provinces having higher GDP per capita, number of people per HRH professional is less. Thirdly, the negative correlation between per capita GDP and HRH is stronger among physicians when compared to nurses /midwives. In fact, simple double-variable statistical analysis of population per HRH indicates that more than 50 % of the change in specialist /general practitioner density is constituted by per capita GDP, however, per capital GDP demonstrates only 30 % of the change in nurse / midwife levels. While such correlations do not demonstrate causality, this points out to other determinants of province level HRH densities. However, this situation demonstrates that socio-economic factors continue to play a role in the geographical imbalances. In fact, correlations between socioeconomic situation and distribution on province basis have been previously reported⁽⁹⁾.

Table 8: Province HRH Distribution and Development

Correlation	Population / Specialist physician	Population / General Practitioner	Population / Nurse & midwife	Per capita GDP
Population / Specialist physician	—			
Population / General Practitioner	0.72	—		
Population / Nurse & Midwife	0.67	0.78	—	
GDP / per capita	-0.59	-0.48	-0.42	—

Resource: HRH densities: Republic of Turkey, Ministry of Health, 2007; per capital GDP Hamzaoglu and Ozcan⁴

Imbalances among urban areas in terms of HRH distribution seem to constitute a significant problem and the reason for this is most probably same socioeconomic factors. Access of poorer section in large urban areas is insufficient. For example, in a study conducted in 2002 on examination office in Istanbul, it was demonstrated that the population was not determinant on physician density and number of hospital beds, and that almost half of the examination offices (45 %) concentrated on two districts ⁽²⁸⁾.

3.2.2 Distribution of Skills

Distribution of skills expresses the adequacy of mixture of skills among different HRH types in terms of needs of a country. It seems that there are two main types of imbalances. First of these

⁴ Since there is no more update data, DDP data pertinent to 2001 has been taken.

is among the specialist and general practitioners, and the second among nurse and physician. In terms of skills distribution between physicians, almost half of the physicians actively working are specialists. Besides, although these statistics demonstrate that more than half of the physicians are general practitioners, this number also includes 17.000 assistant physicians who receive specialty training, and around 10.000 of these serve in hospitals and emergency services. For this reason, only one fourth of the physician labor force in Turkey works actively at primary health level. When the disease burden and things to do in terms of preventive health services and health in Turkey are taken into consideration, it will be hard to say that the skills are adequately distributed due to the low number of general practitioners. Infant death rate is still considerably high and a primary health care service is responsible as the main source of many other hospitals⁵. Prevention and support should be more emphasized due to the aging population and the increase of burden of chronic diseases. Among various medical specialties, less emphasis has been put on primary health care services skills. Although the recent attempts towards developing family medicine model puts the emphasis on current burden of disease, only part of the physicians currently are classified as family physicians (around 1300 physicians have been trained in 20 years). This number is higher than 3 % of the physician labor force.

Meanwhile, number of nurses per physician is relatively low. At national level, number of nurses is equal to the number of specialists and general practitioners working full time. This number for countries in WHO EURO region is around 2 nurses per physician and in Europe B+ C countries, 2.1 nurses per physician^(3,29). Low nurse to physician rate demonstrates that some clinical tasks that could be performed by the nurses are realized by physicians. Taking into account the salary differences and the need for more efficient allocation of physician resources, this low rate can be evaluated as a big restrict in front of the efficiency of human resources in Turkey. More assessment in terms of efficiency has been conducted in Section 3.3.1. In fact, although there might be a shift in the mixture of skills towards certain critical specialties, it is apparent that major roles and tasks that are adequate for their training levels are not assigned to nurses⁶. The relatively high infant death rate in Turkey keeps the need for increasing the emphasis on primary health care services in the agenda, and the low level of nurses who provide these services as priority is another issue which should be stressed.

3.3 HRH Performance

HRH's performance can be analyzed through two lines; one of them is efficiency and the other is quality. Efficiency means technical efficiency and gives the answer of the question "Has each of the Turkish Liras having been spent for HRH been spent in appropriate ways?" Quality represents both the technical quality (that is the clinical performance) and the perceived quality (that is the quality perceived by the patients). It must be stated clearly that assessment of HRH performance is particularly a difficult issue. For example, no golden standard measures exist concerning efficiency and a deep comprehension of the quality requires time and resources beyond the scope of this assessment.

⁵ Among the leading reasons for death of children between 0-14 ages include perinatal causes (37.6%), acute respiratory track infections (14%), congenital anomalies (10.3%) and diarrhoeal diseases (8.4%) . *National Burden of Disease and Cost Efficiency Project; Burden of Disease Final Report*. Ankara, Refik Saydam Department of Public Health, School of Public Health, Baskent Universitesi.

⁶ This partially is dependent upon the current nursery law which has not been changed since 1954. A law amendment which involves task descriptions is being negotiated in the Parliament.

3.3.1 Efficiency

There are some signs of gradually increasing efficiency in recent years at both the primary and the secondary stage health care service levels. The efficiency criteria analyzed here includes the number of outpatients, the period of inpatients per physicians, the accommodation period of the inpatients in the hospital and the occupancy rate⁷. As we mentioned in Part 3.1, the outpatient visits per physician in the primary level health care services (Table 4) almost doubled in 2005 compared to 2000. Even if no interpretation about quality can be made out of this indicator, the efficiency can be said to have increased. Table 9 indicates the efficiency that has increased to a degree. The inpatient days per physician have decreased in university and private hospitals, whereas they have increased in hospitals of MoH. At the same time, the average period of the inpatients in the hospital varies between 5-6 days in both the hospitals of MoH and the other ones. The inpatient load per physician in MoH hospitals climbed up from 121 in 2001 to 133 inpatients in 2005. All these data complies with the data pointing an increase of 75 % in the number of inspection in both health posts and MoH hospitals in 2006 compared to 2002 and rising of the number of the patients inspected per physician from 6.9 to 9.7 in MoH training hospitals within the same period⁽³⁰⁾. Yet, the hospital-bed occupancy rate in MoH hospitals remains low (between 58.5 % - 77.9 % from 2000 to 2006) and this shows that it is possible to do better for institutional development in efficiency.

Table 9: HRH Efficiency At Hospital Level

	2001	2002	2003	2004	2005
Inpatient days/Physician					
All Hospitals	595	585	578	592	575
MoH Hospitals	667	665	635	694	712
Other Hospitals	547	564	525	505	400
Average Period of Hospital Stay (day)					
All Hospitals	5.9	5.9	5.8	5.7	5.4
MoH Hospitals	5.5	5.8	5.7	5.4	5.3
Other Hospitals	6.3	6.0	5.8	6.0	5.6
Patient / Physician / year					
All Hospitals	105	105	100	104	107
MoH Hospitals	121	113	112	129	133
Other Hospitals	86	95	90	84	71

Resource: MoH, annuals of the inpatient treatment institutions (2001-2005)

⁷ Restrictions related to these indicators are discussed in the part concerning Quality.

Analysis of the variation among the immunization rates in health services sheds light on the factors affecting efficiency. Table 10 indicates the results of the linear regression in the provincial vaccination rates on HRH levels and financial incentives. The analysis made here includes the financial incentives HRH received in respect of revolving fund amount (per mill) as well as it resembles table 5 (Part 3.1). The results show these: First of all, the relation between HRH intensities and vaccination rates complies with Table 5: In vaccination rates each additional nurse/ midwife per 1000 population is associated with an increase of 2, 4 % and each additional physician per 1000 population is associated with an increase of 1 %. Secondly, gains from revolving fund may be a motivation source and may increase efficiency. Each 1 % increase in revolving fund per HRH is associated with an increase of 4, 5% in immunization rates⁸.

Table 10: Vaccination Rates According to the Provinces and HRH Levels/Financial Incentives (2005)

	Vaccination rate
Population per physician (mill)	-1.03
	(4.39)**
Population per nurse/midwife (mill)	-4.11
	(3.00)**
Population per other staff (mill)	1.24
	(1.03)
Log (Revolving fund per HRH)	4.45
	(2.31)*
Log (GSYİH per individual)	3.21
	(2.02)*
Constant	18.31
	(0.86)
Observations	81
R-squared	0.63

Resource: 2005 Statistics Annual of MoH Primary Health Care Services General Directorate Hamzaoğlu and Özcan 2006.

* Significant at 5 % level ** significant at 1 % level

3.3.2 Quality

Whereas an analysis on efficiency illuminates one component of the performance, it is difficult to reach a solution without mentioning the providing service qualities. Without knowing how an increasing patient load affects the service given to the patient or health results, it cannot be recognized that the increasing efficiency represents whether a good or bad tendency. Indeed, the quality of the services offered by HRH in Turkey is among the agenda of MoH and HEC. Firstly, it is commonly accepted that the perceived quality of the health care unities at especially

⁸ Nature of this analysis is relational and does not allow any interpretations based on causality. Results depend on linear regression Generalized Lower Squares (GLS) regression based on a random impacts resistant linear regression.

primary health care level is lower than the perceived quality of the private health care facilities. This situation can be proved, to a certain degree, with the utilization rates of the public primary health care service facilities which were lower in the past. That only one out of three outpatient visits was carried out at primary level heath care in the past means the citizens skipped this stage of the system completely and used the secondary health care facilities and/or received service from private sector ⁽⁹⁾. From the aspect of technical quality, previous researches about nosocomial infections rates showed that the quality of the service that the service providers offered caused anxiety at the second and third stages. As it is pointed out in Table 11, rates of the infection caused by the equipment in the intensive care unities of the hospitals in Turkey are infect higher than the rates in the USA and are above the average for two out of three indicators, among the countries which have more comparable levels in terms of development.

Table 11: Rates of Infection Caused by Equipment Per 1000 Equipment Days

	U.S. NNIS*	INICC**	
		In the world***	Turkey
Pneumonia caused by the ventilator	5.4	24.1	26.5
Blood circulation infection caused by catheter	4.0	12.5	17.6
Uriner System Enfections caused by catheter	3.9	8.9	8.3

Resource: Rosenthal, Maki, 2006; Leblebicioglu, Rosenthal, 2007

* National Nosocomial İnfection Surveillance System, the USA.

** International Nosocomial Infection Control Hospital Unions

*** 46 hospitals in Argentina, Brazil, Colombia, India, Mexico, Morocco, Peru and Turkey.

Deficiency of other data prevents HRH quality from being analyzed with this report. Yet, MoH creates a study basis where the analysis will be carried out in the future. Performance based payment system (see Part 5.3.1) accumulates data that will help analyze exact HRH efficiency and quality in details. In addition to the indicators stated above, the data such as the number of vaccination per doctor or nurse, time spent per physician inspection and the rate of nosocomial infection in the hospitals in Turkey need to be compiled. Thus, deeper assessments pertinent to quality exist in the future agenda.

4. ASSESSMENT OF THE CAPACITIES AND POLICIES HAVING INFLUENCES ON THE SITUATION OF HUMAN RESOURCES IN HEALTH CARE

Capacities and policies about financing, education and management of the human resources in health care play an important role in determining the situation of the human resources in health care defined previously. The following part is explaining these three major factors.

4.1 Financing

When the health care service is considered as an intensive sector in respect of labour force, one of the important factors affecting HRH outputs is finance's being findable. HRH financing covers much expenditure related and not related to salaries. While the expenditures pertinent to salaries include basic salaries, retirement contributions and premiums, the expenditures not related to the salaries include other rights such as in-service and continuous training, lodging costs, personnel management, and the costs related to regulatory activities and purchasing the health technologies. HRH financing in Turkey has two origins; these are MoH, social security establishments and the private sector. From the aspect of expenses related to the salaries, the health care labour force financing in public sector is composed of basic salaries, social security contributions and performance based incentives through revolving fund. The health care labour force salaries in public sector, including the covenanted employees in public sector, are financed with the allotments made from the budget of MoH. The basic salary rates, as it is the same for all public employees in Turkey, are determined at the level of laws and measures concerning the civil servants. In addition to this, Personnel Distribution Table (PDT) takes the educational level, experience years, geographical and socioeconomic status into account and provides incentives for the health care employees working in deprivation areas. The revolving fund is the second major financing source for meeting the HRH salary additions. The revolving fund is financed by the incomes achieved at health care facilities level. The sources at facility level include the social security establishments (SSK-Social Security Institution, Bağ-Kur -Social Security Organization for Artisans and the Self-employed, Retirement Fund and Green Card, which have been gathered under SSI, which is a new establishment.) and payments from pockets. Finally, HRH payments and fringe benefits of the private sector are financed by the patients with the payments directly from the pockets, social security organizations or private health insurances.

Following part assesses the HRH financing at two levels; one of them is appropriateness of the financing for HRH and the other is the decision making processes. Appropriateness of the financing for HRH is analyzed from the aspect of both general finance availability (size of the resource segments appropriate for HRH financing) and the efficiency of the findable finance being spent. Allocation of resources process is analyzed through the definition of the related stakeholders and their interactions resulted in their financial decisions. The rest of this part focuses on the analysis of the wage part of HRH financing with two reasons. Firstly, data restriction blocks the analysis of HRH expenses that are not related to the wages. Secondly, HRH expenses not related to the salaries are generally one part of the salary part of HRH expenses; therefore, restricting the analysis with salaries provides useful assessments concerning HRH financing.

4.1.1 Availability Of The Financing

Availability of HRH financing in Turkey is based both national economic resources HRH can

utilize and actual allotments made for the health care sector. Availability of the national economic resources that HRH will utilize will be restricted in short-middle term by the governmental policies designed for decreasing the current account deficits. Turkish government has made a commitment ⁽²⁷⁾ on some issues under the agreements negotiated with International Monetary Fund (IMF), such as reaching a budget surplus of 5 % (6,5 % at central level), imposing restrictions on social security contributions, doing ceiling practice for new employment in 2007 and restricting the civil servant labour force with 23.000 individuals.⁹ These policies indicate that general public sector financing may be reduced in the following few years that will have impact on HRH financing.

The public sector resources allotted to the health care sector have recently displayed an increase and there are some indictors that this tendency is very likely to go on. As it is observed in Table 12, allotments made from the Central government budget to MoH almost doubled in a few previous years and rose from 2, 4 % in 2002 to 4,39 % in 2006. 2007 budget maintains this tendency with a net increase of 18% compared to 2006.¹⁰ Although a three-year-middle term budget plan is still being negotiated, Ministry of Finance declares that the health and education keep on being the sectors having the high priority and envisages that at least 10.000 new covenanted personnel is possible from the financial aspect ⁽²⁷⁾. Negotiations between MoH and MoF resulted in planning of new 35,000 MoH personnel employment.

Table 12: MoH Share Among the General Budget Expenses

	2002	2003	2004	2005	2006
MoH share	% 2,4	% 2,43	% 3,2	% 3,55	% 4,39

Resource: T.R. Ministry of Health, 2006.

4.1.2 Effectiveness in Financing

Effectiveness expresses that at what level the favourable financing involving HRH was used and includes effectiveness for both allotment and management. In general meaning, effectiveness related to allotment gives the answer to the question “Am I doing the right job?”, while effectiveness in management answers the question of “Am I doing the job well?”. For HRH in Turkey, these questions can be asked in different forms such as “Are HRH’s salary level allotments sufficient to achieve the health care targets of the country?”, “Do the salary levels produce services at an acceptable level considering the financing available?” respectively. Allotment insufficiencies may originate from scarce or excessive expenditures. For example, if all the public sector resources are allotted to medical technology investment, while they are not left to the payments of the employees to use the medical equipment, financing can be thought to be poor. Just to the contrary, if excessive resources are allotted to the total of the payments, the financing can be considered to be high. Beside the allotment effectiveness, if low payments reach the outcome quality, HRH financing can be low in management. Both types of effectiveness analysis show the most complete form of the subject; yet, restrictions in data limit the analysis to examining the allotment effectiveness in financing.

⁹ A Ceiling for the rate of filling the vacancy in public sector does not include the covenanted personnel

¹⁰ A nominal decrease of 12 % occurred in 2007 Budget of Ministry of Health dependent on the transfer of the Green Card budget to the budget of Social Security Organization that has been established recently

Expenses for HRH payments do not indicate explicit allotment insufficiencies in HRH financing. As it is the same in most of the countries, HRH costs and salaries compose the majority of the MoH budget. MoH spends from the General Budget (GB) and Revolving fund (RF) as human resources expense. While the human sources expenses of MoH are being examined, the expenditures made from these two origins should be assessed together. Human resources expenses within MoH expenses from GB and RF in 2005 and 2006 are seen in Table 13.

Table 13: Human Resources Expenses Within MoH Expenses, 2005-2006 (1000 YTL)

Years	2005	2006
MoH General Budget Expenses (except for Green Card)	4.960.154	5.624.693
MoH Revolving fund Expenses**	6.725.233	9.784.378
MoH General Budget Health Care Labour Force Expenses*	4.398.013	4.854.398
MoH Revolving fund Health Care Labour Force Expenses **	2.305.065	3.054.146
MoH Total Expense of Health Care Labour Force(GB+RF)	6.703.078	7.908.544
MoH Total Expense (General Budget+ Revolving Fund)	11.685.387	15.409.071
Health Care Labour Force Expense in MoH General Budget Expenses (%)	88,7	86,3
Health Care Labour Force Expense in MoH Revolving fund Expenses%	34,3	31,2
Health Care Labour Force Expense in Total MoH Expenses (%)	57,4	51,3

Resource: Obtained from MoH expenses occurred in 2005-2006 fiscal year and MoH Uniform Accounting System Data. * Includes personnel payments, social security premiums and funeral expenses.

** Revolving funds of hospitals are not included.

MoH budget within public expenditures increase regularly and the share distributed for health care personnel from MoH budget cannot be said to be low or ineffective.¹¹ Indeed, personnel expenses vary between 65-80% in most of the country and this situation does not mean that the personnel expense is quite high. However, many studies on personnel motivation reveal that low payment is one of the leading reasons of low motivation (40, 54, 55, 56, 57).

When the average HRH revenues are compared with the jobs and country average, including the gains from the revolving fund, HRH financing cannot be said not to be effective in terms of allotment. Table 14 shows the comparison between the average revenue of the public sector employees and the other compared jobs and the average of the country (GDP-Gross Domestic product per capita). As taking only the basic salaries into consideration, we realise that expert's salary is 40-50% lower, and nurse's is 90% lower according to the indicator jobs. On the other

¹¹ For example very low salaries may reduce the motivation of SAIK employees and may feel discouraged as entering health care labour force in the future. Since all these factors negatively affect the health system and health system targets, the system may be inefficient in terms of allocation.

hand, adding the incomes from the revolving fund is reversing the picture: when compared to the jobs at their own levels, it is expected that medical specialists need to get two fold, practitioners (primary health care) 1,7 and (treatment services) 2,5 fold and nurses two fold more. HRH salaries exceed the average and the 10 average income of medical specialists reaches ten times of GDP per capita.

Table 14: Ratio of HRH Salaries to the Other Jobs and GDP Per Individual

	Only basic salary					Basic salary + income expected from the revolving fund					
	Judge (1/4)	Prof. (1/4)	Judge (8/1)	Teacher (9/1)	Per capita GDP	Judge (1/4)	Prof. (1/4)	Judge (8/1)	Teacher (9/1)	Per capita GDP	
Specialists (1/4)	0.4	0.5			2.2	2.0	2.3				9.8
P (8/3)			0.8		1.7			1.7 – 2.6			3.4 – 3.6
Nurses (12/3)				0.9	1.1				1.4 – 1.8		1.8 – 2.2

Resource: MoH Primary Health Care Services General Directorate, 2007.

4.1.3 Policy- Making in Financing

MoF, Social Security Organization (SSO) and MoH are the primary stakeholders included in policy- making process in HRH performance¹². MoF negotiates with MoH and Social Security Organization respectively on financial matters. Human resources issue is the primary subject to which policy makers give the priority in MoH at present and at the same time some arrangements are being made about the performance based payment component of HRH financing. The State Planning Organization (SPO) makes predictions about HRH requirements in terms of numbers per capita, however there exists no indicator showing the mentioned predictions are available in the seven-year development plan. SPO predictions covering the middle and long term investment decisions is based on not the conditions of personnel needs based on the needs of Turkey but the existing labour force arranged according to the expected entrance and exit.

There are a few units in MoH involved in the financing process; however, responsibility distribution has not yet reached its final form. Strategy development Department is charged with budget planning, and carries out negotiations with Personnel General Directorate (in terms of management issues) and Budget Office. In addition to this, in MoH Strategy Development Department, Performance Management and Quality Measurement Development Department have been established and this unit is busy with developing the performance based payment and observing the implementations of them.

4.2 Education:

Educational capacities can influence HRH level, distribution and performance in a few ways. In the following, there is a summary of the findings pertinent to Turkey’s educational capacities of

¹² The duties of Ministry of Education and Higher Education Association are studied in Part 6.2.1 in respect of the financing of undergraduate SAIK education.

health care labour force in terms of both pre- service and in-service training.

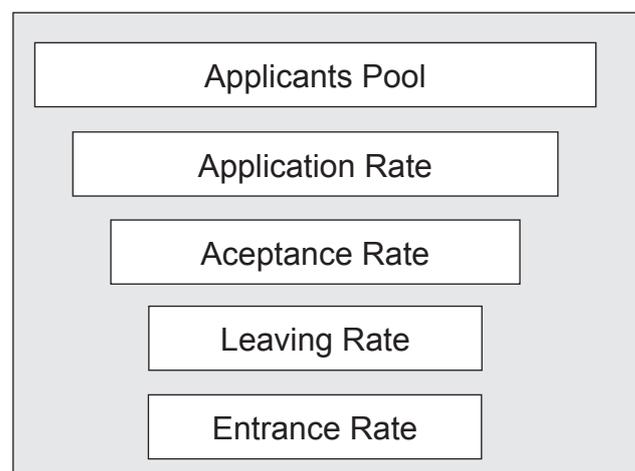
4.2.1 Undergraduate Education

The capacity of educating the health care employees in the future seems sufficient with a few points to be reviewed. The following part summarizes the national and regional educational capacities and undergraduate educational policies.

4.2.1.1 National Capacity

In order to analyze the capacity of pre-service training system of Turkey at national level, demand (number of health care employees in the future) and supply (educational personnel) aspect of the system is taken into consideration. Figure 5 provides a framework in order to analyze the demand aspect. According to this “education scheme”, obtaining a sufficient number of HRH depends on person entrance and exits. The initial pool of the applicants determines a ceiling pertinent to the amounts of the health care employees in the future, the rate of labour force entrance ascertains the actual amount added each year. Among these, the factors such as nominee applicant rate, acceptance rate, students leaving affect the final entrance rate.

Figure 5: Education Scheme



In Turkey, there is no scarce of candidates to be educated as a health care employee. There have been no statistics published concerning the number of the applications to vocational health education per education position; nevertheless, two indicators certify that there is no considerable capacity limitation on the health education choice of the candidates and their education. Table 15 displays the average ÖSS -Student Selection Examination scores for health specialty and the average scores for the other faculties of the same universities. On average, the scores for those in medicine, nursery, pharmacy, dentistry and health colleges are higher than the other universities' averages. Very high scores for the Medical faculty can only be obtained by the candidates who are only in the 82nd percentage or above. Although some categories (midwifery and health management) are lower than the other faculty averages, the potential students cannot be said to disregard the HRH occupations. Secondly, the rate of the students leaving the school is predicted to be low (lower than 2%) and this shows that attrition during education does not represent a significant problem. Finally, in some HRH occupations, demand for business after graduation is observed to be high. For example, the surplus number of graduated nurses in public sector means that there will not appear so many problems in finding graduates to fill (that there are enough reasons to do this as

considering the positive relation between efficiency and effectiveness) the extended vacancies. Shortly, Turkey’s undergraduate education capacity does not seem to limit health labour force size from the aspect of the applicants and those completed their education successfully.

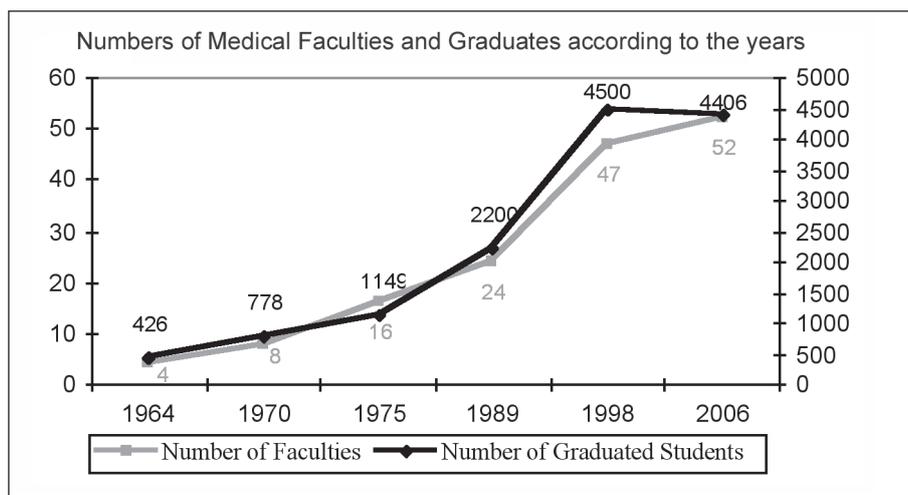
Table 15: University Entrance Examination Scores

	Average score
Medical faculty students	345,342 (Quantitative Score)
Nursery students	302,372 (Quantitative Score)
Midwifery students	291,419 (Quantitative Score)
Pharmacy students	335,241 (Quantitative Score)
Dentistry students	335,273 (Quantitative Score)
Health college students	311,897 (V-Q Equally Weighted Score)
Health management students	284,374 (Verbal Score)
Other students	300,010 (Verbal Score)

Resource: HEC, 2007

The production capacity of Turkey in terms of supply seems to be sufficient; however, the other factors have recently caused respectively a dull production level in some of HRH categories. As it is indicated in Figure 6, there has been a constant increase in the number of medical faculties since 1964, and a proportional increase has occurred in medical graduates up to the end of 1990’s. Since the end of 1990’s, a beneficial decrease has occurred in the rate of the number of students to the number of faculties. This situation causes to think that there is a sufficient capacity to educate the medical faculty students accepted every year and even shows that this capacity is not used. Yet, the fixed level in the number of acceptances to the medical faculties originates from the policies of HEC and does not reflect the production that MoH wished.

Figure 6: Tendencies in Medical Faculties and Their Graduates



Resource: HEC 2007

As it is seen in Table 16, the number of individuals assigned for medical specialty training

is quite close to the number of the students graduated from medical faculties. This shows that most of the doctors having medical training, after becoming specialized, are encouraged to work in the second level health care services. Incentives for practitioners and family medicine to work at the first level must be increased, changing the supply in this subject matter.

Table 16: Assignments Made For Medical Specialization Training and Number of Medical Faculties

YEARS	Those Graduated from the Medical Faculty One Year Before	Those Assigned for Medical Specialty Training
2000-2001	5.133	3.526
2001-2002	5.210	3.689
2002-2003	4.960	4.035
2003-2004	4.804	4.117
2004-2005	4.363	4.807
2005-2006	4.537	4.375

Resource: Higher Education Statistics (2000 – 2006) OSYM Publications

Qualitative and quantitative evidences in terms of education quality demonstrate a complicated table. On one hand, there are indicators that more attention is paid gradually to the quality of HRH basic training. The decrease in the rate of medical faculty students to the instructors may demonstrate an increase of quality in the near past. In fact, HEC suggests the quality of education as the basic cause of the fact that the number of students did not increase together with the increase in the number of faculties.

On the other hand, concerns pertinent to the quality of the training have for long been expressed ⁽³⁵⁾. First of all, the quality of both basic and specialized medical faculty education may demonstrate high difference from one university to the other if there is no standardized curriculum or educational standards. Meanwhile, the capacity of the MoH to review the curriculum standards will be affected from this. Secondly, the low number of students per instructor at medical faculties does not match with the levels in other HRH categories (particularly the health occupational schools). Table 17 demonstrates the rate of students to the instructors according to the type of schools providing health training. This rate is the lowest for medical faculties (around 3,5), and is similar to many countries in Europe ⁽³⁶⁾. Rates for dentistry and pharmacy faculties are around 8 and 14 respectively. Rates pertinent to nursery, health colleges and health occupational schools are considerably high , being 26, 45 and 69 respectively. The fact that the rate of students to instructors in these three school is high may negatively impact the quality. For example, the number of students per instructors in Turkey for nursery schools, which is 26, is considerably high from the rate permitted in the United States of America, where rates over 8 – 10 :1 are not permitted for clinical interns ⁽³⁷⁾.

Table 17: Number of Students /Instructors in Schools Providing Health Education *

Region	Medicine	Nursery **	Health College	Pharmacy	Dentistry	Health Services Occupational School
Mediterranean	3.0		31.9	15.6	15.7	43.4
Central Anatolia	3.7	32.6	33.5	9.7	7.4	67.7
East Anatolia	3.8	17.6	71.1	21.4	6.2	53.0
Aegean	3.2	26.3	29.7	12.2	8.6	37.9
Black Sea	4.2		32.2		7.1	44.1
Marmara	3.4	17.7	30.3	14.6	8.6	43.7
South East Anatolia	3.4		46.1		5.9	30.7
Total	3.5	26.0	44.9	14.0	8.1	68.9

Resource: Student Selection and Placement Center (OSYM), 2007

* Includes Professor, Associated Professor, Assistant Processor and Instructors. Regions with no school are left blank.

** Covers the colleges providing only nursery training

4.2.1.2 Regional Capacity

Analysis of regional and province level capacities demonstrates that there are some geographical differences. First of all, the rate of students to faculties within regions demonstrates quite high level of difference. Table 18 demonstrates the regional level differences in the rate of students to instructors. In terms of medical faculties, rate of students to faculty staff in Mediterranean region can be considered fair. The province which has the highest number of students per faculty staff in the Mediterranean region, has a rate which is 1,4 folds the one which has the lowest number. On the other hand, differences on this issue are much more pronounced in Central Anatolia and Black Sea regions. The schools where the imbalance between the provinces is the lowest in terms of the rate of students to medical faculty staff are the nursery schools. This situation is partially due to the low level of total number of schools. In addition to this, health services occupational schools demonstrate the highest differences. Secondly, both the nursery¹³ and pharmacy faculties do not exist at all in more than one region, and other faculty departments are represented by at least one at each region. This means a lower in-country geographical training capacity for nursery and pharmacy compared to other HRH categories.

¹³ Health colleges in the Mediterranean, Black Sea and East Anatolia Region accept nursery students. YÖK (2007), 2005-2006 Academic Year University Education Statistics Ankara, YÖK.

Table 18: Comparison Between the Provinces in the Region in Terms of Student – Instructor*

Region	Medicine	Nursery **	Health College	Pharmacy	Dentistry	Health Services Occupational School
Mediterranean	1.4		3.6	1.0	2.8	11.2
Central Anatolia	3.6	1.2	4.3	1.7	3.2	6.6
East Anatolia	1.8	1.0	2.4	1.1	1.0	3.0
Aegean	2.8	1.0	2.1	1.0	1.0	37.0
Black Sea	4.4		16.2		1.0	4.2
Marmara	2.0	1.0	3.0	1.0	1.0	4.1
South East Anatolia	1.6		7.9		1.0	1.8

Resource: HEC, 2007

* The difference of each region having lowest and highest student /instructor level among itself is demonstrated in rate.

** Covers the colleges providing only nursery training

There are indicators that the geographical variations in the capacity are related to socio-economic differences. In general, the level of development may be associated with the intensity of HRH faculties. As can be seen from Table 19, maximum 1/3 of each type of HRH faculty is located in regions of Turkey having priority of development¹⁴. This situation may mean that there is a quite low educational capacity at the less developed parts of the country.

Table 19: Distribution of Faculties According to the Situation Of Province Having Priority of Development

Region	Medicine	Nursery **	Health College	Pharmacy	Dentistry	Health Services Occupational School
Normal	67%	82%	67%	83%	75%	66%
Priority of development	33%	18%	33%	17%	25%	34%

Resource: HEC, 2007

* Covers the colleges providing only nursery training

¹⁴ This rate is compliant with the density of population for medical faculties, health colleges and health services occupational colleges, because almost one third of Turkey's population live in regions having priority for development. On the other hand, the intensity of nursery, pharmacy and dentistry faculties is severely lower than the population density in the same regions. Meanwhile, it should be remembered that the nursery training is also given in other colleges, the numbers here are only related to schools providing nursery training

4.2.1.3 Policy Making in Undergraduate Education

Stakeholders pertinent to policy making in relation to undergraduate education are HEC, Ministry of Education (MoE), SPO, MoF and the universities. Higher education of health professionals and other HRH categories (for example psychologist, dietician) is regulated by HEC. Responsibilities of HEC include the content of training, qualitative planning (that is the number of students to enroll) and infrastructure planning. High-school level education of health professional has been transferred to the Ministry of Education in 2004.

For capital investments (such as the establishment of new universities, faculties, classes), HEC prepares budgets based on the demands coming from the universities. These budgets go into a process involving SPO. For decisions pertinent to current costs (for example the number of new students to be enrolled), universities and HEC get into direct contact with MoF (Ministry of Finance). The Ministry of Health is apparently not active in most, if not all, of the policy making processes. In fact, there is an atmosphere of displeasure among the units of the Ministry of Health on the fact that they do not have any right to say in the undergraduate service. Some of the authorities in the Ministry of Health are of the opinion that the decisions made by HEC are not suitable in terms of the needs of health sector and that there is lack of communication. In this regard, the desire for the establishment of a steering coordination body superior to the Ministry of Health and HEC has been expressed. Even some authorities of SPO have demonstrated their requests in terms of increasing the student enrollment in the scope of the development plan; however its impact has been limited due to the apparently protected autonomous structure of HEC.

4.2.2 In-Service Training

MoH has a limited but developing capacity in terms of in-service training¹⁵. Even if there is no obligation pertinent to continuous medical training, in-service training is being provided to the staff by the Ministry of Health. In addition to that, Turkish Union of Physicians provides some courses for general practitioners and other health professionals on occupational health and other selected issues⁽³⁵⁾. Course contents cover such issues as mother and health care, vaccination, neonatal, control of contiguous and noncontiguous diseases, environmental health, food health, hospital administration, management training, prudent drug use, pharmacoeconomy, health economy, epidemiology, biostatistics, tuberculosis control, malaria control, struggle with cancer, adolescence and school health. These training programs are provided on a continuous basis depending on need and the availability of funds.

Ministry of Health has launched a comprehensive in- Health Transformation Program in the process of transition to family medicine model. In this regard, it is planned to provide in-service training to 22.000 - 24.000 general practitioners who are currently employed. Details on family medicine model have been explained in Section 5.1. The first stage of the training program, which has been planned in three stages, is characterized as a one-weekly adaptation training, at the end of which a temporary certificate is issued. The second stage after said certificate training is remote and class training (70 % and 30 % of the course period respectively) and a one yearly obligatory training program. The family physician specialist training, which is the third stage, will be realized as part time training, and last for five to six years. The official specialty training at the third stage shall involve five medical specialty branches (pediatrics, maternity, internal diseases, general surgery and psychiatry) and cover hospital rotations and field studies.

¹⁵ In service management training has been explained in Section 4.3.4 in detail.

Currently 5,000 health staff (2,500 practitioners and 2,500 nurses) has received one-week initial training in 11 pilot provinces of the family medicine model. There is a delay in the implementation of the second stage, however it is expected that the Ministry of Health will put this into practice in the coming months. MoH has also encountered certain legal obstacles in terms of providing third stage training, and it is uncertain how this will impact the planned training.

There are many uncertainties about realizing this voluntary in-service training agenda. On the demand side, the number of general practitioners working in the public sector is lower compared to the 22,000 – 24,000 family physicians, which is the target. MoH Primary Health Care Services General Directorate indicates that around 16,000 general practitioners work at primary health care services level and could be included in the in-service training process. Even if all of said general practitioners desire to receive family physician training, there will still be a need between 6,000 to 8,000¹⁶.

On the supply side, human resources capacities (that is the specialty on family medicine course content) could not be assessed since the second stage courses have not yet been started to be implemented. However, if it is assumed that the Ministry of Health may receive support from university and training hospitals, it can be estimated that relevant information and skills may be supplied for teaching the course content. Financial capacities on the supply side are provided at the short term, however, they are not known prospectively. The current ongoing training is being financed under the scope of HTP. This financing shall be provided until 2008, after which date the costs shall be covered from the budget of the MoH or the second phase of the credit received from the World Bank. On one hand, the provisional nature of the training and the fact that the second stage training mostly depends on remote training may assist in decreasing the capital investment costs. On the other hand, the nature of program design prevents the use of scale economy as the program is enlarged. For example, traveling, accommodation and per diem costs pertinent to the class /hospital based parts of the training seem to increase in each province.

4.3 Management

Similar to the fact that the performance of health sector mostly depends on the performance of health professionals, the system performance requires that the human resources are efficiently managed. Figure 7 demonstrates the methodology used for assessing the management capacities related to HRH. According to this frame, many issues at macro, mezzo and micro levels of the health system may impact HRH outputs. These include at macro level the decentralization degree of the functions of human resources, undertaking about human resources development and cooperation with private sector. The middle level includes the basic administrative functions of human resources management (for example the development of work definitions, management of employment conditions), and factors impacting the corporate environment (e.g working conditions). . . The micro level involves such corporate applications as team work and open expectations on HRH. The following section synthesizes the findings pertinent to HRH assessments related to management.

¹⁶ Meanwhile, it should be remembered that physicians not working at primary level health services can also benefit from these trainings.

Figure 7: Conceptual Framework – HRH Management

Public sector content <ul style="list-style-type: none"> Decentralization of HRH functions 	Macro
HRH leadership <ul style="list-style-type: none"> Senior level management of public sector HRH Cooperation with the Private Sector 	
Administration of human resources management <ul style="list-style-type: none"> Business descriptions, performance review, business classing system HRH deployment (employment, promotion, transfer, discipline, complaints, termination) Health management information system 	Mezzo
Corporate environment <ul style="list-style-type: none"> Working conditions In-house communication 	Micro
Facility organizational applications <ul style="list-style-type: none"> Team work, vision, high standards, open expectations 	

4.3.1 Human Resources Leadership in Public Sector

HRH leadership of the MoH has not yet fully established due to the fact that there is no concrete mission on the issue of human resources. MoH has preferred to change its role of being the primary service provided, to becoming the manager and regulator of health system. This approach is in compliance with the opinion of the government to develop new management techniques in public sector and restructuring of the public sector ^(39, 40), however, some obstacles have emerged in converting these targets to HRH leadership.

It seems that the strategic management of human resources is limited with two factors. First of these is the insufficiency of understanding on how the human resources development match with more comprehensive targets of health sector development and planning. For example, staff forms (and the targets requested for HRH levels required in connection therewith) are fully based upon the technical criteria, that means the number of hospital beds per capita, size / structure of provincial level population and other local specifications (for example seasonal fluctuations and population increase depending on migration and tourism). Though such an approach focuses on significant determinants of demand for services /service need, it does not take into account other factors playing role in efficient planning of human resources development. Besides, the ceiling numbers pertinent to recruitment of new staff for covering the need do not take into account the difficulties in terms of increasing the attractiveness of providing service in disadvantageous regions, and the potential differences in training capacities of HRH staff, as indicated in the previous sections.

Secondly, there is no unit within the Ministry of Health having an open authority on human resources policies and strategies. Strategic Development Department, Staff general Directorate and Health Training General Directorates all have potential tasks in relation to the management of HRH issues. Although their relevant responsibilities are yet to give result, the adjusted structure of Health Training General Directorate gives the impression that it may undertake the leader role in terms of the inspection and /or coordination of HRH issues. In 2006, Health Education General Directorate has been restructured following the transfer of the inspection of nursery and other occupational schools to the Ministry of Education. Human Resources Planning Department

has undertaken various functions that could be important in terms of efficient human resources planning, which include determination of staff employment needs according to HRH categories, and inspection of coordination of national /international stakeholders. However, the General Directorate is at the initial stage in terms of undertaking new responsibilities, and relevant capacity is being created.

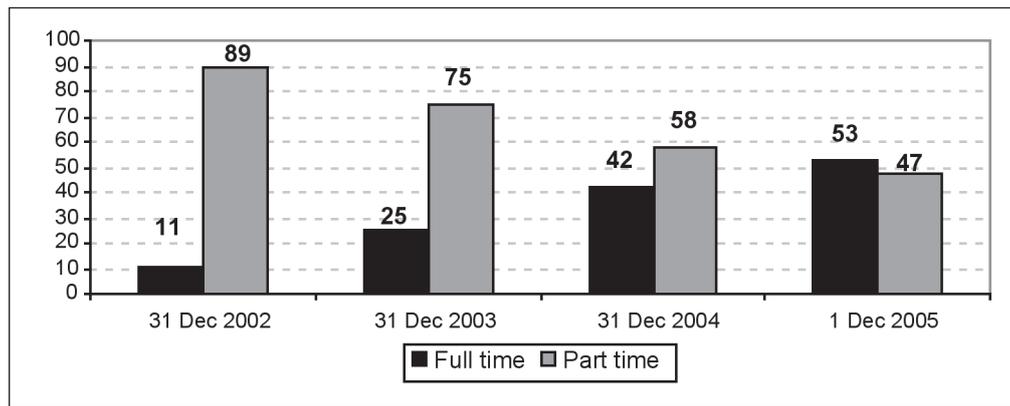
HRH management capacity of the MoH thus requires more development. Until recently, MoH has been directly responsible from service provision such as allocating cadre and staff placement rather than HRH planning, and the conceptual planning work has been undertaken by DPT⁽³⁵⁾. Leadership task of the MoH has increased within the scope of SDP, and this has created a promising foundation in terms of HRH leadership. The newly established Health Human Resources Planning Office of the Health Education General Training has not yet made an estimated about future HRH requirements of Turkey, however it envisages to make a strategic HRH planning in the coming months. Together with this, very few concrete steps have been taken up to date, and there is no clarity on prospective business plans and methodologies.

At a more administrative level in HRH management, the basic elements of a well operating human resources development program are lacking. On one hand, it is true that an administrative infrastructure is well operating for human resources management. It is easy to access over internet to staff information for public officials. Here information is provided about service history, points accumulated in Staff Distribution Chart, salary past, educational information and similar subjects. The centralized administration of human resources management is to ensure that this information is used for managing public sector HRH. On the other hand, management of staff is not executed by mechanisms specific to MoH in terms of facilitating the management. In addition to the State Public Officials Law No. 657, there are various laws determining the conditions of employment of public officials. These include Law No. 1219 setting the principles of physician occupation (put into force in 1928), Law No. 5634 setting the principles of nursery occupation (rearranged on 25.4.2007), and Law on Socialization of Health Services no. 224 defining the role of HRH (put into force in 1960). In spite of this, efficient management applications in the development of human resources require supplementary tools in general for facilitating well understanding of these laws among the employees. Policy handbooks for those included in human resources management and well operating manuals which compile and explain information indicated in general laws do not exist in health sector to the best of our knowledge.

4.3.2 Human Resources Leadership in Private Sector

Private sector regulation and monitoring capacity of the MoH has historically been weak. MoH acknowledges that the private sector has a supplementary task in the provision of health services in Turkey. For example, in rural areas where the health clinics tend to be weak, MoH accepts that it is required to rely on services privately provided in order to support primary health care networks⁽⁴¹⁾. Acknowledging that public sector salaries might not be sufficient for motivating the HRH, employment of public sector HRH in private sector on part time basis is permitted. In fact, a study conducted in 2001 has demonstrated that public sector physicians working part time in private sector earn 5 times more compared to those working full time in public sector. Interestingly, as indicated in Figure 8, only less than half of specialist physicians working in the public sector worked on half time basis in the private sector in 2005, where the rate of those working in private sector on part time basis in 2003 was around 90 %. This trend demonstrates that increasing the importance of revolving fund for specialist physician earnings has decreased the perceived need in terms of supporting the basic salaries with moneys earned from private sector.

Figure 8: Full Time – Part Time Working Trends Among Specialist Physicians



Resource: Health services performance management, presentation, MoH 2007.

On the side of regulation, issuance of license to private health facilities primarily focuses on structural legislation and providing staff employment norms. Inspection of hospitals is performed by Provincial Health Directorate, which seems to take place quite capiously, and compliance with physical and equipment standards is thus ensured. Inspection of polyclinics is performed by Provincial Health Directorate, and same aspects are emphasized¹⁷. However, in both cases, follow-up inspections continue to focus on infrastructure requirements and staff levels, failing to put the emphasis on the quality of service provision. There is no licensing mechanism for private doctors. Lack of human power and regulations at the level of Provincial Health Directorate constitute the basic reasons for such weakness, and the MoH has allocated less than 1 % of its budget to the Inspection Board⁽⁹⁾. There are a couple of private hospitals which have undergone ISO or JCI processes voluntarily for the primary purpose of marketing.

4.3.3 Capacity to Respond Local HRH Requirements

With the exception of Family Medicine pilot practices, there are quite few areas pertinent to local level control of management of human resources functions. Many if not all of HRH functions such as hiring, dismissing, promotions and transfers are managed by the central units of MoH. This organizational structure appreciates assignment by center of the staff to be employed to new posts, thus restricting the authorities of local bodies over staff movement.

Central corporate structure of the MoH may change in two fronts. First, the local authorities increased in terms of HRH functions in provinces where family medicine pilot practices take place. Under the supervision of Province Governors, the contracts for physicians, nurses and midwives are prepared by Provincial Health Directorates, and these directorates are the leading interim units to respond staff issues (for example the demands regarding the review of Performance assessments, which performance assessments are still being executed by the center). However, expansion of this model at national level may lead to unequal distribution of provincial capacities as regards to HRH management. Whereas there are 2,4 Provincial Health Directorate Staff per 100.000 population, this number ranges from 1,1 to 14,5.⁽⁸⁾¹⁸ Secondly, the process of privatization of hospitals under the scope of SDP will increase the authorities on HRH functions. However, the

¹⁷ Community Health Centers undertake certain inspection tasks for regions having Family Medicine system.

¹⁸ This area excludes Istanbul, which is excluded with 0.5 Provincial Health Directorate Staff per 10.000 population.

process of establishing legal grounds for said autonomy achieving process is a delayed one, and it is uncertain when HRH functions will really become autonomous.

4.3.4 Management Information and Management Training

Although the MoH increasingly adopts more complex experience and information gathering techniques, the training required for efficient management of these processes seems to lack. As regards to staff management, MoH establishes an efficient Health Management Information System. Based on the studied conducted in connection with the Personnel General Directorate, there are certain measures adopted (or to be adopted soon) in order to increase planning and efficiency in HRH management. These measures involve a Health Management Information System connecting to Provincial Health Directorates, 800 Hospitals and 934 Health Posts; collection of data every two months from Provincial Health Directorates on active / vacant posts; data of Personnel General Directorate containing information on expected retirement, and updated data sharing in the system for authorized users. Besides the staff administration, Health Management Information System provides an infrastructure having a capacity to develop HRH and system performance. Performance based payment system, which is being implemented in connection with Family Medicine model, will provide data on individual level related to HRH performance (for example number of patients seen, referral rate, monitoring baby follow-up), thus will contribute to the system.

The real capacity to use such type of technologies efficiently increases, though with delay. MoH, through the School of Public Health, provides an efficient in-service management training program for head physicians, who are in charge of the administration of health institutions operating in public sector, as well as for other HRH staff. This training is provided on computer basis (Distant Health Training System), and comprises of twelve basic modules. Some of these modules include “Change Management”, “Basic Finance Analysis”, “Performance Management”, “Team Work”, and “Project Management”. As of the end of 2007, 2.000 participants will have completed all of these modules. It is estimated that the cost of this program will be quite economic (around 20 YTL per trainee), and the MoH envisages to scale this training in the future so as to be provided to 10.000 people working at administrative posts under HRH. School of Public Health signs contracts with a couple of academicians for preparing hospital and administrative management training programs (at provincial level and at medium level) with graduate education scope, so as to provide training for 5.000 staff every year till 2008.

Health management training is also provided as undergraduate training. Trainings provided on this issue are still seen as insufficient, requiring improvement. Currently training is provided in health administration faculties of three universities (Hacettepe, Marmara and Ankara University). Besides, in eight universities, there are ten different programs for training on the field of health management¹⁹. Courses cover such issues as strategic planning, financial management, use of health management information systems, human resources management and organizational behavior for hospitals and other health institutions⁽⁴³⁾. However, number of said staff trained on health management is at a medium level. For example, Health Administration Faculty of Hacettepe University has given only 60 graduates in the past few years. This number is low compared to late 1990s (for example, 91 in 1990)⁽⁴⁴⁾.

¹⁹ Some of degrees that will be provided under this program: two-year undergraduate (two programs), four-year undergraduate (four programs), graduate (nine programs) and graduate (two programs). Besides, nine programs give certificate on health management.

5. STRATEGIES OF THE MINISTRY OF HEALTH ON THE EXISTING HRH AND FUTURE PROBLEMS

MoH acknowledges the presence of HRH problems, which have been existing for long, taking steps for the solution thereof. MoH has taken some steps in order to consider some of the problems of HRH related to distribution and performance, however, there are many other problems to be solved.

5.1 Renewal of the Focus on Primary Health Care Services

Family Medicine practice represents a significant step in terms of strengthening health system at primary health care level. The model, which benefits from the experience of various European countries, focuses on the continuity of preventive and curative services with a team comprising of Family Medicine HRH. This team may include a family physician, family physician technician (for example nurse, midwife and laboratory technician) and family dentist. The model is currently being implemented as pilot in more than 11 provinces, each team serves to a population between 3.000 and 4.000. MoH plans to assign a total of 22.000 – 24.000 family physicians overall Turkey in order to expand this scale.

5.1.1 Family Medicine and HRH Outputs

Family Medicine practice considers various beneficial aspects in terms of demonstrating many of concerns related to HRH, which were dealt with previously. These include overcoming geographical and skill imbalances, as well as increasing service provision quality. Some of these benefits include concluding team-based contract, double factor payment system based on patient registry and performance, employment of family physicians, in-service trainings applied for increasing clinical skills, and increasing local authority on HRH functions. Family medicine system emphasizes an understanding of service comprising of a team, depending on local conditions. The team concludes simultaneous agreement with Provincial Health Directorates, and their joint performances impact the part of payment connected with performance. Such a team oriented approach is consistent with the literature which suggests that the service quality is better when the services are provided by the team ^(45, 46).

Secondly; whereas the payment system provides motivation to enable that the quality of service provision is better, it also tries to delimit the costs. While part of the earnings of practitioners, who are family physicians, is due to the patient registry levels, the remaining relies on meeting certain performance criteria. In terms of per capita payment, family physicians receive a total payment for providing a minimum patient registry threshold, and there is increase in per capita payment up to a certain maximum value for the following patients. For example, in Düzce, family physicians receive 1.500 YTL (800 YTL for nurses) for the first 1000 patients registered, and 1 YTL (0.40 YTL for nurses) per patients up to maximum 4.000 patients thereafter. In terms of performance based payment, family physicians can initially receive maximum level of payment, but if they fail to meet the performance-based criteria (for example, the indicated vaccination rates, infant monitoring, pregnancy monitoring, referral rates), a certain percentage is deducted from the maximum payment indicated. In addition to this, additional allocation is made to family physicians to cover examination office costs, other staff costs and mobile service (for example, in Düzce, this amount it 2.000 YTL monthly). While the payments are currently made from the MoH, the newly established SGK will undertake the per capita part of the payment in the near future.

Thirdly, in-service training program is considered as an approach which is suitable to ensure that the family physicians receive sufficient training in this transition process (certain components of in-service training were discussed in Section 4.2.2). Transition to Family Medicine model is a long process. Long term sustainability will rely on the inputs provided to family physician specialty as part of the undergraduate medical training, and such an approach is not valid for two reasons for the time being. First, currently there is no sufficient ground for those who are specialized on the issue of family medicine at the moment. In this regard, it could be concluded that, in addition to the fact that family physicians constitute 2 % of the doctors in Turkey, they meanwhile tend to work in urban areas and secondary health facilities. This plan is not a suitable basis for constructing a program at national level. Secondly, there is a need for change of time and mentality before expecting the family medicine to become attractive. As in the case in many countries of the world, family medicine specialty is not a branch of specialty which is highly demanded as other medical specialties, or is considered as prestigious. The reason for such a perception may be the fact that the family medicine specialists are not required to undergo an exam which tests specialty knowledge as other medical specialty assistants do, and are required to pass a foreign language exam which only tests their English knowledge²⁰. For this reason, it can be seen that the existing policies, which envisage that the resources are used towards increasing the knowledge and skills of physicians performing as general practitioners, rely on a quite realistic basis.

Finally, family medicine practice supports the policies that the roles undertaken by Provincial Health Directorates should be increased, decentralization should be promoted and authority should rather be granted at local level. In pilot provinces, the capacity of Provincial Health Directorates to prepare general practitioner contracts and inspect the processing of family physician model (under the inspection of Provincial Governors) demonstrates that the authority is partly a delegation. Also it should be noted that the MoH has provided the system to discuss the problems with Düzce province and provide feedback. Construction and support of local capacity of family physician system to manage local models, is quite compliant with the strategy of the MoH to shift from the role of being direct providers of services to act as the leader of health sector.

Some preliminary evidences demonstrate that the combination of these factors will help meeting the efficiency and quality targets of family medicine. For example, Düzce Provincial Health Directorate is in the process of completing a report on trends in the performance based payment indicators and patient satisfaction under family medicine service model. Performance indicators demonstrate a progress in some aspects, and increase in patient satisfaction. Results demonstrate that the components of family medicine meet the required targets, though yet at a preliminary level.

5.1.2 Future Problems for Family Medicine Model

An Information and Level of Satisfaction Measurement Research has been conducted about Family Medicine in Düzce province in 2006. According to the results of the research, in which 5200 families have participated, it was indicated that 79 % of the population of Düzce were aware of family medicine services, and 77,5 % have been satisfied with the family medicine services used by them. The reasons for not being satisfied from the service included as three leading causes the problems experienced in referral (26,3 %), lack of service and interest (16,3 %), and lack and insufficiency of physician (12,9 %). Rate of participants believing that the family medicine

²⁰ This policy has been put into force in order to encourage specialty and increase the number of candidates.

application will be beneficial for the public is 72,7 %.

Together with this, successful development and implementation of family medicine is yet to take place. Particularly there are various issues to be considered to draw both the patients and the health professionals to the system. These include ensuring that the patients use the model towards the purpose it was designed for, attracting sufficient number of HRH to become family physicians, and transforming a team oriented model to a real team work in practice.

On the demand side, encouraging the public towards utilizing the system may be a challenging process for two reasons. First of all, in Turkey, people have the habit to apply to health system at secondary and higher service levels (see Section 3.3.2). It is the task of the MoH to convince people about the quality of family medicine services. Secondly, control over the referral system (which is a significant determinant in order to ensure that family medicine model turns to be eventually successful) is not mainly in the hands of the MoH. Family medicine model can only work with a well functioning referral system. MoH has encountered with some problems in terms of implementing this system in pilot provinces, and there is a possibility that such problems may occur in the future. Besides, as the payment to be made to family physicians will be undertaken by SSI, MoH will have a less control in terms of implementing the referral system. In fact, SSI has indicated that it would have objections in terms of implementing the delivery system until it sees that the quality of health services provision is at a satisfactory level ⁽⁴⁷⁾.

When considered from the supply side, MoH is faced with certain problems. First of all, there is an uncertainty about the assignment of family physician required as the scope of the program is extended. As indicated before (Section 4.2.2) MoH faces with 6.000 to 8.000 family physician candidates in the public sector, and it is unknown that how many physicians from the private sector will find the system attractive enough to be included in the existing applications. Furthermore, addition of a certain amount of new physicians to the payroll number of public staff may have financial impacts, which would concern other stakeholders than the MoH. A high portion of revolving fund financing is obtained from social security contribution share payments made to institutions. If the increasing number of family physicians are associated with improved service access and additional service use (as desired by the MoH), the contribution of social insurance payments to the revolving fund will also increase. SSI will not only be responsible from direct financing of family physicians, but also the indirect financing will increase (through revolving capital). The impact which the increasing number of family physicians will crease on this financing process will crease certain new difficulties in terms of the MoH, which works in collaboration with SSI.

In addition to this, the contracting mechanism for family physicians may face with resistance in the future. Physicians met in Duzce have indicated that the contracting mechanism and the security of being public official played an important role on the decision they would give about whether to become a family physician. Some physicians who reject to become family physician have associated this with the fact that the contract based employment system caused more insufficiency for them. Other physicians who accepted family medicine have indicated that they accepted this since they knew that they could return back to public office if they terminate their contracts, and that they would not have accepted if there had no been such a guarantee. Together with the current trend towards minimizing the dimension of the public sector (see Section 4.1.1), agreement can be reached on enabling the MoH to provide employment securities in the long run. In case that said security is not given as the family medicine program is extended, it may become hard to find general practitioner who will accept family medicine contracts.

In addition to general practitioners who are interviewed on performance based component of family medicine application, the performance based deductions made for those who do not meet certain standards according to economic theory also decrease motivation. Rather than making deductions from maximum additional payment, the component should be organized so as to reach to maximum payment based on performance. While this situation may generally provide sufficient incentive for those do not meet performance standards, it may also decrease motivation decline²¹.

In addition to this, MoH health will face with some problems in practical implementation of team based service provision. Although the team orientation of family medicine is worth praising, there are two factors that might let it cease to be efficient. First, it may be difficult to leave the physician oriented system which is widely seen in Turkey's health services culture. Compared to other categories of health professionals (particularly nurses and midwives), it can be apparently seen from various aspects that issues pertinent to physicians are considered as much more important. This situation is reflected to some extent to the priorities of the MoH. For example, Family Medicine in service trainings have been developed considering the EU standards and focus in specialty trainings has been on becoming consistent with EU standards. Laws pertinent to nursery were rearranged with the Law no. 5634 issued on 25.04.2007 and business definitions were determined, and the men were allowed to enter to nursery occupation. Being different from family medicine application, in performance based additional payments, the salary based ceiling rate is 700 % for specialist physicians and 200 % maximum for the nurses. The fact that there is a lack of a real team work on the basis of family physicians and nurses /midwives despite the fact that the physicians are the leaders of family medicine, may be considered as an element which decreases motivation in terms of nurses and midwives, and diminishing the service quality.

Secondly, the MoH may be required to determine staff norms at national level both for the nurses and for physicians. The family medicine practice in Düzce province obliges a physician and nurse /midwife team. Medical secretaries for administrative correspondences and reporting are not required. Although the provincial health directorate provides 2.000 YTL monthly for office costs and employment of auxiliary staff, it is in the hands of the physician individually to allocate such finance. Some nurses who are interviewed in the said province have indicated that, in teams where there are physicians who prefer not to employ administrative staff, the nurses have undertaken the document burden and that they thus failed to allocate time for nursery services. This situation can be considered as a condition that decreases motivation. As the Family Medicine model in expanded, minimum staff norms at national level bringing administrative conditions can be developed.

5.2 Overcoming With Imbalances Pertinent to Distribution

MoH has recorded significant progress in terms of struggling against imbalances in geographical distribution of the health staff. These progresses have provided more meaningful results particularly in some HRH categories, and there had been significant decrease in the imbalances in the distribution of specialist physicians. This issue has further been mentioned in Section 3.2.1 (see Figure 2,3 and4).

²¹ The expectation theory suggests that people prefer to avoid losses rather than earning.

5.2.1 Mixture of Incentives

Measurement and incentive mechanisms of the MoH have led to failure to develop services in rural and disadvantaged regions, to motivate and to decrease geographical distribution imbalances. These measurement and incentive mechanisms include financial incentives both as salary and revolving fund earnings, compulsory service application, implementation of staff distribution chart and employment of contracted staff. This analysis has failed to sufficiently assess the relative contribution provided by any incentive towards overcoming geographical imbalances, however, when the whole picture is viewed, it can be said that the MoH incentives have been successful to some extent.

5.2.2 Future Issues in Terms of Mixture of Incentives

In order to develop better geographical and skill distribution in addition to motivation and service quality, there are certain hindrances in terms of finding efficient monetary and non-monetary incentive balance. On the other hand, long term efficiency of the existing incentives is at a limited level. First, although the compulsory service has been effective in terms of decreasing the geographical imbalances among HRH posts, this should be assessed as a short term solution. Problems pertinent to compulsory service are also recorded by others⁽⁹⁾, and this has been evidenced with the decision of the MoH to abolish the system at the beginning of 2000s due to motivation problems. Although support among certain HRH posts has been effective in terms of distribution, there are reasonable causes to suspect that it will lead to same motivation problems in the long run.

As explained beforehand (Section 4.1.1), the ceiling established for filling the positions in the public sector efficiently decreases the public official labor force. Although this does not mean a decrease in the number of health staff (contracted staff employment are not affected from ceiling policies), this demonstrates that the MoH is in a new structuring. This restructuring grants some flexibilities in the Public Official s Law on such issues as recruitment, dismissal, employment period and conditions. On the other hand, the authority of the MoH to guarantee returning back to public official post should be taken into consideration. In fact, some family physicians met in Düzce have indicated that they would not have signed their contracts if they had not had the option to return back to public positions. If the current trends in terms of increasing the size of public official posts and increasing the role of the employment through contracting continue, the MoH may face with wide scoped concerns of health providers. Due to the fact that public position does not have a flexible structure, even if there is an efficient policy in the long run to be used for employment of contracted staff, this may require consideration of compensation -related incentives for balancing the security loss.

On the other hand, it may be difficult to implement non-monetary supplementary incentives for encouraging the development of family medicine practice. Although monetary incentives constitute a significant source of motivation, other factors should not be disregarded. These include opportunities for occupational progress, continuous training and skill development, living and working conditions and training opportunities for the children. Non-monetary career based incentives for family physicians may address to some of these assessments. For example, priority could be given to family physicians, nurses and midwives who have worked in rural and disadvantaged regions for a certain period to receive specialty training and assignment (including field and place of residential position), or they may be provided with management training to

become head physician, head nurse etc. However, ensuring priority in specialization training will require more cooperation with HEC than there is today.

5.3 Consideration of Quality Issues

In recent years MoH have been focusing gradually more on the issues of quality and efficiency. It is among the leading priorities of the MoH to establish performance assessment mechanisms at corporate level.

5.3.1 Performance Based Payment

Performance based payment is a system of payment providing additional payment to persons and institutions meeting certain indicators related to performance. This system is currently implemented at the level of practitioner physicians (since 2004) and at corporate level (since 2006). Besides, it is planned to add a manager component in 2007. At the individual level, all of the points are accrued on the basis of 5.200 procedures which require clinical decisions. Number of points for each procedure is proportional to the monetary payment made for these services. Ceilings pertinent to annual additional payments are regulated separately for different HRH categories. For example, whereas the head physicians could receive payment up to 800 % of their basic salaries, specialist physicians can receive additional payment up to 700 % of their salaries, general practitioners up to 500 % and nurses up to 150 – 200 %.

At the corporate level, hospital corporate performance scores are calculated as average score for all hospital physicians (the average is applied to staff such as administrator and nurses, who do not have individual performance points). Points are divided to 40 % of the income coming from the revolving fund, and distributed according to the weighted positions of the staff. In the pointing system, more weight is placed on the specialists and general practitioners in order to be more encouraging against the private sector, and as an additional incentive, the point is decreased by 70 % for physicians working in private sector. Provincial health directorates and community health centers may earn additional point up to 1.000 for positive indicators increasing in preventive programs (such as infant monitoring and prenatal care).

There are preliminary evidences on the fact that performance based payment system increases service provision quality and patient satisfaction. Number of patients has increased as the performance based payment is put into force, and the period of stay in MoH hospitals has decreased, and a 10 % increase has taken place in patient satisfaction⁽⁴⁸⁾. A recent analysis conducted in Düzce demonstrates that there was a progress in many health indicators since the implementation of the model, for example there has been an increase in the number of child follow up visits and referrals rates have decreased. Patient satisfaction in the said province has increased from a couple of aspects⁽⁴⁹⁾. To put it more general, MoH asserts that there is no significant change in the findings among provinces, which demonstrates that the performance based system did not increase injustice among the provinces⁽⁴⁸⁾.

5.3.2 Future Problems in Performance Based Payment

Impact of performance based system on quality and efficiency can be classified under two reasons. Possible decrease in returns, and unknown future. Current performance based payment

may face with decrease in return in terms of efficiency and quality earnings. Performance is awarded on the basis of increases (decreases) compared to the previous period such as number of child monitoring visits (number of referrals). If the existing levels are comparably low (high), there may be initial acquirements and also the potential of improvement will decrease as the performance approached to ceilings (bottoms). MoH thus may not assess the efficiency and quality acquirements as the initial progress towards the future of the same size.

6. POLITICAL CONTEXT

Any decision or change in health sector involves a political process. For example, HRH financing level will include determination of decision making power at the local level, assessment of different viewpoints of stakeholders and /or negotiation among them. In fact, World Health Report (2000) emphasizes the need for political and stakeholder analysis on the issue of assessing the performance of the health system. These are two aspects of performance which were lacking in previous analysis ⁽⁵⁰⁾.

6.1 Stakeholder Analysis

“Policy Maker” approach (51) provides a methodology for political and stakeholder analysis such that this approach is still being adapted in analyzing the political content of the current HRH policies and the future reforms. “Policy Maker” approach defines five main components pertinent to a comprehensive assessment of policy making processes and developing / assessing political strategies for effective policies. These five components include the following:

- **Policy:** Defining and analyzing the content of the existing policies and policy changes selected to demonstrate the identified problems. This involves both the definition of the targets of policies, and identification of mechanisms or specific policies required to reach to these targets.
- **Stakeholders:** Determination of the positions and power of all key stakeholders on the existing and future policies, and definition and determination of the results of the future policy changes for each stakeholder
- **Opportunities and obstacles:** Analyzing the contextual opportunities and obstacles for the future policy changes that might impact the adoption and implementation of reform.
- **Strategies:** Definition of political strategies (including the decrease of opposition after the mobilization of supporters) to be used for adopting and implementation of policies or reform
- **Impacts:** Estimating how each of the strategies will impact the future positions and power of the stakeholders. This estimation will ensure adoption, implementation and assessment of the policy or reform, and could turn into an action plan.

This report focuses on a stakeholder analysis of the existing HRH policies. As indicated before, the purpose of this report is to create a dialogue among the MoH and stakeholders which will lead to a comprehensive strategic plan towards human resources in health. The methodology of the report aims at assisting stakeholders systematically in various issues related to HRH, however future policy changes should benefit from this dialogue. A stakeholder analysis of the existing policies will thus prepare grounds for the policy analysis of future reforms, and the subsequent policy analysis is excluded from the scope of this report.

6.2 Current Policies, Stakeholders, Position, Power

Relies on a combination of analyzing the positions and powers of relevant stakeholders, reviewing the literature and negotiations to be held with stakeholders. The position of each

stakeholder is determined based on the information supplied to the consultancy team during negotiations, as well as on the documentation and literature in hand. Determination of this power is estimated according to four types of resources in the hand of stakeholders. These are financial resources, organizational resources (for example office equipment), leadership resources (degree of stakeholder leaders to focus on the subject) and non-material resources (such as access to information and perceived legitimacy).

6.2.1 Public Sector Institutions

Main public sector stakeholders involved in various aspects of HRH are the Government of the Republic of Turkey, MoH, MB, SGK, DPT, HEC and Provincial Governors (and Provincial Health Directorates).

6.2.2.1 Government of the Republic of Turkey

Government of the Republic of Turkey is the driving power behind the HTP and policy changes pertinent to HRH (40). Current reforms and reorganization in the health sector have been the main component of campaign commitments of the existing government. The emphasis of the government to decrease the scale of public sector and implement new public sector management techniques, is consistent with various changes related to HRH (for example the ceilings on filling the vacant public official positions, contracting with family physicians). Rapid character of the structural reforms in the health sector demonstrates that the Government is powerful.

6.2.1.2 Ministry of Health

As the leader of health sector and a part of the government, MoH is a stakeholder in terms of all aspects of HRH. Its positions and authorities pertinent to different aspects may be summarized as follows:

Financing of HRH in the public sector: Currently, MoH has focused on providing an increase in the level of physicians through family medicine. MoH exerts a middle level power on HRH levels, and it engages in successful negotiations on high current budget each year with MB. However, successful steps have been taken about increasing HRH production between the MoH and the autonomous HEC.

HRH aspects in implementing the family medicine: The driving power of the MoH on selected policies as the driving force behind SDP and the general HRH policy is as follows:

Contracting with family physicians: MoH's power on this issue is between middle level to high level, however it is possible to decrease in the future. MoH, as the institution in charge of concluding contract with the family physicians in pilot provinces, has an important effect on period and conditions. Provincial Governors control the authorities of the MoH to some degree, however, in many cases, it has delegated the authority on HRH functions to Provincial Health Directorates, or is included only in part of HRH functions. For example, Duzce Governor's Office holds the authority to review the demands of Provincial Health Directorate for terminating the Contract. If SGK undertakes the responsibility to conclude Contract with family physicians, the role of the MoH in this process will significantly decrease if not ceases.

Payment of Family Physicians: MoH's power on this issue is at high level; however it is possible to decrease in the future. MoH has determined periods and conditions on parts related to both per capita and performance related to the payment of family physicians. However, the role of the MoH for payment will decrease, if not cease, when it undertakes to conclude contract with SSI family physicians.

Pre-service training of HRH: MoH desires to see an increase in the number of enrollment to training at least in some categories of HRH (for example doctors). However, MoH uses at least one authority on both HRH production and the quality of pre-service training. It has no place in the picture determining the number of admission per HRH category, and it does not play any role in developing and reviewing the curriculum. In fact, transition to four-year university level training for nursery has decreased its role in pre-service training.

Post-graduation HRH training: MoH provides specialty training in MoH Training and Research Hospitals, where admission and service quality assessment are performed by it. It should not be forgotten that the number of assistants trained in University Hospitals is higher. While the MoH improves its policies towards primary level, positions which are provided by the universities for specialty training and number of which gradually increases may shift significant number of staff, who have less possibility to work at the primary level, to specialty areas.

6.2.1.3 Ministry of Finance

Interest of MB on HRH is related to the aspects impacting current costs. Primary managers of these costs are HRH's skills distribution and general level employed by the public sector. MB's position in terms of both level and skills distribution is to some extent dependent upon the proposals given by the MoH. MoF assesses how these proposals fit to the general budget and development plans of the governments. It is said that the MoF expressed its hesitations on high salaries paid from the revolving fund in addition to basic salaries, because this may cause other public officials to create a pressure on the government to have same rights. However, the efficiency created by the revolving fund in the sense that it attracts physicians from the private sector has been convincing for MoF (27). MoF has a strict authority on these two aspects and it puts budget parameters with current cost which the MoH should negotiate the final allocations. MoF has responded the demands of the MoH about budget increases, because the clear priorities of the government are in favor of health, training and justice.

6.2.1.4 Social Security Institution

SSI is in the process of unifying three inter-independent social security institutions under a single roof, and create the mechanisms required for such unification. Resources required for HRH as one of the largest financial institutions in the sector, play a significant role in terms of taking decisions relevant to revolving fund. SSI continues its works to provide significant improvements in more efficient utilization of financial resources and in the quality of services provided. The General Health Insurance Directorate newly created within the institution works in family medicine approach, which is considered as a more efficient tool for the improvement of service quality. SSI assesses options pertinent to future practices on such issues as those which are required for referral by the general practitioners to the hospitals, contracts to be concluded with those who will be included in family physician system and with private suppliers, quality assessment mechanisms, prudent drug use and repayment mechanisms and other key points. Determination of the official position of the institution related to policies on these issues will certainly take time.

6.2.1.5 State Planning Organization

DPT is an organization with severe power and authority in terms of negotiations pertinent to eight yearly development plans and capital investments, including the creation of physical infrastructure capacity for HRH training. However, it deprives of the authority to monitor development plans which constitute a contradictory condition.

6.2.1.6 Higher Education Council

HEC determines the number of students to be admitted to medical faculties in order to protect and improve the quality of medical education. Despite the efforts of the MoH to establish dialogue with HEC towards increasing this number, HEC continues to protect the current level of student admission. HEC has a high power and authority in terms of pre-service admission and the quality of training (preparation of the curriculum and review thereof).

6.2.1.7 Province Governors

Province Governors lead all health services in the province and they fulfill this task through Provincial Health Directorates comprising of the MoH staff. Since health services are fully centralized, the task of Provincial Health Directorates is limited to daily administration. HRH authorities on such issues as assignment of hospital deputy directors and concluding contracts with contracted staff are transferred to the Governors. Governors also have some tasks pertinent to the allocation of health staff within the province through temporary assignment.

6.2.2 Non-Governmental Organizations

The major non-governmental organizations playing a role in terms of HRH are occupational groups, associations and societies. In general, non-governmental organizations in Turkey are not considered as 'very powerful', and there are only a couple of organizations supporting the occupational organizations and unions to be included in HRH policy making⁽⁴⁰⁾.

6.2.2.1 Turkish Union of Physicians

Turkish Union of Physicians opposes many policies of the MoH, including the family medicine system and increasing the number of physicians, and it is a civil society stakeholder which has been existing for long in the health sector. Turkish Union of Physicians considers family medicine system as a model supporting individual based curative services rather than an integrated protective primary health care services system. Turkish Union of Physicians desires that the revolving fund is included in the basic salary in order to abolish long termed sustainable uncertainty on revolving fund. The authority of Turkish Union of Physicians is at a low level, its insufficiency to prevent HTP despite its opposition to almost all of its components evidences this⁽⁴⁰⁾.

6.2.2.2 Other Associations and Unions

There are various associations and unions who are interested in HRH policies. These include *inter alia* the following: Turkish Union of Physicians, Association of Public Health Experts, Turkish Family Medicine Union, Association of Nurses and Association of Private Health

Institutions. Association of nurses opposes family medicine system, particularly the performance based payment. Each union has a different standpoint, and consultants could not have individual negotiations with these unions. However, it can be assessed that the unions have in general low level of authority, despite some exceptions ²².

6.2.3 International Organizations and Agencies

Two major international organizations playing important role on HRH are the European Union and the World Bank. Due to the fact that Turkey is a country included in the process of participating in the EU, Turkish legislation and regulations related to HRH should be harmonized with EU laws and regulations. As an example, legal grounds of nursery, medicine and pharmacy occupations are only partially in compliant with the EU standards (52). Despite clear statement by Turkey towards its accession to the EU, the recent negotiations between EU and Turkey which demonstrate that the enthusiasm of both parties on agreement has to some degree been lost, demonstrate that the power and authority held by the EU is at a medium level.

Currently the main issue which the World Bank principally deals with is SDP. While currently the first phase of the Program, which is financed with 60 million \$, is being implemented, this process is the guarantee of the in service training on family medicine towards general practitioners. As can be understood from this contributed, the World Bank supports the family medicine practice of the MoH and the decentralization process through hospital autonomy. In this regard, the World Bank provides financing support in middle run for in service trainings on family medicine. However, external sources towards health sector expenditures are not at a high level (less than 10 % of total health expenditures).

²² Agartan (2006) indicates that Turkish Association of Family Physician Specialists have contributed in the creation of certain reform designs in recent past.

7. STEPS RECOMMENDED FOR THE MINISTRY OF HEALTH

Previous analyses have tried to demonstrate in general the issues which the MoH should consider as priority as it continues with HTP. In this regard, HRH outputs in terms of level, distribution and performance, and the policy mechanisms towards creating financing, training, management and policy have been taken into consideration. Some problems which have been existing for long (such as geographical imbalances) as well as works conducted in relation to these problems (such as mixture of incentives) as well as some new challenges expected to arise in near future (such as team based service supply) have been demonstrated.

Based on this analysis, there are some recommendations for the MoH based on the consideration of HRH problems in relation to ongoing implementation of HTP. These recommendations are briefly indicated below.

7.1 Maintaining Leadership Works to Constitute an Official HRH Strategy

This report pays attention to create a HRH document consistent with general health policies and plans. As can be understood from the studies of MoH pertinent to situation assessment of HRH, there is a need for a comprehensive framework to demonstrate problems related to HRH. Current HRH policies are a basis for a strategic plan. However, there is a need for a strategic document which will systematically analyze the problems to be created by implementing these policies as a whole. A strategic HRH plan may be beneficial for demonstrating certain interconnected special difficulties. In this regard, certain challenges which MoH faces with are suitable mixture of skills, in-service training for general practitioners in family medicine, improvement of services in rural and disadvantaged regions, motivation of labor force in health, coverage of labor force categories in overall health and demonstrating in-service training products suitable for health needs of Turkey. Focusing on universities in regions having priority in development may be compliant with development policies of Turkey. Creating local capacity in the training of health professionals may encourage these people to receive training and provide service in the place where they live. Whereas recommendation on certain special strategies is outside the scope of this report, the content of this report is to emphasize the importance of a strategic plan that should be considered to take HRH as a whole.

For this reason, it is recommended that the MoH chairs a well-defined process to create an official HRH Strategic Plan. This document can be used to create a grounds for negotiation with the stakeholders that hold the key positions in the planning of new strategies (for example SDP, decentralization, training production, performance based payment, physician-oriented intervention etc.) and including new developments in the system by systematically demonstrating the current HRH problems.

7.2 Ensuring Union of Opinion With Stakeholders at Key Positions

Political analysis of this report examines a series of stakeholders in relation to HRH. It is also seen that some stakeholders other than the MoH are influential on the key components of HRH strategical plan on such issues as the outputs of training. These two components emphasize the importance of a comprehensive process in creating HRH strategy. For this reason, MoH may continue to undertake the leadership role in terms of ensuring union of opinion among stakeholders as a tool for HRH strategic middle and long run planning. Besides, special efforts

should be continued to involve HEC, occupational associations and other relevant stakeholders in the process.

7.3 Additional Works to be Conducted for Providing Information Towards Future Strategic HRH Plans.

MoH has a very valuable opportunity to develop an evidence based approach for a future oriented strategic HRH planning. The System Management Information System in the MoH routinely collects data, which has been gradually improving since the commencement of realization of performance based payment system, and which has become more detailed. Other research institutions affiliated to the MoH have the opportunity to obtain more information (from qualitative and quantities aspects) Current data and the analytical capacity existing in the country may provide beneficial information on what will be beneficial and what will not in relation to the future HRH strategies. In addition to the information required for creating middle and long termed strategic HRH plan, School of Public Health and other stakeholders may execute certain additional works on some areas, which are not yet researched and analyzed, in order to monitor and assesses the existing strategies and incentives. These researches and studies include;

- Examination of other data resources for a better understanding of HRH capacity,
- Assessing the efficient encouragement levels required for encouraging the health workers to work in the disadvantageous regions,
- Assessment of the impacts of compulsory service on motivation
- Performance based payment and impacts of this implementation on increasing efficiency and quality,
- Conducting researches related to patient, supplier and public satisfaction for assessing certain differences observed on the perceived quality of health services, and
- Determination the quality of certain preferred services towards improvement of patient / physician rates in clinical terms.

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