

TURKEY HEALTH TRANSFORMATION PROGRAM



**EVALUATION REPORT
(2003-2010)**

Prof. Dr. Recep AKDAĞ

Editor

Prof. Dr. Recep AKDAĞ

T.C. Sağlık Bakanlığı Yayın No: 839

ISBN: 978-975-590-377-4

Haziran 2011

Content

| | |
|---|-----------|
| FOREWORD | 9 |
| PREFACE | 11 |
| REMARKS | 13 |
| INTRODUCTION | 15 |
| OUR HEALTH POLICIES FROM THE PAST TO THE PRESENT | 17 |
| Health Policies Between the Years 1920-1923 | 19 |
| Health Policies Between the Years 1923-1946 | 19 |
| Health Policies Between the Years 1946 - 1960 | 20 |
| Health Policies Between the Years 1960-1980 | 23 |
| Health Policies Between the Years 1980-2002 | 23 |
| 2003 - 2010 | 25 |
| ANATOMY OF THE HEALTH TRANSFORMATION PROGRAM..... | 27 |
| A-DIAGNOSIS | 51 |
| 1. Financing | 54 |
| 2. Payment | 56 |
| 3. Organization | 57 |
| 4. Regulation | 58 |
| 5. Behavior | 60 |
| B-POLICY DEVELOPMENT..... | 61 |
| C-POLITICAL DECISION | 69 |
| D-IMPLEMENTATION | 75 |
| 1. Primary and Preventive Health Care Services | 75 |
| 1. A New Era in Primary Health Care: Family Medicine | 78 |
| 2. Maternal and Child Health | 86 |
| a. Sexual Health and Reproductive Health Program | 86 |
| b. Women are Getting Prepared for Pregnancy And Motherhood | 87 |
| c. Safeguarding Our Future: Mothers and Children | 89 |
| d. We are Overcoming the Obstacles through Newborn Screenings | 92 |
| e. Intensive Care of Newborns | 93 |
| 3. Immunization Programs: Vaccines | 96 |

| | |
|--|------------|
| 4. Effective Struggle against Communicable Diseases | 101 |
| 5. Crimean Congo Hemorrhagic Fever (CCHF) | 108 |
| 6. Struggle against Chronic Diseases | 109 |
| a. Prevention and Control Program for Cardiovascular Diseases in Turkey | 111 |
| b. National Prevention and Control Program for Diabetes | 113 |
| c. National Prevention and Control Program for Chronic Respiratory Diseases | 115 |
| d. A New and an Effective Approach in the Struggle against Cancer: Early Diagnosis Saves Lives..... | 116 |
| e. Mental Health | 120 |
| f. Elderly Health | 126 |
| 7. Health Promotion | 127 |
| a. Struggle against Tobacco, Alcohol and Substance Addiction | 130 |
| b. Healthy Diet and Physical Activity for a Healthy Future..... | 133 |
| 8. A New Era in Emergency Health Care Services | 136 |
| 9. Oral and Dental Health Services | 141 |
| 10. Healthy Environment and Healthy Human | 143 |
| 11. Employee Health | 144 |
| 12. Climatic Changes | 145 |
| 2. Diagnostic and Curative Services | 147 |
| 1. Uniting Public Hospitals under One Roof | 149 |
| 2. Opening Private Hospitals' Doors to Everyone | 150 |
| 3. Decentralized Management of Hospitals | 150 |
| 4. Restructuring in Hospital Services | 151 |
| 5. Patient Rights | 154 |
| 6. Identifying and Grouping the Roles of Hospitals on an Institutional Basis | 157 |
| 7. Triage and Registration at Emergency Departments | 158 |
| 8. Restructuring in Burn Treatment | 159 |
| 9. Prevention of Hospital Infections | 159 |
| 10. Central Hospital Appointment System (CHAS) | 161 |
| 11. Home Health Care Services | 161 |
| 12. Planning for Cardiovascular Surgery (CVS) Centers | 162 |
| 13. Blood Services | 163 |
| 14. Organ Transplantation | 164 |
| 15. Tissue and Cell Transplantation | 165 |
| 16. Replantation Applications | 168 |

| | |
|---|------------|
| 3. Pharmaceuticals and Pharmacy | 169 |
| 1. A New Era in Drug Pricing Policies | 171 |
| 2. Opening Pharmacies to Everybody | 172 |
| 3. Drug Consumption | 172 |
| 4. Pharmaceutical Tracking System (PTS) | 173 |
| 5. Rational Drug Use | 173 |
| 4. Health Information System | 177 |
| 1. Health-Net | 180 |
| 2. Family Medicine Information System (FMIS) | 181 |
| 3. Hospital Information Systems (HIS) | 182 |
| 4. Web-Based Services | 183 |
| 5. Informatics Studies for the Central Organization | 184 |
| 6. Green Card Information System (GCIS) | 184 |
| 7. Organ Information System (OIS) | 185 |
| 8. Data Bank for Disabled Persons | 185 |
| 9. Document Management System (DMS)..... | 185 |
| 10. Core Health Resource Management System (CHRMS) | 185 |
| 11. Decision Support System | 185 |
| 12. International Projects and Developments | 185 |
| 5. Institutional Structuring and Capacity Building | 187 |
| 1. Human Resources for Health (HRH) | 189 |
| a. Determining the State of HRH and Planning Solutions | 189 |
| b. A Breakthrough in the Employment of HRH in Public Sector | 204 |
| c. Transparency in Personnel Appointments | 205 |
| d. Health Care Personnel Education and Training | 206 |
| e. We meet at the Meeting Point for Health (MPH) | 208 |
| 2. Health Care Service Planning | 209 |
| a. Regional Health Planning | 209 |
| b. Rationalism in Investments | 210 |
| 3. Efforts to Minimize Bureaucracy and Maximize Transparent Management in Health Care Facilities | 212 |
| 4. Public Hospital Unions..... | 215 |
| 5. The New Organization Law | 216 |
| 6. Cross-Border Health Care Services and the European Union | 217 |
| 1. Dynamic and Friendly Foreign Relations | 219 |
| 2. Efforts in the EU Negotiation Process | 222 |

| | |
|---|------------|
| 7. Multi-Dimensional Health Responsibility | 229 |
| 1. Cooperation with the Prime Ministry-Affiliated Housing Development Administration (TOKI) | 231 |
| 2. Public-Private Partnership..... | 231 |
| 3. Cooperation with the Council of Higher Education (CHE) and Universities | 233 |
| 4. Cooperation with the Ministry of Education (MoE) | 233 |
| 5. Cooperation with the Ministry of Agricultural and Rural Affairs (MARA) | 233 |
| 6. Cooperation with the Ministry of Environment and Forestry (MoEF)..... | 234 |
| 7. Cooperation with the Ministry of Labor and Social Security (MoLSS) | 234 |
| 8. Cooperation with the Ministry of Defense (MoD)..... | 234 |
| 9. Cooperation with the Administration for Disabled People..... | 235 |
| 10. Five-Organization Cooperation in Health Financing | 235 |
| 11. Cooperation with the World Health Organization (WHO)..... | 235 |
| 12. Cooperation with the UNICEF | 236 |
| 13. Cooperation with the OECD | 237 |
| 14. Media and Public Relations | 237 |
| 8. Strategic Management, Performance and Quality in Health | 239 |
| 1. Strategic Management in Health Care..... | 241 |
| 2. Performance-Based Supplementary Payment | 249 |
| a. Diagnosis-Related Groups (DRG)..... | 251 |
| b. Manager’s Department Performance..... | 255 |
| 3. Quality and Accreditation | 256 |
| 9. Financial Management in Health Care | 263 |
| 1. Health Expenditures | 265 |
| a. Middle-Term Financial Program | 268 |
| b. Monitoring Health Expenditures | 268 |
| 2. Management of the Global Budget..... | 269 |
| a. Situation prior to the Global Budgeting | 269 |
| b. Implementation Stages of the Global Budgeting | 270 |
| c. Global Budgeting for the Primary Care | 271 |
| d. Distribution of the Global Budget to Hospitals..... | 272 |
| 3. Financial Standards Development and Regulation Procedures | 274 |
| a. Determining the Number of Personnel to be Assigned for Personnel-Based Service Procurements..... | 274 |
| b. Profit Ratio to be Allocated for Contractors for Personnel-Based Service Procurements | 274 |
| c. Wages of Employees Assigned for Service Procurements..... | 274 |
| d. Regulating Time Schedules and Procedures for Payment | 276 |

| | |
|---|-----|
| 4. Optimum Stock Management | 277 |
| a. Implementations of Management System for Resources of Supply (MSRS).... | 278 |
| b. Maximum Stock Amount (MSA) Implementation | 279 |
| c. Requirement of MSRS Questioning Prior to Tenders and Provincial Stock Pool | 280 |
| d. Stock Analyses | 282 |
| e. Establishment of Provincial Stock Coordination Teams and Provincial Stock Pools | 282 |
| f. Establishment of Commissions for Needs Assessment | 283 |
| 5. New Methods Developed for Needs Provision..... | 283 |
| a. Enabling Public Hospitals to Exchange Goods and Services between Each Other | 283 |
| b. Meeting the Needs of Small-Scaled Hospitals by Large-Scaled Hospitals... | 285 |
| c. Bundle Procurement through a Framework Agreement | 286 |
| d. Meeting the Needs of Laboratory Service Providers through Bundle Procurements..... | 287 |
| e. Facilitating the Provision of Needs for Research and Development | 288 |
| 6. Establishing the Financial Management Information System..... | 288 |
| a. A Uniform Accounting System..... | 288 |
| b. Budget Program for Revolving Fund Institutions | 288 |
| c. Strategic Financial Management System | 290 |
| 7. Risk Management and Financial Analysis | 291 |
| a. Financial Risk Management of Institutions | 291 |
| b. Financial Analysis Reports and Financial Action Plans..... | 292 |
| c. Financial Management Meetings | 292 |
| d. Establishment of an Internal Control System | 293 |

| | |
|---|------------|
| E. EVALUATION..... | 301 |
| 1. Implementation Results of the Health Transformation Program..... | 303 |
| A. Improvements in Health Indicators | 303 |
| 1. Life Expectancy at Birth | 303 |
| 2. Infant Mortality Rate..... | 304 |
| 3. Maternal Mortality Rate..... | 305 |
| 4. Routine Vaccination Rate..... | 306 |
| 5. Measles | 307 |
| 6. Malaria..... | 308 |
| 7. Tuberculosis | 309 |
| 8. Typhoid Fever | 310 |
| B. Protecting People from Financial Risks..... | 311 |
| C. Satisfaction with Health Care Services..... | 313 |
| 2. International Reflections of the Health Transformation Program | 316 |
| A. Reports | 316 |
| B. Articles | 341 |
| C. Letters | 347 |
| 3. Other Scientific Assessments on the Health Transformation Program..... | 351 |
| | |
| CHRONOLOGY OF THE HEALTH TRANSFORMATION PROGRAM..... | 355 |
| HEALTH TRANSFORMATION CONTINUES. | 365 |
| 1. Legislative Amendments Planned for the Upcoming Period..... | 367 |
| 2. 2023 Vision of Health | 370 |
| BIBLIOGRAPHY | 377 |

Foreword



We have accomplished what we have promised in our Government Program and our Urgent Action Plan one by one in order to provide effective, equitable, accessible and high-quality health care services for our public. We have put the Health Transformation Program into practice and we continue our services in this field without interruption.

Knowing that health care services is one of the most important criteria making a country livable, we have mobilized all of our sources to provide high-quality, easily-accessible and patient-friendly services for our people.

We, as the government, have always cared about and given priority to the trust that our public have towards the State in the most vulnerable area of health as well as receiving health care services without being writhed and troubled. Thus, we have wanted all our citizens to have a State, which they can be proud of, when having their parents, children, and spouses, and a State, of which they can experience the compassion.

Since we execute the Health Transformation Program in a serious, determined and careful manner, all of our citizens are able to receive their medication and health care services without any discrimination, as equal and honorable citizens, from any health institution they wish. Our hospitals are more modernized now, and this modernization process is continuing swiftly.

While accomplishing all these, we have conceived the delivery of modern and qualified health care services not as a favor but as our responsibility and our main duty, because we think that the essence of both politics and action is human.

The philosophy of “let the man live so that the state lives” is our maxim.

While making effort in order to ensure that mothers give birth to healthy babies and that the individuals are assured of their parents’ health, we have bravely conducted new arrangements that will please every member of the health staff within our existing means.

The most important objective for us is to enhance our efforts in other areas with the health care services while building a healthy society. We know that our nation deserves the best of any services, and we continue on our path by saying “human first”.

I would like to congratulate everyone who put effort into the implementation of the Health Transformation Program and present my gratitude on behalf of my nation.

With all my respect.

Recep Tayyip ERDOĞAN
Prime Minister



Preface

As you know, we have realized an important transformation in the field of health in eight years with the Health Transformation Program. The main goal of this transformation is to make the health care system of the Republic of Turkey compatible with the vision of 21st century and to provide our people with the high-quality health care service that they deserve.

As the 58th, 59th and the 60th Government of the Republic, we set out believing that we had the power to present the citizens a humane, equal and modern health care. We have strengthened this belief by evaluating all efforts that have been made in the field of health since the foundation of our Republic.

We analyzed and assessed the health care systems of many developed countries' on site, and we combined it with our inheritance; thus we have developed the Health Transformation Program, which is a unique and human centered/anthropocentric Model for Turkey.

We have put all the components of this model into effect with the strength we gain from our nation, the instructions of our Prime Minister, the determination of our Governments and the support of the Turkish Grand National Assembly.

Today we all experience the most important outcomes of this program and its contributions to a healthy life. And we strongly believe that we will accomplish better results in the future.

The responsibility of detecting the current status and transferring our vision to all stakeholders has made us share this progress report with you.

At the end of this efficient process, when we look back, the progress made by our government can be clearly seen. Of course, this is not enough for us. We have a lot more to do, a lot more service to provide and a long way to go.

On this occasion, I would like to express my gratitude to everyone -physicians, nurses, midwives, technicians, officers, drivers, in short, to the whole health community- that grasped the essence of health transformation and worked day and night altruistically for public health.

Yesterday was not like this; tomorrow will be much better.

With all my respect.

Prof. Dr. Recep AKDAĞ
Minister of Health

Remarks

The data used in this book for comparison purposes for 1995 and 2002 covers all figures such as those pertaining to the facilities and personnel of public institutions and agencies, which the Ministry of Health (MoH) took over in 2005.

The section titled as “Anatomy of the Health Transformation Program” has been modified from Marc Roberts’s book “Getting Health Reform Right”.

Introduction

Throughout the Republican Era, the health policies implemented in our country experienced some fundamental changes. Some of the important milestones are Refik Saydam era (1923), Behçet Uz era (1946) and the introduction of socialization in health care services with Prof. Dr Nusret Fisek as the pioneer (1963). The Health Transformation Program (HTP) is the last one of those milestones.

On the other hand, during the World Health Assembly in 1977, attention was drawn to the roles that the governments would undertake so that all the people in the world could lead socially and economically efficient lives. And the foundations of the policy “Health for All in the 21st Century” were laid in 1978 at the Alma Ata Conference. In 1984 “World Health Organization European Region Health for All Strategy and Objectives” were accepted.

Implementation of those global policies and objectives in our country has unfortunately remained as a political desire for 20 years. The “Health Transformation Program”, which we have started to implement in 2003, is a comprehensive program that takes all the works made so far into consideration and that aims at generating the most suitable solution with the participatory and democratic decision processes. The aim of the transformation is to organize, finance and deliver the health care services in an effective, efficient and equal fashion. While accomplishing the said goals the Health Transformation Program pays attention to the “Health for All in the 21st Century” policy of the World Health Organization (WHO), the Accession Partnership Document declared by the European Union (EU) and the other international experiences.

The center of the Health Transformation Program is the human. The bottom line is to protect the individual’s health along with the public health. For that reason the main idea of this program is “accessible, high-quality and sustainable health care service for all”.

The 9th Development Plan, which was prepared in accordance with the aims of the Health Transformation Program in 2006, aims at facilitating access to health care services, improving the service quality, strengthening the planning and supervising role of the MoH, developing health information systems, ensuring the rational use of drugs and supplies, and establishing a universal health insurance system. Since 2003, that is, since the introduction of the Health Transformation Program, most of those aims have been achieved. Some of the most important components of the program, which are universal health insurance, facilitating access to health care services, improving the service quality, have already been realized. Also significant progress has been made in terms of the health information system, rational use of drugs and supplies and strengthening the planning and supervising role of the MoH. Detailed information on those topics can be found in the relevant parts of this report.

Executed on this axis, the Health Transformation Program is a complementary part of the national policy. With the implementation of this program, the health care services gain a dynamic ground that can meet the rapidly-changing health priorities of the future.

We have brought the progress we have achieved with the Health Transformation Program, which we developed as a unique Model for Turkey by making use of the recent health policy works, into your attention with examples in recent years. In this book, you will find the updated versions of the success stories that we previously published in the works titled “Progress So Far: Turkey’s Health Transformation Program”, “The Health Transformation Program in Turkey, Progress Report, August 2008”, and “The Health Transformation Program in Turkey, Progress Report, September 2010” with new annexes.



OUR HEALTH POLICIES FROM THE PAST TO THE PRESENT

Besides the continuity of the Seljuk-Ottoman medical tradition, a cultural unity stands out in the organization of the health care services. When this structure was developed during the foundation of our young Republic, a western-oriented path was mostly followed for organizing the state and its institutions and establishing service policies. Within this process, health policies demonstrated basic preference changes in relation with the trends in the world.

Health Policies between the Years 1920-1923

The MoH was established by the Law no. 3 of 3 May 1920 after the opening of the Turkish Grand National Assembly. The first Minister of Health was Dr. Adnan Adıvar. An opportunity of regular recording did not exist in this period. The focus was mostly on healing the damages of the war and developing the legislation. The important point here is that the MoH was one of the first ministries to be established within the young state that was organized before the republic was founded and during the most difficult days of the struggle for existence. The Government of the Turkish Grand National Assembly continued to work for the institutional arrangements of the health care services even during the difficult years of warfare.

In this period, Law no. 38 on Forensic Medicine (1920) was passed.

Health Policies between the Years 1923-1946

During his ministerial term, beginning from the foundation of the Republic until the year 1937, Dr. Refik Saydam made great contributions to the establishment and development of the health care services in Turkey. According to the records we have today, health care services were provided by the government, municipality and quarantine centers, small sanitary offices, 86 inpatient treatment institutions, 6.437 hospital beds, 554 physicians, 69 pharmacists, 4 nurses, 560 health officers and 136 midwives in 1923 in our country.

In this period, the following Laws, which are still in effect, were passed:

- Law no. 992 on Bacteriology and Chemical Laboratories (1927),
- Law no. 1219 on the Practice of Medicine and its Branches (1928)
- Law no. 1962 on Pharmaceuticals and Medical and Medical Preparations (1928),
- Law no. 1593 on General Hygiene (1930)
- Law no. 3153 on Radiology Radium and Electricity Treatment and Other Physiotherapy Facilities (1937)

Health policies of the Refik Saydam era were centered on the following four principles:

1. Central execution of the planning, programming and administration of the health care services,
2. Leaving preventive medicine to central administration and curative medicine to local administrations,
3. Improving the attraction of Medical Schools in order to meet health manpower demand, opening dormitories for the students of schools of medicine, establishing compulsory duty for medical school graduates,
4. Introducing control programs for communicable diseases such as malaria, syphilis, trachoma, tuberculosis and leprosy.

Under the light of these principles;

- Health care services have been conducted with the model of “single-purpose service in a wide area/ vertical organization”,

- “Preventive medicine” concept has been developed through legal regulations; the local administrations have been encouraged to open hospitals; and offices of government physicians have been established.

- Diagnosis and treatment centers have been established in district centers beginning from the places with high population (150 district centers in 1924 and in 20 district centers in 1936); physicians were banned from working independently.

- As a guide for the cities, Ankara, Diyarbakır, Erzurum, Sivas Numune Hospitals were opened in 1924; Haydarpaşa Hospital was opened in 1936; Trabzon Hospital was opened in 1946 and Adana Numune Hospital was opened in 1970.

Health Policies between the Years 1946 - 1960

“First Ten-Year National Health Plan”, which we will call the first health plan of the Republican Era of our country, was approved by the Higher Council of Health in 1946. This plan was announced by the Minister of Health, Behçet Uz, in 12 December 1946. However, before this work became a law, Behçet Uz left the MoH.

When Dr. Behçet Uz became the Minister of Health again in the government of Hasan Saka (10.8.1947/10.6.1948), the National Health Plan, which became a draft law in one and a half year, was negotiated and approved by the Cabinet and the four commissions of the Turkish Grand National Assembly. However it could not become a law due to the change in the government. The new Minister of Health, Dr. Kemali Bayazit, withdrew the plan.

Although National Health Plan and National Health Program could not be turned into a legal document or implemented in whole, majority of their ideas deeply influenced the health structuring of our country.

The inpatient treatment institutions, which were basically under the supervision of the local governments until that day, were started to be managed from the center.

National Health Plan, in the framework of the principle of bringing health organization to the villages and villagers, tried to establish a ten-bed health center for every group of 40 villages and provide curative medicine and preventive health care services together. Efforts were made to assign 2 physicians, a health official, a midwife and a visiting nurse to those centers along with village midwives and village health officers, who would work with groups of ten villages.

In 1945, there were 8 health centers; this increased to 22 in 1950, to 181 in 1955 and to 283 in 1960.

Under MoH, the Branch Management of Mother and Child Health was established in 1952. Collaboration and assistance was ensured from international organizations such as UNICEF and WHO, and a Mother and Child Health Development Center was established in Ankara in 1953.

In that period, child mortality rate was high, and also mortality caused by infections was high. This led to the intensive implementation of the policies for increasing the population. In this framework, significant progress was made in terms of health centers, delivery centers, infectious diseases centers and health human resources developments.

Average life expectancy at birth was 43.6 years in 1950-1955, 52.1 years in 1960-1965, 57.9 years in 1970-1975.

“National Health Program and the Studies on Health Bank” was declared by Dr. Behçet Uz in 8 December 1954. It was a continuation of the First Ten-Year National Health Plan and it became one of the foundation stones for the health planning and organization for our country.

National Health Plan divided the country into seven health regions, and considered establishing a school of medicine for each region and increasing the amount of physicians and other health staff (Ankara, Balıkesir, Erzurum, Diyarbakır, İzmir, Samsun, Seyhan). National Health Program foresaw a structuring composed of 16 health regions and the planning was done accordingly (Ankara, Antalya, Bursa, Diyarbakır, Elazığ, Erzurum, Eskişehir, İstanbul, İzmir, Konya, Sakarya, Samsun, Seyhan, Sivas, Trabzon, Van).

In order to establish human resources infrastructure, Ege University School of Medicine started accepting students in 1955 after İstanbul and Ankara Universities' Schools of Medicine. When the years 1950 and 1960 are compared, it is seen that the number of physicians increased from 3.020 to 8.214, nurses from 721 to 1658, midwives from 1.285 to 3.219. More than a 100 % increase was ensured for all 3 occupations in 10 years.

The number of hospitals and health centers also increased and in parallel with this the number of beds increased. The developments especially in the fields of child hospitals, delivery centers and tuberculosis hospitals were very affirmative.

While there were 14.581 beds in 118 MoH-affiliated institutions in 1950, there were 32.398 beds in 442 institutions in 1960. While those numbers were influenced by the centralization of the hospitals, which used to be under the local governments, when we look at the number of beds per a hundred thousand, we see that while there were 9 beds per a hundred thousand people in 1950, this ratio became 16.6 in 1960.

While there were such positive developments in the health institutions and the bed numbers, there were also positive improvements in the health indicators.

Tuberculosis-caused mortality decreased significantly in this period. There was also a similar positive change in infant mortality rate.

While the mortality rate caused by tuberculosis in cities and district centers in Turkey in 1946 was 150 per a hundred thousand, this was down to 52 per a hundred thousand in 1960.

Infant mortality rate was 233 per thousand in 1950, and this came down to 176 per thousand in 1960.

Both National Health Plan and National Health Program had aims such as insuring the public in return for a fee, meeting the costs of the uninsured people and the people who could not pay for treatment from a special administrative budget; establishing a health bank and financing the health expenditure from here; auditing the production of medical materials such as medicine, serum and vaccine; and establishing industrial institutions which would provide child food such as milk or infant formula.

In this framework, Biologic Control Laboratory was established in 1947 under Refik Saydam Hygiene Center Presidency, and a vaccine station entered into service. From that year onwards, intra-dermal BCG vaccine started to be produced. Whopping-cough vaccine was started to be produced in our country in 1948.

Again in the same framework, Workers' Insurances Administration (Social Insurances Agency) was established in 1946. Starting from 1952, health institutions and hospitals were opened for the insured workers. Works were also carried out in this period regarding the establishment of the Retirement Fund, thus the coverage of the social security started to expand.

In this period, legislation was also formed that set the legal infrastructure for the non-governmental organizations and some medical occupations:

- Law no. 6023 on the Turkish Medical Association (1953)
- Law no. 6197 on Pharmacists and Pharmacies (1953)
- Law no. 6283 on Nursing (1954)
- Law no. 6643 on Turkish Association of Pharmacists (1956)

Health Policies between the Years 1960-1980

Law no. 224 on the Socialization of the Health care Services was adopted in 1961. The socialization actually began in 1963. A widespread, continuous, graduated and provincially-integrated structure was adopted, and this structure had health posts, health centers, and province and district hospitals. Vertical organizations were partially reduced, and the structures that provided different health care services were integrated under the health posts.

Law no. 554 on Population Planning was adopted in 1965. Thereby, anti-natalist policy (population control) was adopted instead of pro-natalist (rising population) policy.

“Multi-dimensional service in narrow area” approach was adopted instead of the “single-purpose service in a wide area”.

While a draft law on Universal Health Insurance was prepared in 1967, it could not be sent to the Cabinet. In 1969, the 2nd Five-Year Development Plan foresaw the introduction of the Universal Health Insurance once again. In 1971, the Draft Law on Universal Health Insurance was sent to the Parliament but it was not adopted. In 1974, the draft was presented to the Parliament again but not discussed.

In 1978, “Law on the Principles of Healthcare personnel’s Full-Time Working” was adopted. The physicians in public sector were prohibited from setting up private practices. In 1980, this law was repealed with the “Law on the Compensations and Working Principles of the Healthcare personnel”, and the freedom of establishing private practices was re-introduced.

Health Policies between the Years 1980 – 2002

The 1982 Constitution includes provisions both regarding the citizens’ social security right and the State’s responsibility towards realizing this right. According to the 60th Article of the Constitution, “Everyone has a right to social security, and the State shall take the necessary measures and establish the necessary organization to provide this security”. Additionally, according to the 56th Article of the Constitution, “To ensure that everyone leads their lives in conditions of physical and mental health and to secure cooperation in terms of human and material resources through economy and increased efficiency, the State shall regulate central planning and functioning of the health care services. The State shall fulfill this task by utilizing and supervising the health care and social institutions both in the public and private sectors”. This article also includes a provision stating “Universal Health Insurance may be introduced by law.”

Basic Law no. 3359 on Health care Services” was adopted in 1987. However because the necessary regulation for the execution of this law was not made and some of its articles were repealed by the Constitutional Court, the law was not put into effect in full.

As the finance management in health gained importance, Universal Health Insurance came to the agenda once again in 1987. However, the legal regulations on this matter could not be realized and also in 1986 health benefits were introduced for the Bağ-Kur enrollees, thus a 3-headed structure emerged in public health insurance. The most significant outcome of this development was that three institutions had separate approaches and pricing systems for the same health care service. While some institutions covered the price of a certain service in their payment list, the others did not.

In 1990, State Planning Organization (SPO) prepared a basic plan on the health sector, and in line with this plan 1st National Health Congress was held in 1992. This “Master Plan Study on Health Sector”, which was executed by the MoH and SPO, is in a sense the beginning of health reforms.

The First and Second National Conferences on Health were held, and the theoretical studies on health reform gained acceleration. Green card practice was started in 1992 with the Law no. 3816 for the low income citizens, who did not have social security coverage. In this way, vulnerable people who did not have the economic means to access health care services gained limited health insurance coverage.

“National Health Policy”, prepared by MoH in 1993, included 5 main chapters, which were assistance, environmental health, lifestyle, provision of health care services and healthy Turkey.

In 1998, Universal Health Insurance was presented to the Parliament by the Cabinet under the name “Law on Personal Health Insurance System and Establishment and Operation of the Health Insurance Institution” but it did not become a law. In 2000, a draft law on the “Health Fund” was presented for the opinion of the ministries; however it had no conclusion either.

The main components of the Health Reform works conducted in 1990s were:

1. Establishment of a Universal Health Insurance by gathering the social security institutions under a single roof,
2. Development of the primary care services in the framework of family medicine,
3. Transformation of the hospitals into autonomous health facilities,
4. Providing MoH with a structure that plans and supervises the health care services and prioritizes preventive health care services.

Consequently, this was a period in which theoretical studies were conducted but not put into practice sufficiently.

2003 - 2010

According to WHO, the health care system of a country should be designed in a way to ensure the delivery of high-quality health care services for all people. This service should be effective, affordable and acceptable to the overall society. Each country is recommended to develop its own unique health care system taking those factors into consideration.

At the end of 2002, the status of the Turkish health care system made it necessary to undertake radical changes in many areas from service delivery to financing and from human power to information system. For this purpose, we have launched the Health Transformation Program in 2003. We have prepared this program by getting inspiration from past experiences, particularly the socialization of health care services, the recent works for health reform and the successful examples in the world.

It is certain that the program will seriously affect not only the present but also the future, and that it will be a significant milestone in achieving the objectives set in the field of health. MoH has shown its decisiveness for the implementation of this program and reaching the desired status in health, and has put many implementations into practice.

In this period, the steps facilitating the lives of our citizens are taken with courage and determination. In this understanding, the hospitals of other public institutions, including those of SSK (Social Insurances Agency), were transferred to the MoH.

The coverage of Green Card has been widened for low-income groups.

The health care services and pharmaceutical expenses of the Green Card holders within the scope of “outpatient services” are also covered by the state now.

The VAT of the pharmaceuticals has been reduced, and the medicine pricing system has been changed. In this way, a big discount has been made in pharmaceuticals’ prices. The burden of pharmaceutical expenses both on the public and on the citizens was reduced a lot. Those arrangements have played an important role in spreading the access to pharmaceuticals.

“112 Emergency Health Care Services” are delivered not only in cities but also in villages. The numbers of stations are increased and the ambulances are equipped with the state-of-art technology. Sea and air transportation vehicles are added to the system.

Primary care services, particularly preventive health care and mother-child health care services, are strengthened; and Family Medicine implementation, which is an element of modern health understanding, has been introduced and spread out to the whole country.

In terms of infant mortality rate; in the last eight years our country has managed to achieve the progress, which was achieved in 30 years by the developed countries. The same success was also achieved in maternal mortality rate, and again the progress made in 23 years by the OECD countries in terms of maternal mortality was achieved in the last eight years by our country.

Comprehensive programs have been implemented to prevent ill-health and premature deaths associated with non-communicable diseases. In this scope, national programs have been planned and implemented for certain diseases such as cardiovascular diseases, cancer, diabetes, chronic respiratory track diseases, stroke, and kidney failures.

Our indicators for communicable diseases have reached the level of the developed countries after the commencement of the Health Transformation Program.

The regions lacking building, equipment or healthcare personnel have been accepted as priority areas and the imbalances of this sort have largely been eliminated. In the last eight years, a total of 1.893 new health facilities including 509 independent hospitals and new hospital buildings were put into service. In the same period, the number of personnel working in the public health institutions has increased by 191 thousand people and reached 447 thousand people with service procurements.

A large-scale transformation program appreciated by the world has been implemented for the last eight years. Despite that while the increase in the overall primary public expenditure was 218% in 2003-2010; the increase in the public health expenditure was only 184%. Public resources have started to be used efficiently with the Health Transformation Program. Eventually, financial sustainability has been ensured with the medium term financial plan covering the years 2010, 2011 and 2012.

The actions are so widespread and effective that they foretell what will and can be done from now on. In 2003, the level of satisfaction with health care services was 39.5%, and this figure reached 73.1% in 2010. As a result of this satisfaction, our people have started to demand better service and their trust and expectations have risen. It is necessary to complete the ongoing services and undertake new enterprises in order to meet these expectations. We have the determination, decisiveness and experience to make this happen.



ANATOMY OF THE HEALTH TRANSFORMATION PROGRAM

Health is the most fundamental building block for our lives. It is the constant denominator in every breath we take, in every step we take and in whole life. In fact all variables of life are hidden in this basic structure. Every detail we experience in a lifetime is calculated according to this constant denominator.

Since health is a birthright, health care services should be organized in ensuring equitable access for everyone. In line with the principles of justice and equity, all people should be provided with health assurance; no distinction such as gender, social status or social class should prevent the utilization of health care services; health care services should be easy to access; the health care services delivered should be modern and effective.

According to WHO, the health care system of a country should be designed so as to ensure the delivery of the high-quality health care services all people need. This service should be effective, affordable and acceptable by the society. It is recommended that every country develop its own unique health care system by taking those factors into consideration. While establishing its unique system, each country should also initiate its own constant transformation process.

New ideas are constantly emerging in the world with respect to the Health Transformation Programs. However, it is accepted that getting health transformation right is a truly complex social phenomenon.

Reasons that Render the Health Transformation Program Essential:

1. Cost Increases in the Delivery of Health Care Services:

Today, many countries face a gap between the funds they can allocate for health care services and the level they want to attain in health sector. As the economies progress, the expectations continue to grow, the countries become more democratic, and media-based images spread around the world. The costs of health care services increase in almost all countries depending on the changing demographical characteristics, developing diseases patterns and the new technology.

2. Increased Demands of the Citizens:

People want to stay young and healthy as long as possible and benefit more from health care services. Health care system in many countries is under increased pressure for achieving those goals.

As countries develop, their citizens want to spend more for health. Those increasing expectations necessitate the use of more numerous and more costly services both for care and treatment. Global and social developments (films, television and internet etc.) increase those demands. Increased expectations have caused patients to ask for the most recent and best service, state-of-the-art technology and the medicines.

Knowing that such facilities exist in other places, people have become more skeptical about the quality of service in their local health centers or smaller hospitals. People have started to prefer the regional centers and university hospitals although their health conditions do not require that.

3. Limited Payment Capacity of the Public:

Governments are under pressure to meet the emerging demand created by increased costs and expectations. Although economic growth means that more financing will be supplied for health care services generally the costs and demand in the health sector grow faster. At the same time, the service providers in the health care service system struggle to maintain their income. Ultimately, the economic processes intersect with the political pressures and affect the amount of funds a country decides to allocate for health.

4. Citizens Have Started to Question the Understanding of Management in the Public Sector:

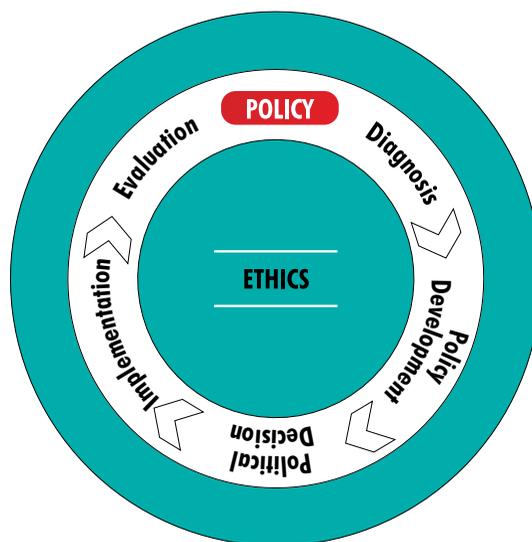
Poor management in public, inadequate policies and the waste of limited sources have created skepticism about the public sector. Now the citizens analyze it more when the public sector delivers unsatisfactory service. Factors such as democratization, the increased number of non-governmental organizations, media, and internet cause the citizens to question the understanding of management in the public sector.

Health Policy Cycle

The Health Transformation Program is built on the moral understanding that aims at enabling all citizens' access to health care services in an equitable manner as the equal citizens of the country.

While making the political and methodological preparations of the program; a gradual, continuous policy cycle is designed that will ensure the sound operation of the transformation process of the health policies. According to that, first the problems are defined; the conditions providing the basis for those problems are analyzed; policies are developed for solving the problem; political decisions are made to implement those policies and then those decisions are implemented. After that, the outcomes of those policies, which are implemented within the ethical framework, are assessed.

The transformation process can be defined with the following cycle:



Health Policy Cycle

A-Diagnosis:

One of the most important steps ignored while implementing the health transformation programs is the definition of the problem. How are the problems perceived? What are the social processes shaping them? Which factors determine the problem-definition of the transformation programmers? What are the perspectives of the interest groups with respect to problem-definition and solution suggestions?

Some health sector planners argue that the only thing required for defining the problems is good data. However, this data cannot fully define the problems and priorities of the health reform single-handedly. Any political decision should be based on both science and ethics. For example, in many countries women live longer than men. Whether this fact represents an inequality of the public policy which needs fixing cannot be identified just with data.

Data ensures that the discussion is carried out in a more honest manner. For this reason, the people responsible for the transformation program have a significant responsibility in understanding what is important for transformation. Otherwise, the ideology and the interest groups will dominate and shape the discussion.

One of the important uses of the data in the process of problem-definition is the benchmarking. Benchmarking in health sector reform means that a country looks at the countries, which have similar levels of income and expenditure and high health performance. Despite the differences between countries, the international comparisons can be a useful starting point for discussing the performance problems.

While defining the problems, four factors that can affect the content and implementation of the transformation program policies should be taken into account:

- **Stakeholders:** The cluster of people or groups that are included in the reform process or that can discuss the fate of the policy.
- **Power:** The relative power of each player in the political game (according to the means of each player).
- **Position:** The player's power to support or reject the policy and the amount of resources the player can spend for this.
- **Perception:** The private and public perception of the definitions of the problem and solution.

The problems should be defined by focusing on the three objectives of the health system performance:

- *Health indicators*
- *Protecting the citizens from financial risks*
- *Health care users' satisfaction with the delivered health care services*

After problems are defined by focusing on the health care system performance, it becomes necessary to make a diagnosis journey for the health transformation programs, just like a physician moves from the symptoms to the causes.

With respect to diagnosis, the fundamental strategy is "Work backwards". One keeps asking "why" until one has discovered the causes of the poor performance one wants to improve. This is not a simple task. A famous quality development specialist says that one needs to "ask 'why' for five times" in order to find the underlying causes of the diagnosis process that lie behind, beyond and under what is visible. It is necessary to study the depths in order to understand why the system behaves in a certain manner.

One tries to identify the causes of the unsuccessful results for diagnosis. This is done by examining the five control knobs of the health sector.

Five control knobs of the health sector are;

- ✓ Financing,
- ✓ Payment,
- ✓ Organization,
- ✓ Regulation,
- ✓ Behavior.

Those five knobs cover the mechanisms and processes that need to be adjusted for improving the system performance of the transformation programmers. Our diagnosis regarding the five critical control knobs also reveal the factors that determine the outcomes of the health care system and that can be used to change them.

Five Control Knobs Used in Health Transformation Program:

1-Financing:

It means all the mechanisms, which ensure the collection of money that is paid for health sector activities.

Financing has a very significant impact on the performance of a health care system. It determines:

- ✓ how much money is usable,
- ✓ who undertakes the financial burden,
- ✓ who controls the funds,
- ✓ how the risks are pooled, and
- ✓ whether the costs of the health care services are controllable.

Those factors help determine:

- ✓ who has access to service,
- ✓ who has protection against impoverishment due to catastrophic health expenditures and
- ✓ the health status of the population.

There is no magical solution for the financing problems. All funds collected through any financing method come directly or indirectly from the citizens. The issue that every country has to make a decision on is which sources to use and to what extent they will be used.

Some specific suggestions based on political and economic theories should be taken into consideration in the light of the international experience in order to adjust the financing control knob in the most effective manner:

- Poverty constitutes a basic financial limitation by itself. Poor households may not be able to afford the health care services. If they are to have access to services, then the government should support them. If the goal is to assure equity, then the public expenditure should target the poor (this is not the case in many lower and middle-income countries at the moment).
- Special financing programs should be developed for the poor people living in rural areas.

Such programs enable us to use the existing expenditure in a more effective and efficient manner. In this way, we can increase the quality of health care services and decrease the impoverishment due to medical expenditure.

- As long as sufficient funds are collected, social insurance programs protect people from the financial risk at a high level. As the national income increases, the governments can enlarge this scope by providing assistance from the general tax revenues.
- If the social insurances cover the services that are not covered by the private insurances, then the private insurances can play a complementary role for social insurance towards the aims of providing better service quality.
- If a country wants its resource allocation to be cost-effective while maximizing its health status, then it should support the primary and preventive health care services with taxes.

Issues to be Considered While Choosing the Financing Strategy:

- **Socioeconomic development:**

A country's capacity to mobilize its funds is largely in correlation with its income per capita. The income determines the households' payment capacity and demand for health care services. Other important factors are tax revenues, the number of the employed people and the amount of poor households.

- **Financial capacity:**

The key question for a financing strategy is this: Is it possible to mobilize sufficient amount of money to meet the desired level of spending in the health sector? How much will be cut from the other sectors in order increase health sector spending? Therefore, it is necessary to match the financing strategy with the objectives. While discussing the sustainability of health financing system, this topic should be at the focus point.

- **Feasibility:**

The key aspect of feasibility is the administrative capacity of a country. Does the country have the necessary administrative systems and the human resources for effectively implementing a financing program? Feasibility also depends on the social acceptability of a financing program. Voluntary compliance levels differ widely both within the country and at the international level. The chances of success are much higher for the use of programs that are considered legitimate by the public.

- **Political Accountability:**

The decisions regarding how and where to spend the money in democracies are the main testimony to the government's power. When considered from the perspective of the democratic politics, the citizens should be allowed to have proper control over the process. Certain features of the financing system affect this accountability. Is any person that has authority over the financing process subject to election through a democratic process? If this person is an assigned bureaucrat, then does he have any accountability (such as to the administrative courts)?

- **Equity:**

Since financing directly affects the distribution of the costs of health care services, the party that will undertake the financial burden is important. Since the use of funds directly affects the distribution of health care services, the party benefiting from the services is important. There are two dimensions to the assessment of the distribution of burden and benefit.

1. Vertical equity: Distribution of burden between the rich and the poor.
2. Horizontal equity: Justice amongst the ones at the same income level.

- **Risk Pooling:**

The costs of health care services are not distributed equally in the community. Cancer affects some people and does not affect other people. The elder people experience more disease and disability conditions in comparison to the young. The people with diabetes need health care services more frequently. The uncertainty of the disease necessitates the formation of a financing strategy where the risks can be pooled.

- ✓ Mandatory social insurance coverage can provide risk pooling as long as it is universal.
- ✓ Private group insurance covers only a group of health risks.
- ✓ The out-of-the-pocket payments of the patients also provide risk pooling.

- **Economic Impacts:**

Different options have different impacts on promoting or discouraging the investments, employment opportunities and labor supply. Therefore they will affect the level of the economic activities in the short and long term.

2-Payment:

Fees mean the methods that are used for transferring the money such as capitation payments and budget to the health care service providers. First of all, it should be noted that no payment method is perfect (every payment methods has its own negative and positive aspects).

Although countries differ in terms of their health care system objectives and conditions, international experiences draw attention to the five critical lessons regarding the payment control knob:

- Decisions regarding the payment method should be assessed within the context of the way the system is organized, and the organization and payment should complete each other.
- Fee-for-service promotes the increase of the costs of health care services. The countries should avoid this method unless they have important reasons to do otherwise.
- The method of basic salary + bonus payment is superior only to salary payment system. The method of basic salary + bonus payment can motivate health professionals to increase efficiency and service quality. This advantage is valid especially for the specialists.
- The method of capitation payment for primary care services can support the transformation program.
- Payment based on Diagnosis Related Groups (DRGs) in high and middle-income countries has desirable incentive effects.

3-Organization:

It means the roles and functions of service providers and the mechanisms they use in health care service markets.

The transformation programmer, who wants to implement the organization control knob, should focus on four main features of the system:

- The mix of the organizations providing health care services
- The division of activities amongst those organizations
- The relationships amongst those organizations and their relations with the political and economic systems
- The administrative structures of those organizations

We should examine the “Six Keys of the Organizational Performance” in order to understand how restructuring will influence the performance of the transformation program:

- **Incentives for Organization:**

- ✓ What should the organization do in order to obtain the resources it needs for its survival and growth?
- ✓ What kind of limitations or opportunities might come from the competitors, users, regulators and the ones that prepare the budget?

Powerful performance-based incentives should be established for effective transformation programs. Financing can be linked to performance with a couple of ways. For example, the budgets might differ based on the quality and amount of the services provided. Incentives can also be given to the regions or institutions that have better performance.

- **Incentives for Managers:**

- ✓ How are the managers rewarded or sanctioned?
- ✓ How does this relate to the institutional performance?
- ✓ Which channels of reporting, audit and accountability exist?
- ✓ What is the potential career path outside the existing organizations?

Effective transformation programs provide powerful incentives for the managers towards increased performance. The managers should be chosen, supported and paid based on their skills and managerial performances. Reporting and audit systems that establish real accountability should be prepared.

- **Skills and Attitudes of the Managers:**

- ✓ What are the contributions of the managers to their works in terms of skills and attitudes?
- ✓ How are their selections, trainings and work experiences shaped?
- ✓ How do the managers perceive their works? What are their opinions of their responsibilities?

In order to carry out an effective transformation program, entrepreneurship and social responsibility that can improve transformation should be constituted among the managers. In addition, manager training programs can be taken as a precondition for certain jobs.

- **Authority of the Managers:**

- ✓ What kind of decisions can managers make on topics such as prices, manufacturing processes, procurement, personnel?
- ✓ Can they hire or fire staff?
- ✓ Can they make investment decisions, or choose strategy?

The managers should have authority with respect to personnel, procurement and other important subjects.

- **Incentives for Employees:**

- ✓ To what extent do the rewards given to employees vary according to their performances or the institutional performance?
- ✓ What defines the payments to be made to the employees and their promotions?
- ✓ Is there any non-monetary incentive?

The former personnel management system and the weak incentives established by it should be taken into account.

Personnel management systems should be changed in a way that will reward the performance and limit the political influence and protection.

- **Skills and Attitudes of the Employees:**

- ✓ What are the contributions of the employees to their works in terms of skills and attitudes?
- ✓ How are their selections, trainings and work experiences shaped?
- ✓ To what extent are the employees determined about the organization's success?

The practitioners of the transformation program often ignore the skills and attitudes of the employee. This mistake should be avoided. Recruitment structures, training systems and the personnel practices should be revised.

4-Regulation:

It means the sanctions made by the state in order to change the behaviors of the actors in the health care system such as service providers, insurance companies and patients.

Types of Regulations within the Health Sector:

A- Regulating the Health Care Services Sector

B- Regulating the Health Insurance System

A- Regulating the Health Care Services Sector:

A.1-Providing the Basic Conditions So That the Health Care Services Sector Can Function:

- Defining and protecting the private property rights and patents
- Managing the financial status of the health care service institutions
- Protecting patient rights

A.2-Providing The Things That Private Sector Cannot Do (For Equitable Access):

- Subjecting the physicians to mandatory service when necessary
- Supplying the urgent care rights of the patients

A.3-Correcting the Failures of the Health Care Services Sector:

- ***Handling the External Impacts***
 - Providing free-of-charge or support programs directly by the government (vaccination and health education etc.)
- ***Helping Citizens for Making Conscious Choices***
 - Regulating the accurate advertisement
 - Advertisement limitation for the physicians
- ***Protecting Citizens from Unqualified Service***
 - Regulating the inputs
 - ✓ Standards on the control and use of pharmaceuticals and food hygiene (including herbal medicines)
 - ✓ Regulating the undergraduate education of the physicians, nurses and pharmacists
 - ✓ Accreditation of laboratories and hospitals
 - Regulating the process
 - ✓ Implementing the clinical guidelines
 - ✓ Patient feedbacks
 - Regulating the outputs
 - ✓ Setting standards for all kinds of medical reports
 - ✓ Building clinical supervision systems
 - ✓ Ensuring that the problems deriving from the execution of health professions are regulated by the state rather than professional associations
 - ✓ Malpractice responsibility
- ***Regulating the Demand of Health Care Service Providers***
 - Regulating the labor force
 - ✓ Meeting the shortage of physicians and nurses
 - ✓ Encouraging the graduates of the foreign schools of medicine
 - Regulating the capital investment
 - ✓ Encouraging new technologies and the construction of new facilities
 - ✓ Controlling the importation of equipment

- **Objecting Monopoly**
 - Preventing monopolization of public or private sector in health care service delivery
 - Regulating the monopolistic prices
 - Defining the user fees for public and private health facilities
 - ✓ Defining reference prices for pharmaceuticals

A.4- Regulating the Issues That Cannot Be Left to the Private Sector Understanding:

- Tobacco sales
- Blood transfusion
- Organ transplantation
- Abortion
- Drug abuse
- Euthanasia

B- Regulating the Health Insurance System

1-Defining Basic Conditions for Private Health Sector:

- *Financial arrangements for private insurance companies*
- *Sales and marketing practices of private insurance companies*

2-Regulations that Cannot Be Made By Private Health Sector (Equitable Distribution):

- Risk Pooling
 - *Making it mandatory for the insurance scheme to define the premiums on a community basis.*
 - *Ensuring that the households that have the ability to pay are included in the insurance schemes.*
 - ✓ *Equity in Financing and Benefits*

Premium based on the percentage of salaries in social insurance.

3-Correcting Health Sector Failures:

- Risk Selection: Private insurances exercise risk pooling in order to insure the healthy people and reject the less healthy people.
- Adverse Selection: Mandatory insurance is used to discourage adverse selection and pool the risks amongst the elderly and the young, the healthy and the less healthy.
- Monopolistic pricing: Paying a minimum premium to benefit from the health care services.

4-Correcting the Unacceptable Risk in Health Sector:

- Uninsured People

Obliging all population to be included in the social insurance.

- Cost-Effectiveness

Regulating the benefits package of the mandatory insurance.

5-Behavior:

It explains how the patient and service providers behave in relation to health and health care services.

Health system performance and health status are affected from the individual behavior in many ways. Whether the patients take their medication regularly affects the success of the tuberculosis control programs. Vaccinations affect the newborn mortality. The physicians' habits of prescribing antibiotics affect the development of microbial resistance. Drivers' habits and the use of seat belts affect the case fatality in traffic accidents. In brief, the individual behavior can have significant impacts both on the individual's health and on the health system performance. On the other hand, the behavior has its roots in the culture, social structure, habits, belief, attitudes and opinions.

Where can the behavior change knob be used within the scope of the health transformation programs? It is important to consider four individual behavior categories here:

1. Health seeking behaviors
2. Behaviors of health professionals
3. Patients' compliance behaviors
4. Lifestyles and behaviors protecting from diseases

1. Health Seeking Behaviors:

The citizens' decisions about when, where and how to get treatment are an important field with respect to improving health system performance. Among the decisions that are related to the health seeking behavior are the type of the service provider (for example specialist vs. general practitioner), the level of the health facility (for example primary care facility vs. university hospital), treatment time, treatment place and the use of herbal medicines vs. chemical medicines.

2. Behaviors of Health Professionals:

Among the important behaviors of the health professionals are the treatment composition, focus on the preventive care, treatment location (public hospital vs. private practices of the service providers) and patient referral.

3. Patients' Compliance Behaviors:

It covers the topic of whether the patients comply with the treatment instructions given to them. Among the behaviors in this category are the use of pharmaceuticals, the execution of referral order and the treatment follow-up.

Many strategies aiming at changing the patients' compliance behavior are related to pharmaceuticals.

Examples of the behavioral change strategies in this field include the efforts made for encouraging patients to take their antibiotics properly (here the aim is to decrease the development of antimicrobial resistance) and encouraging the patients with chronic conditions to take their medication regularly and on time.

In some cases, the behavioral change strategies for ensuring compliance can be implemented with the direct correction of the individual behavior. Such practice exists in Directly Observed Therapy (DOT) for tuberculosis cases. In DOT, the health professional observe how the patients take their medication and thus they make sure that the right drug combination is taken at the right time. The behavioral change strategies are also implemented for convincing mothers to breastfeed.

4. Lifestyles and Behaviors Preventing Diseases:

They are the decisions made by citizens with respect to their lifestyles and habits, which have significant impacts in preventing diseases. This category includes the individual decisions such as food consumption, tobacco consumption, and the use of contraceptives. Different behavioral change approaches should be used concomitantly so that the health transformation programs can be efficient. It is necessary to seek the ways of integrating new concepts into the existing values.

The approaches that are implemented to change individual behavior vary from less compelling approaches such as only briefing to very compelling precautions such as prohibitions.

The following four ways should be followed in order to be able to use the data, which we obtain by studying the five control knobs of the health sector, efficiently:

- **Know the Literature:**

It gradually becomes easier to reach up-to-date information via international publications and internet. Take time to identify the relevant literature and to get familiar with it. There is no chance that you are the first person that faces the problems you are trying to solve or that thinks about the questions.

- **Get Suggestions:**

There is national and international specialty such as WHO, OECD, which can help you in reviewing the literature and the experiences of the other countries. However, be skeptical about the suggestions. Particularly about the suggestions coming the ones that have something to sell (for example a costly computer program).

- **Make Rapid Assessments:**

Many questions do not necessitate an important research project. There might be rapid and cheap methods to obtain reliable estimates on an important matter. Those estimates can be sufficient to attain political goals.

- **Support Good Researches:**

Problems might occur in low-quality studies and assessments. Reliable studies provide reliable evidences. If there are a lot of topics then making mistakes would be more costly. Most low and middle-income countries make insufficient investment in health care system studies. However since those studies require time, planning and resources, they should be carried out if you really need the data.

Consequently, for a good diagnosis the health transformation team should be well-prepared, curious, attentive and eager to learn from experience.

The team implementing the Health Transformation Program should do the following four things while passing from the diagnosis stage to policy development stage:

- **Keep asking “why” until you define the variables that can be manipulated:**

In health sector, diagnosis moves from the performance values of critical objectives to what generates those outcomes. This process is not always clear. Policies can cause unintended outcomes and they can be mismanaged. Individuals might claim that they have done one thing and they might be doing something else in practice. There is need for a clear and skeptical mind and generally high-level of energy and curiosity.

- **Do not jump at conclusions:**

Defining the problem at an early stage depending on ideologies or prejudices is attractive. Unfortunately, bypassing the diagnosis process is not a rare situation. Identifying a wrong reason might lead to poorly-designed policies. This will not only misdirect the energy and lose an opportunity but also damage the reliability of transformation.

- **Be scientific not judgmental:**

If the agencies or institutions act in a way that we do not approve we will be inclined to decide that they are the problems. Therefore it is important to stay neutral during the diagnosis process. There is need for a clear and skeptical analysis here.

- **Use figures:**

It is not possible to reduce everything important to figures for implementing the health transformation program. In fact it is not possible for an analyst to have all the good-quality data he or she might want. Also it is not possible to ignore the problems that cannot be documented with figures. For instance we might not be able to get any data from the poorest and ill-conditioned areas.

Despite all these facts, data can be very useful. Data can be a control point for the prejudices and the premature decisions. Data can help support a scientific attitude. In order to use data wisely, the transformation programmers should know where the data comes from, the limitations of data, the point skipped and the assumptions.

B-Policy Development:

The definition of problems is followed by the development of policies that can overcome those problems in transformation programs. In fact while the policies studied have a wide variety, they are also universal because essentially they focus on overcoming the problems and attaining the defined targets. Within the framework of this universality each society develops its own policies by considering its own conditions. International experience is assessed and successful examples are adapted to the country conditions. One should be prudent against the ideological approaches and the implementations that emphasize individual or group interests. The political, economic and cultural realities of the country are always taken into consideration. Possible implementation problems (pertaining to resources, potentials and administrative law) are taken into account.

While developing policy within the framework of Turkey's Health Transformation Program, the priority was the human centered/anthropocentric approach along with the concepts of access, quality, equity and efficiency.

Here is the Basic Principles Used in Policy Development:

- **Human-centeredness / Anthropocentrism:** This principle means focusing on the individual that benefit from the service, individual's needs, requests and expectations while planning the system and delivering service. Moving from the fact that health is generated in the family environment, the individual is considered within the framework of the "family health" concept.
- **Sustainability:** It means the principle that the system to be developed complies with the country conditions and resources and presents continuity by feeding itself.
- **Continuous quality improvement:** It means the continuous search for the better and the establishment of a feedback mechanism that will ensure learning from mistakes by assessing the system considering that the point reached in service delivery and outcomes is not sufficient.
- **Participation:** It means getting the opinions and suggestions of all relevant parties while developing and implementing the system and establishing the platforms that will ensure a constructive discussion environment. In addition, this principle aims at ensuring the uniformity of resources in implementation by including all components of the health sector in the system.
- **Reconciliation:** It means the search for common grounds by looking after mutual interest among the different sections of the sector as a requirement of the democratic management. The aim is ensuring uniformity in methods, standards and audit mechanisms and the parties' compliance with this instead of an implementation that is based on conflict of interest.
- **Volunteerism:** It is the method of ensuring that all units to be included in the system act towards defined goals without discriminating between the service provider and service receiver or between the individual and institution. The service generating and service receiving parties within the system should participate on a voluntary basis in line with incentive precautions, not on a mandatory basis.

- **Separation of powers:** This is the principle of separation of powers that finance, plan, audit and generate the health care services. In this way there will not be a conflict of interest, and a more efficient and more qualified service delivery will be ensured.
- **Decentralization:** The institutions should be saved from the cumbersome structure established by the centralized management. The aim is to implement the decentralized management in line with the changing condition and the modern understanding. Institutions that have administrative and financial autonomy will have quick decision-making mechanisms and be able to use resources in a more efficient manner.
- **Competitiveness in service:** This is the principle of de-monopolizing the health care service delivery and ensuring competitiveness amongst different service providers according to certain standards. Thus there will be an incentive environment for continuous quality improvement and cost reduction.

C-Political Decision:

Health sector reform policy has certain systematic features which turns this policy into a difficult process (which makes it more difficult than all other types of policy reform):

- **Technical Complexity/ Difficulty:**

It is not easy to regulate the health sector. Many pieces are interrelated and many outcomes (both intended and unintended) might occur. Designing a comprehensive Health Transformation Program is a complex technical process because health reformers turn the five control knobs in different directions. Transformation programmers generally try to design many pieces of the system at the same time, and this makes it difficult for non-specialists to understand the program's details and overall impact. Political problems might occur because of the impact of the technical problems on the sector and their complexity for the public perception.

- **Changes in the Financial Status of the Well-Organized Groups:**

The efforts towards the Health Transformation Program generally cause undesirable costs to the powerful groups such as physicians or the pharmaceuticals industry. The groups might try to form political obstacles against transformation in order to protect group interests.

- **Expenditure Made for Non-Organized Groups:**

The health transformation programs generally try to focus the new benefits on the disadvantaged groups (for example the poor or the rural inhabitants). Those groups are generally not well-organized and they have a few political connections. Moreover those changes do not result in the same benefit for every individual. The costs distributed amongst the low-income groups can make it difficult to mobilize the political support.

- **The Roles of the Government Actors other than MoH in the Transformation Program:**

- ✓ Ministry of Finance (MoF): particularly if the reform includes changes in health services financing and MoH budget,
- ✓ Social Security Institution (SSI): if the reform proposal includes changes in health care services delivery and reorganization of the public health facilities,
- ✓ Ministry of Economy or Planning: if the reform proposal includes decisions regarding overall economic growth or debt forgiveness,
- ✓ Ministry of National Education: if there are policies affecting the school health policies and schools of medicine,
- ✓ Ministry of Agriculture and Rural Affairs (MARA): if zoonotic diseases, tobacco, herbal medicines etc. are relevant,
- ✓ Industry and Commerce: Patent, market surveillance audit, medical technology policies etc.
- ✓ Local or Regional Administrations: if the reform proposal includes decentralization.

Acceptance of transformation in the health sector is not only related to the political will, it is also an issue of forming an effective political strategy. Acceptance of a reform proposal depends on the parties' willingness, interest, skills and the political strategies they used. The standing of the authority, the political power behind the implementation makes it easy for the practitioners and the people affected by the transformation to adopt the transformation. Particularly the supports of the government heads are very important. Within the scope of the Health Transformation Program, HE Prime Minister has stood behind the political decision and this has had a significant impact on implementing many profound changes and attaining achievement on those.

D-Implementation:

The implementation of the Health Transformation Program includes organization tasks:

- Development of the implementation plan,
- Gathering a team to realize the plan and assigning tasks to them,
- Development and coordination of the programs,
- Motivation of the implementers,
- Providing feedback.

We have to be attentive to the holistic approach in every step to be taken for transformation.

We have to develop the policy and the program by taking all actors of the health care system into account and by seeing the whole picture. Implementing the Health Transformation Program requires basically four stages each related to a component.

1. Conceptualization

The first stage is the “conceptualization”. The aims, principles, development and implementation process related to the program are presented conceptually and clarified and developed after discussions with the national and international experts of the topic.

2. Enactment

In parallel with conceptualization, the second phase to follow is the “enactment” process. Necessary arrangements are made in the fields that have acquired conceptual clarity and that need legislation (such as law, implementing regulation, and cabinet decision).

3. Controlled Local Implementations

It is known that implementing the program as a package is not a realistic approach. At this stage, limited and controlled implementations are made for some innovations and improvements, which have been formed within the framework of the program before they are rolled-out to the country.

4. Dissemination in the Country

The fourth stage is the transition to countrywide implementation. Naturally it might not be necessary to experience those four stages for all components. All stages of each component do not need to happen at the same periods of time. Some parts proceed without waiting for others and some parts needs to wait for others.

E- Evaluation:

Evaluation of a new program cannot wait until this program is fully implemented. Data should be collected before the implementation for baseline, and administrative systems should be established for evaluation.

The easiest evaluation approach is the comparison of the before and after. Evaluation based on evidence should be made, and data suitable for this should be collected. Data should be standardized beforehand and should be collected as necessary. Unnecessary and unorganized data causes information pollution. Data collection method and data diversity should be as plain as possible not to harm the continuity. The gathered data should definitely be evaluated and used for the continuation of the policy.

The basis of evaluation is the aims of the Health Transformation Program.

The aims of the Health Transformation Program are to organize, finance and deliver the health care services in an effective, efficient and equitable manner.

Effectiveness means the aim of improving the health status of the public by the policies to be implemented. The biggest goal in health care service delivery should be preventing human from getting sick instead of treating patients. Achievement of this goal will be indicated by the progress to be made in epidemiological indicators. Decreased maternal and infant mortality and increased life expectancy at birth are the most concrete evidences of this achievement.

Efficiency means decreasing costs by the proper use of resources and generating more service with the same resources. The distribution of human resources, materials management, rational drug use, health management and preventive medicine practices should be assessed in the framework of this principle. Including all sector sources of the country within the system and ensuring their integration will increase efficiency.

Equity means ensuring that all public have access to health care services as per their needs and that they contribute to the service financing as per their financial means. Reducing discrepancies in terms of access to health care services and health indicators among different social groups, in rural and urban areas and in the east and west is included within the objectives of equity.

The assessments of the implementations that are carried out in accordance with the aims of the Health Transformation Program are measured by three performance targets:

1. Improvements in health indicators

The health status of the society is our first performance target. The analysis of health indicators should be made according to other countries and previous years. Those figures set the analytical basis of the health policies.

2. Protection of citizens from financial risks

This is an important objective of the health sector policies and a significant focus point of the health reform policies. This protection refers to the assurance that the individual can get treatment without experiencing financial difficulties when the he or she gets sick. There should be assurance that no disease will affect the patient or family or their daily lives and put them under impoverishing burden. Such assurances can be brought forth under different models. This protection is affected substantially by the way the health sector is financed.

The scope of protection from risk can be drawn by considering the objectives such as providing that individuals can receive sufficient service regardless of their financial constraints and compensating them against any possible financial losses due to malpractices.

3. Satisfaction with health care services

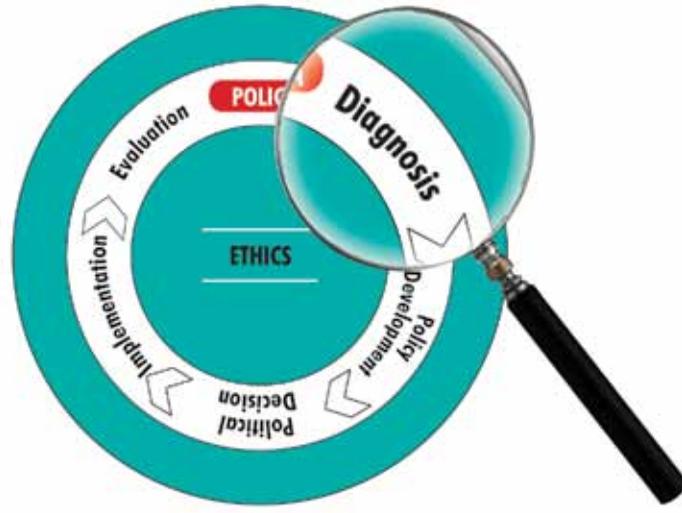
This means the health care users' level of satisfaction with the services delivered to him or her by the health sector. In fact, it is widely accepted that health service cannot show its effectiveness or quality by itself. However, it is not possible for a system, which does not focus on the patient or reply to his or her expectations, to get results. If the citizens admire and accept the services, this will ensure their participation in the process and obtaining results more rapidly. Therefore, policy is developed by accepting satisfaction as one of the main criteria and by taking into account how citizens assess the health services delivered.

In those assessments, issues such as the waiting times of the service receivers at the institutions they apply, the levels of complexity of the hospital procedures and processes, the time allocated for patients and patient information are taken into account.

TURKEY'S HEALTH TRANSFORMATION PROGRAM



A. DIAGNOSIS

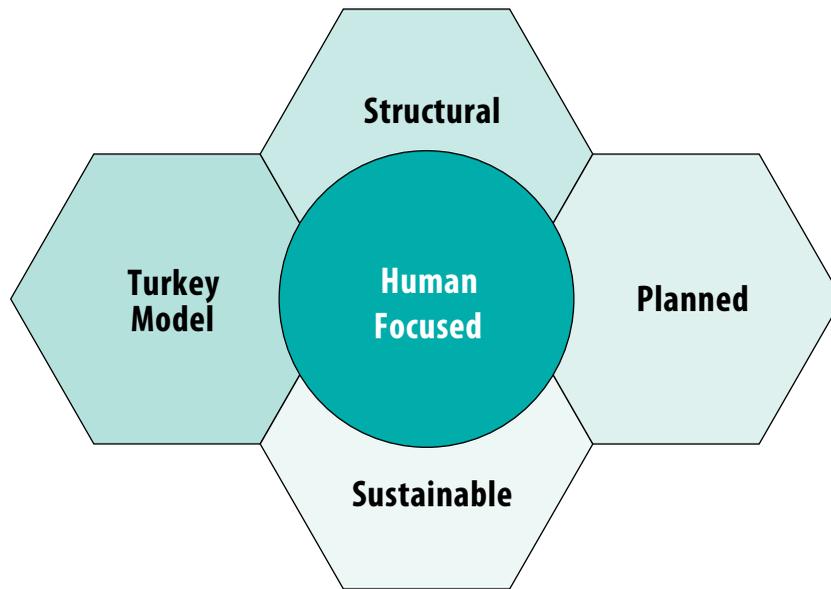


At the end of 2002, the status of the Turkish health care system made it necessary to undertake radical changes in many areas from service delivery to financing and from human power to information system.

If a country aims at improving its health care systems, the first thing to do is to sustain the support of the political authority in that country. The financial and social aspects should also be taken into account. It should also be known that many interest groups will stand in the way of reform conditionally. It is essential to have a prime minister, a president, a cabinet, an assembly that stands by you, supports you and encourages you. Otherwise success cannot be achieved. The Health Transformation Program in Turkey is formulated based on this fact. Another aspect of the issue, which is as important as this one, is the fact that health professionals work with humanity believing the necessity and spirit of this transformation.

Moving from those basic facts, we put the Health Transformation Program into practice in 2003. We have prepared this program by getting inspiration from past experiences, particularly the socialization of health services, the recent works for health reform and the successful examples in the world. We have assessed all the steps taken in health since the foundation of the Republic, we have reviewed the project works implemented within the Ministry and embraced the positive inheritance of the past.

We have prepared the “Health Transformation Program” considering the global developments, in compliance with the socioeconomic realities of our country, as a structural, planned and sustainable model of Turkey.



We have established the program on the basis of moral approach aiming to ensure all citizens to access to health services on an equitable basis, as the people of the country with equal rights.

1. Financing:

- There was a multiple and fragmented health finance system.
- There was no harmony and coordination between the relevant units (MoH, MoLSS, MoF, SPO and Treasury) of health financing.
- Actuarial balances had been disturbed completely.
- There was no correlation between the rate of increase in health expenditures and the rate of increase in national income.
- While performing health finance calculations, merely health care costs used to be taken into consideration; micro, macro and social welfare costs used to be ignored.
- Because there was no performance-based budgeting to be established for the effective and efficient use of public resources, there was no fiscal discipline, accountability and fiscal transparency in the financing of public health services.
- Because there was no “national health accounts system” enabling the monitoring and keeping of health accounts on a routine basis, it was impossible to access to the correct data on this issue.
- IMF bureaucrats had influence on the health financing policies, and they had no political accountability.

- There was neither vertical equity (distribution of burden between the rich and the poor) nor horizontal equity (equity between those who are at the same level of income) in health financing
- One of the most important elements of health financing strategy, risk pooling (compulsory social insurance, private insurance and out of pocket payment) wasn't compatible with neither mathematics nor ethical values.
- There wasn't a social security system covering the entire population; in addition, uninsured children had been left to their fate completely.
- Including primary health care services, even the majority of insured citizens couldn't access to health services. The number of applications to physician per person was under three (2.7) in a year.
- The budget allocated for preventive and primary healthcare services was very insufficient.
- 112 Emergency Health Care Services were being delivered as paid services for all citizens - both insured and uninsured.
- Our very few citizens could take the advantage of private hospitals and medical centers by paying very high fees. Only high-income citizens could access to the quality health services.
- When encountering a serious health problem (cancer, transplantation, congenital anomaly, cardio-vascular surgery), the citizens who are not in high-income group had to spend too much for health expenditures in so much that impoverishing their families.
- In the outpatient treatment of our citizens who are green card holders; tooth extraction, eyeglasses and emergency treatment costs weren't being paid, including treatment, examination and tests.
- Hospitalized patients (including insured ones) had to supply the pharmaceuticals and medical supplies on their own and most often, they had to pay additional charge.
- Setting up private business and setting up private practices were at the highest level.

The existing health financing system was both exposing the patient against the physician and rendering helpless. Both the health service provider and the receiver were the victims of the system.

2. Payment:

- The budgets of institutions that provide and receive health service were being prepared gropingly without depending on any strategic plan.
- Various social security institutions (SSK/Social Insurances Agency, Bağ-Kur/Self-Employed People's Retirement Fund, Emekli Sandığı-ES/Government Employee's Retirement Fund) were using different reimbursement mechanisms. They did not have a common model or strategy.
- Between health service provider institutions and reimbursement institutions, there was no payment schedule whose methodology and duration were determined.
- There was no payment model that was arranged for the smooth execution of primary and preventive health services.
- Because the regular mobile health service implementation was very insufficient for the citizens living in rural areas (only 20% of the population), those who live in these areas had to pay out of their pocket even for accessing to primary healthcare services.
- Case-based payment system which had been implemented was left to the hands of the clumsiness of the bureaucracy. Both the invoices of hospitals and their control had gone out of rationality.
- Public hospitals continuously had cash flow problem, and this was increasing the operating costs consistently.
- Irregularity had become an ordinary practice in the treatment of green card holders.
- Health professionals were defrayed fixed payment irrespective of the quality and quantity of the work.
- Informality in public hospitals began to be taken as normal. Hospitals neither had a regular accounting system nor did they have regular financial tracking.
- Waste of resources was being seen as a normal component of public management in hospitals.
- Because there was no rational reimbursement mechanism in public health facilities, unnecessary referrals had become a routine procedure.
- Even for insured citizens, payment of treatment and drug expenditures completely out of pocket and even informal payment had become a part of the payment system.
- There was no performance-based payment (not only for workers, but also for managers)

3. Organization:

- Because the primary care was not strong enough, primary and preventive health care services were insufficient.
- The physicians working in the primary care weren't guided to serve in this field. General practitioners working in the primary health care weren't able to focus on their work adequately because of their working conditions, socioeconomic situations and their expectancy for specialty.
- In urban areas, especially in metropolitans, health center infrastructure was insufficient. Many primary care facilities which were established previously for special purposes such as TB Control Dispensary, Mother and Child Care and Family Planning Center became idle because they either had completed their duties or they fell short of maintaining their importance.
- Because the rate of regular mobile service delivery was very low in rural areas, the preventive and primary health care indicators in these areas had reached dramatic figures.
- Citizens were unwilling to receive the health service from primary care and they were in tendency to go to hospitals directly. Insufficiencies in primary care resulted in long waiting lists in hospitals and increased the service costs and decreased the service quality.
- Emergency health services were extremely insufficient and without coordination in cities, they were lacking in rural areas.
- Public hospitals were neglected and almost all of them consisted of wards. In hospitals, the rooms with inbuilt toilet and bathroom were so few that one can count them on the fingers of one hand.
- In public and private hospitals, some units such as intensive care units, burn units and neonatal units were almost non existing in terms of quality and quantity.
- Public hospitals were so poor in terms of medical devices. Unfortunately, even the research and training hospitals were meeting the same fate.
- In the management and coordination of hospitals, there was no approach for performance and quality even at the conceptual level.
- Hospital managers' effects on management process, procurement and personnel were limited.
- The existing health care system didn't allow the health administrators to be entrepreneurs and take initiative.
- There were no reporting and supervision systems which form accountability to administrators.

- The only organized and coordinated activity in public hospitals was the necessity of out of pocket payment including the insured citizens and widespread setting up private practice.
- There were numerical inadequacies in man power in health sector; in addition, there were imbalances in the nation-wide distribution of the healthcare personnel.
- Instead of providing information for the whole sector, MoH was producing only statistical information in relation to its own institutions. Statistical results were not reliable because adequate organization and supervision were not insured in the collection and flow of data. These resulting data had not been transformed into information and had not been used for managerial purposes.
- In many places, health records of individuals were not better than the level of a polyclinic card; sometimes irregular files that were kept in hospitals were lost in archives. There was not an integrated system to keep the health records of individuals; in addition to this, a disease registry and notification structure had not been formed to collect and analyze epidemiological data.
- Use of information system had completely remained at the phase of record collection and storage; and for this reason, advantages such as transformation of data into information which is the main function of information, their analyses, use of this information and providing support to the management had not been made. This situation usually had turned the information systems into a workload.

4. Regulation:

- Health sector didn't have "Strategic Management". Because MoH concentrated upon the service delivery in its own institutions, it fell short of directing the sector and developing policies.
- Primary and preventive health care services were far away from meeting the needs of the country. There were only six vaccines in the vaccination program of our country in 1980 and this number just became seven in 2002.
- The issue of smoking, which is an important public health problem, used to be executed under the initiative of tobacco sector.
- Public hospitals did not have an efficiency-based financial management model.
- Because there was no effective coordination between the Ministry, SSK, university hospitals, institution hospitals and private hospitals; service and investment planning didn't use to be done in parallel with social needs.
- Fragmented structure of the health care system, disorganization in patient registry systems and efforts of each institution to create its own system had resulted in a complicated structure. There wasn't a medical record system to keep the regular and

- MoH and SSK hospitals were acting as if they were the health service providers of two different countries. The fact that people who are under the coverage of various social security institutions such as Emekli Sandığı, Bağ-Kur, SSK enrollees could receive service only from certain hospital groups in the system in principle and this used to increase inefficiency.
- MoH and SSK hospitals had a centralist structure; material and personnel management was inflexible and irrational.
- Extremely bureaucratic procedures in public healthcare delivery had sickened both citizens and health workers.
- Four physicians working in the public sector were sharing one examination room (for the other remaining three physicians it was impossible to meet the patients). On the other hand, citizens were waiting for hours to reach that room to get examined for a few minutes.
- In healthcare delivery, public hospitals were used like a conductor between the patient and the physician; private sector was addressing only a handful of people. The public saw the healthcare delivery to citizens as a favor, and left the healthcare delivery entirely to market conditions.
- There was no rational regulation in relation to the charges to be received against the service delivery of public and private health care facilities.
- Organ and tissue transplantation was a field where the citizens were completely left to their fate.
- There was no organization for the evaluation of the demands and complaints of citizens. Citizens had been left to the despair of the system.
- The services which were delivered to citizens and the obtained results were impossible to be evaluated.
- Although there were some standards that private healthcare providers had to obey during the foundation phase, no concrete steps were taken for the measurement of service results and the service process. Regarding this, there was a contradiction in terms for licensing and accreditation.
- Planning, training and use of human resources used to be performed by different institutions separately (planning by SPO, training by universities, employment by MoH and SSK); however, an effectual coordination was impossible to be ensured between these.
- Transparency and equity was out of the question during personnel appointments and transfers. Political initiative was effective in appointments, it was impossible to be protected from pollution.
- “Compulsory public service” implementation, which was successfully used for physicians in some developed countries of the world for the purpose of equitable access, was totally a fiasco.
- While “compulsory public service” was being tried to be implemented on one hand, a planning with the Council of Higher Education (CHE) for future was impossible to be done on the other hand because the lack of physicians wasn’t recognized.
- Almost every stakeholder had a wrong approach by mentioning that the number of physicians and the number of nurses are enough -sometimes they are over.

- Lack of coordination and control was the point in question in the management of health service network of central and provincial managers.
- Managers equipped with adequate knowledge and skills with respect to health policy development, health management and hospital management; and education programs to train these were so few in terms of quality and quantity.
- There were no contemporary and rational arrangements to protect the public rights in relation to intellectual property rights and pharmaceuticals' licensing, production, pricing, selling, exportation, promotion, control, research and development activities.

5. Behavior:

- Although the greatest target in healthcare delivery is to prevent the patients from diseases instead of treating them, the direct opposite of this procedure was being performed.
- In public healthcare delivery, the individual who would receive the service, his/her needs, demands and expectations were taken into consideration. Moving from the fact that health is produced in family environment, the individual didn't use to be evaluated within the framework of "family health".
- In public healthcare delivery, life style and prophylactic behavioral change programs were absent.
- "Patient compliance changing programs" that is one of the most important components of health service delivery were absent (i.e. promotion of breast milk, Directly Observed Therapy).
- In public healthcare delivery, citizens did not have option to call. A citizen could not determine by which physician he/she would get examined.
- In public health facilities, patient referral procedures were internalized by both citizens and physicians (as if they had been a part of the treatment).
- The patients used to have a habit to go to secondary and tertiary health institution in all problems.
- Including the insured ones, citizens had accepted it as a system to go to physician's private practice in order to get benefit from public hospitals.
- Managers' efforts were insufficient to decrease the cost through proper use of resources and to produce more services with the same resources.
- Negative behaviors of health professionals against citizens were accepted as if they were "patient rights".
- There were no training programs to change the professional perceptions and behaviors of health professionals and managers.
- Motivation of health professionals especially that of physicians was low because of the existing system since they couldn't protect the professional dignity and patient rights adequately.
- There was neither right to choose physician nor patient rights unit or home care service.
- It was difficult to access to pharmaceuticals.

TURKEY'S HEALTH TRANSFORMATION PROGRAM



B. POLICY DEVELOPMENT



Through the Laws that we enacted:

- We made it possible for 37 million SSK enrollees to receive service from public hospitals by uniting the public hospitals under a single roof through the Law No.5283, “The Transfer of Health Units in Some Public Institutions and Organizations to MoH”.
- Under the “Social Insurances and Universal Health Insurance Law” numbered 5510;
 - We enabled our citizens to receive service from private hospitals and medical centers through their health insurances,
 - We enabled everyone including whether they are insured or uninsured to benefit from all sorts of health aids free-of-charge in case of outbreaks, work accidents and occupational diseases,
 - For the diseases the treatment of which is impossible within the country, we provided an opportunity for all insured people to be treated abroad.
- Through “Social Insurances and Universal Health Insurance Law” numbered 5754; we reduced the premium payment duration from 120 days to 30 days for SSK enrollees and Bağ-Kur enrollees to receive health service.

- Through the Law No.5222, “Amendment of Law Pertaining to Meeting the Treatment Expenses of the Citizens without Means through Providing Green Card by the State” and “Social Insurances and Universal Health Insurance Law” numbered 5489;
 - We ensured green card holders to benefit from public healthcare just like other insured citizens,
 - to get their medications from any pharmacy they want,
 - in their outpatient treatment, to meet their examination and tests, medication, tooth extraction and dental prosthesis, eyeglasses and emergency treatment costs within payment coverage,
 - to take advantage of dental canal and filling treatment services free-of-charge.
 - We enabled the health expenses of citizens, who had the right to get green card and became sick without getting his/her green card, to be covered by the state retrospectively.
- Through the Law No.5258 “Family Medicine Pilot Implementation”, we put the family medicine implementation into practice in Turkey, which is common in the contemporary world.
- We enabled all our citizens to receive primary health care services free-of-charge through “Social Security Institution Law” numbered 5502.
- Through the “Law No.5947 on Pertaining to Full-Time Working of University and Healthcare personnel and to Amendment of Some Laws”, we rearranged the working principles of healthcare personnel working in public sector and ensured the citizens to access to their health rights and made some regulations to ensure the healthcare personnel to meet professional esteem.
- We introduced the contracted personnel implementation for hardship areas through the Law No. 4924 of “Recruiting contracted healthcare personnel in places where there is difficulty in staff recruiting; and Amendment on some laws and decree laws” and “Article 4/b of State Personnel Law”, the Laws No 5382 and 5413 of “Recruiting contracted healthcare personnel in places where there is difficulty in staff recruiting; and Amendment on some laws and decree laws”.
- Through the “Health Services Fundamental Law, and the Law of Indemnity and Working Principles of Healthcare personnel” numbered 5371, we arranged the indemnity and working principles of health care professionals.
- Through the Law No.5396 of “Inclusion of an Article to the Health Services Fundamental Law” and Law No. 5683 “Amendment on the Decree Law of Health Organization and Duties”, in terms of increasing the effectiveness of healthcare in our country, we introduced the hospital campuses implementation in order for cost-effective health service delivery, increasing service quality, completing the regional development in the field of health, for spreading the treatment variety nationwide.

- Through the Law No.5624 “Blood and Blood Products”, we made arrangements for meeting the need for blood and blood products.
- Through the Law No.5634 “Amendment on Nursing Law”, we rearranged the nursing education.

Through Cabinet Decision;

- We put the “Reference Pricing System in Medication” implementation into practice.
- We established the single reimbursement commission in medication.

Through the Regulations that we issued;

- We introduced air ambulance, helicopter ambulance, snow-pallet ambulance, snow vehicle with patient cabin, sea ambulance and motorcycle ambulance practices.
- We established “Water and Food-Borne Diseases Surveillance Tracking System” throughout Turkey.
- In addition, we established uninterrupted communication systems with the teams in 81 provinces and abroad by establishing a Health Disaster and Emergency Coordination Center (SAKOM) within the scope of the “Regulation on Crisis Management Center” of Prime Ministry.

Through the Circulars that we issued;

- We put an end to being held in pledge in hospitals.
- We transferred a lot of authority to provincial organizations of the ministry (i.e. opening and closing of primary care facilities, authority for opening and closing of pharmacies and their licensing, tracking of selling/consumption movements of preparations that subject to control and employee personnel procedures).
- We established the National Medical Rescue Team (NMRT) which is the greatest in Europe.
- We ensured all our citizens to receive primary healthcare services free-of-charge.
- We introduced a principle for each physician to have one examination room in MoH’s all health facilities.
- We extended the free mobile health services to all rural areas.
- We included the vaccines, which are used in the most developed countries in the world, into vaccination program (haemophilus influenza type B, rubella, mumps and conjugated pneumococcus).
- We provided monetary aid to the poorest 6% part of the society on condition that they will perform the tracking of their pregnant women and children.

- We established 123 KETEM (Cancer Early Diagnosis, Screening and Training Centers) in 81 provinces for the purpose of protecting our public from cancer and for early diagnosis.
- We introduced community based mental health services. We have been undertaking this service in order to provide psychosocial support to patients with heavy mental disorders and to perform their treatment and tracking at their own living environment, if required, in a manner integrated with home healthcare services.
- We introduced the “Directly Observed Therapy” implementation for TB patients.
- We automated all MoH hospitals fully.
- We increased the efficiency of all health facilities through service procurement.
- We introduced target oriented management through implementing performance-based budgeting in all our hospitals.
- We introduced performance-based supplementary payment system. In this way, we ensured physicians to work full time at hospitals and decreased the necessity for our citizens to go to private businesses.
- From the ward system at hospitals we passed to the room system with an inbuilt toilet and bathroom, in other words qualified room system. In the first 80 years, there were 7 thousand beds with inbuilt bathroom in public hospitals; and in 8 years, we created 30 thousand new beds in this manner.
- We introduced “Central Hospital Appointment System” at our hospitals. This is a system where citizens call 183 Call Center and get an appointment with hospitals and physicians they want, from operators for MoH Hospitals and Oral and Dental Health Centers.
- We established “National Organ Transplantation Waiting System”. We prevented misuse and speculations. Now, we convey the donated organs to the proper patient without waiting.
- We introduced the right to choose physician in all MoH-affiliated hospitals.
- We established “Pharmaceuticals Tracking System (PTS)” which monitors the medication at each step it passes.
- Through “Health-Net System”, all health information is displayed and solid decisions are taken by evaluating about 200 analyses and statistical reports in the “decision support system”.
- We made the 112 Emergency Health Care Services totally free-of-charge. In addition to this, we carried 112 Emergency Health Care Services to villages.
- We made it possible for all our citizens to get treated without paying any charge even in private hospitals for urgent and intensive care seeking conditions.
- Through Health Implementation Communiqué, we introduced the implementation that hospitals provide all medications and medical materials for inpatients as free-of-charge.

Through the Ordinances that we issued;

- We introduced “manager performance” implementation which covers hospital managers (Head Physicians, Deputy Head Physicians, Manager, Deputy Manager and Head Nurse).
- We initiated “Home Healthcare” implementation for the purpose of decreasing the duration of hospital stay and to ensure medical care and rehabilitation of the bedridden patients to be performed at home environment if possible.
- We established “Patient Rights Units” in all MoH-affiliated hospitals.
- We introduced distance education system via internet within the scope of health management trainings.

Through the Arrangements within the Ministry;

- We introduced contemporary screening programs for maternal and child health:

“Iron Like Turkey Program”

- “Program for the Prevention of D Vitamin Deficiency”
- “Program for Iodization of Salt”
- “Hypothyroid Screening Program”
- “Hearing Screening Program”
- “Biotinidase Screening Program”
- “Hemoglobinopathy Control Program”
- We initiated reproductive health education to 500 thousand soldiers in the Turkish Military Forces within the scope of the Turkey Reproductive Health and Family Planning Program.
- Through the Guest Mother Project, in areas where transportation is a problem, we accommodated pregnant women in guest houses nearby health care facilities until they gave birth, which was attended by skilled health care personnel in health care facilities.
- We introduced “Health Promotion” system which is used in the developed countries of the world. Our aim is to ensure the public to display the correct behaviors. Within this scope, we have been conducting the following programs:
 - Increasing physical activity
 - Prevention of Obesity
 - Prevention of tobacco use
 - Prevention of alcohol use
 - Personal hygiene
 - Oral and dental health

- Prevention of accidents
- Rational drug use
- Mental health
- Women's health and reproductive health
- Healthy birth delivery
- Worker's health and healthy workplaces
- Healthy schools
- Healthy environment
- Health literacy
- Healthy aging
- We have developed chronic diseases control programs:
 - Turkey cardiovascular diseases prevention and control program.
 - Global alliance program against respiratory diseases
 - Turkey obesity counteracting and control program
 - Turkey diabetes control program
 - Turkey mental health policy strategy
 - We have prepared the National Influenza Strategic Plan.
- We introduced Diagnosis Related Groups (DRG) payment system which considers the individual risk factors, family status, and socio-cultural environment of each patient.
- Within the scope of the Health Implementation Communiqué, dialysis patients are taken from their house and after service delivery, they are taken back to their houses. No charge is requested for this service.
- We have opened minimum one Oral and Dental Health Center in each province.
- We founded a laboratory for "Chemical, Biological, Radioactive and Nuclear Dangerous Substances".
- Through ALO SABİM 184 hotline service, we ensured our citizens to convey their requests directly to the Ministry, 24/7, without interruption.
- For the people living in rural areas where no pharmacy is available, we introduced mobile pharmacies in order to facilitate people's access to medicines.
- We achieved transparency in personnel employment (cast lots are carried out in the presence of a public notary).

TURKEY'S HEALTH TRANSFORMATION PROGRAM



C. POLITICAL DECISION



Transformation is not only a technical but also a political process. Politics spreads into all phases of transformation cycle. This requires political strategy development and the political determination stand behind the transformation program. Ethics, interests and differences in beliefs inevitably lead to various opinions on the transformation program. In order to resolve these disagreements, various political processes are used inevitably somehow.

Because of the cyclic structure of the transformation process, transformation policy is continuously being developed. Transformation program will strengthen some interests groups and will weaken some of them on the other hand. Interests groups try to have an impact on the implementation of transformation program and its redesign. New external shocks might occur and these might change political perceptions. Transformation program creators will have to reevaluate their own technical analyses and they will have to perform their political analyses again as the transformation process is progressed. For this reason, a successful transformation program is an issue of political skill and personal commitment. The implementation of this decision is only possible through the complete support of prime minister and governments. Political decision is determined by willingness, skill and political strategies.

The Determinants of the Political Strategy of the Health Transformation Program

- HUMAN...
- FIRSTLY HUMAN...
- “LET PEOPLE LIVE SO THE STATE LIVES”

Some examples indicating our political determination in the implementation of the Health Transformation Program:

- When we took office, our 37 million SSK enrollees didn't used to receive service from state hospitals. Annual examination number was 58 million, and the annual number for a SSK enrollee to go to a physician was 1.5. SSK enrollees had 8 thousand physicians available to get examined and only 2500 of them had an examination room. Daily average per physician was 93 patients.

Consequently, the state had only 8 minutes a year for health services to present to SSK enrollees. The citizens had only 148 hospital pharmacies to take their medications written in the prescription. The citizens had to wait in queues to take their medications. Only a limited number of citizens used to have access to the same medications that their physicians prescribed.

When we performed legal arrangements to gather all Public Health Facilities under one roof, those who wanted to prevent this unification carried this process into the Constitutional Court with some justifications claiming that it wasn't serving the public interest purpose and it wasn't in compliance with the social security right. The Court, however, refused this objection.

Today, 37 million SSK enrollees, like other citizens, can get service from 2330 hospitals and medical centers, as well as 6336 Family Health Centers. SSK enrollees, who could only get service from 148 hospitals yesterday, can get their medications from any one of 25 thousand pharmacies.

- Through the Law on "Family Medicine Pilot Implementation", we put the Family Medicine implementation into practice in Turkey, which is common in the contemporary world.

Turkish Medical Association (TMA) objected to this implementation claiming that when Family Medicine system is implemented in our country conditions, "access to health service would be impossible for a huge part of the society, it would increase unemployment more, it would remove the personal rights and benefits of health professionals, and it would make them unemployed". TMA could find political support for these claims, as well.

Decidedly implementing the Family Medicine System which we initiated in 2005, we extended it nationwide as of 2010. At the present time, we are serving a population of seventy four million with 20.500 family physicians. Now, you have family-specific physicians whom you may visit at any time and consult on the phone whenever you want without paying any charge. In this way, health records of everyone could be followed-up regularly; a health care system integrated with our hospitals and a proper referral chain could be developed.

Through this implementation, we ascertained that satisfaction of citizens and health professionals increased significantly.

Before we put the “Health Transformation Program” into practice, the physicians’ rate of having private practices was 90% in Turkey. The public couldn’t reach the physicians without out of pocket expense. This situation was accepted as the natural right of physicians and the fate of patients.

We introduced the Full Time Working Law to ensure the healthcare personnel to work full time for the purpose of removing the necessity of citizens to go to private practices of physicians. Through this law, we rearranged the working principles of healthcare personnel working in public sector; we made some regulations to ensure the citizens to access to their health rights and to ensure the healthcare personnel to meet professional esteem.

What were our objectives with this law?

Through Full Time Working Implementation, we aimed;

- To make the work load of the insufficient number of health professionals more balanced,
- To remove the direct monetary affairs between physicians and their patients,
- To strengthen the trust relationship between our citizens and physicians,
- To facilitate the patients’ access to health care services.

What did Full Time Working Implementation bring to citizens and health professionals?

- We increased the bonus payments of health professionals,
- We ensured the healthcare personnel to earn extra income through bonus payments for overtime work,
- We introduced an insurance system against malpractices,
- We cleared the way for developing the collaboration between MoH and universities,
- We rolled out “Right to Choose Physician”, and made it accessible for all citizens, not only for people of means,
- We took measures to decrease the patients’ waiting time in state and university hospitals,
- We cleared the way for our citizens to receive the most special services at anytime and anywhere.

The law which passed from our Assembly was brought to the Constitutional Court and some of its articles were cancelled.

We have followed up the issue jurally and we will continue to follow up. We believe that as a result of the legal struggle that we execute, we decreased the binary working system significantly and we will remove it completely in favor of our public.

- Through the amendments we have done on the “Law on Prevention and Control of Harmful Effects of Tobacco Products”, we introduced new regulations for the consumption of cigarette and tobacco products in order to protect the health of our citizens. There has been a great support by the public (95%) to the measures, the implementation of which started on May 19th, 2008 and which aim the prevention of passive smoking.

Regulations on businesses which present entertainment services such as restaurants, coffeehouses and pubs entered into force on July 19th, 2009. Entertainment and catering sector organizations filed a claim at the Council of State for the purpose of cancellation or bending of the law. The Council of State brought the case to the Constitutional Court and the Court made a decision in favor of the law.

Especially the Prime Minister’s embracing the subject and our determined standing as well as the steps we took quickly gave results. Before the law, tobacco consumption rate was 33.4% for 15+ ages in 2006 and following the introduction of the law, the rate dropped back to 31.2% in 2008 and 27.1% in 2010. In a very short time of 2 years, the smoking cessation rate became 4.1%. This is an unprecedented great success in the world which resulted from our determination.

TURKEY'S HEALTH TRANSFORMATION PROGRAM

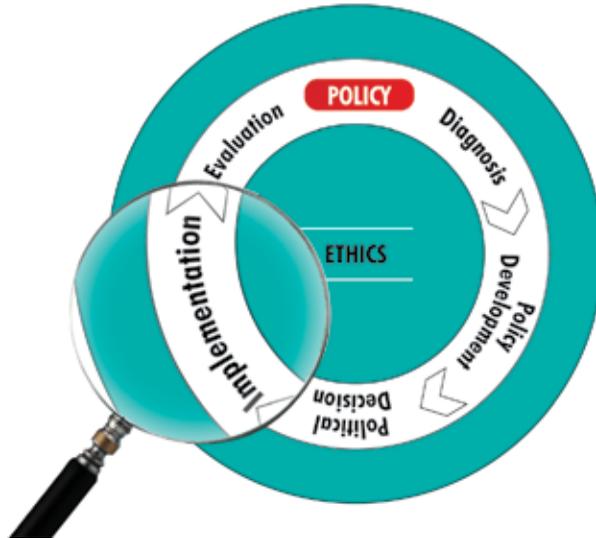


D. IMPLEMENTATION

1. Primary and Preventive Health Care Services

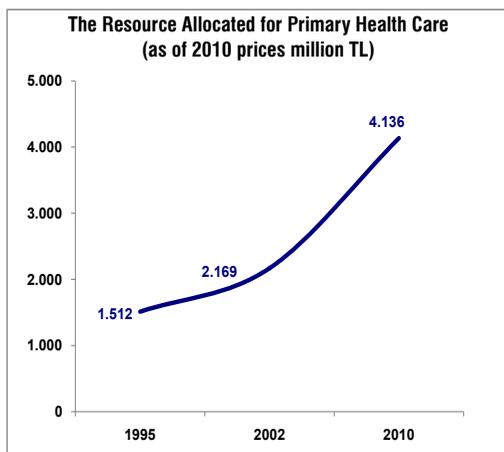


HE Minister of Health during the vaccine campaign.
The poster at the background says "Everything starts with health. Health starts with VACCINE".



The Health Transformation Program aims to improve and structure the institutional position of the primary health care in a way to have authority and control over other service levels. The main focus of this transformation is to improve the conditions for the citizens in general and patients and health professionals in particular; and to constitute a starting point for innovations in this field. It is clearly observed that this program takes primary health care as the basis for service provision. A large number of activities and projects have been implemented in the field of primary health care with this approach; a multi dimensional program has been conducted. The current status was not neglected during the course of new regulations; and extensive activities for the improvement of the current status were carried out. The most outstanding feature of the Health Transformation Program is to embrace the existing heritage and to take it further as far as possible while conducting the transformation.

A campaign for preventive and primary health care was held in this period and the budget of preventive and primary health care, which was 928 million TL in 2002 reached to 4 billion 136 million TL in 2010. The resource allocation for preventive services and primary health care in 2010 (real prices) has almost doubled in comparison to the allocation in 2002.



Graph 1

A budget of
6 billion 424 million TL
 was allocated for preventive services
 and primary health care in 2011.

1. A New Era in Primary Health Care: Family Medicine



The marked banner in this picture indicates that the children want family medicine.

Primary health care is a low-cost, effective and common service delivery; it provides the services of health promotion, preventive health services as well as the diagnosis, treatment and rehabilitation services of primary level together in a readily available way.

In our country, primary health care has been provided through health centers and health houses since 1960s. Providing important returns in the field of maternal and child health, this implementation has been conducted as a regional-based implementation. However, because the necessary improvements hadn't been performed in the meantime, it didn't use to meet the growing service needs later on.

Having been implemented since 2003, the Health Transformation is a citizen-centered / an anthropocentric program. This principle means that the system will take individuals' needs, their demands and expectations into consideration when planning and providing the primary health care services. One of the important components of this program is family medicine which is also the contemporary implementation of the primary health care. Family medicine is a motivating implementation, it is open to improvement and considers individuals along with their bio-psycho-social environment and as a whole from their birth to their death, and it provides the right of choosing their own physician and gives more professional satisfaction to health professionals.

A family physician is responsible for the health status and health problems of all members of the family beginning from the fetus to the eldest individual. The physician takes due precautions to prevent the individuals under his/her responsibility from diseases. In case of sickness, the physician treats them within the scope of his/her knowledge and experience.

For the problems of the patient that cannot be solved at primary health care level and also need specialty or special equipment to be solved, the family physician acts as a coordinator and refers the patient to other specialists, dentists or secondary-tertiary health institutions. Therefore, a family physician is the health consultant of patients, he/she is the one who guides patients and defends their rights. The family physician is generally close to the residences of families and is easy to access. The family physician knows the population for which he/she provides services in all aspects and fully evaluates the family, environment and work relations. He/she is the person with the best knowledge on the health status, living conditions of all family members and the ways to provide preventive healthcare services and health education to these individuals. Family physicians not only evaluate the individuals within the framework of disease conditions, but also evaluate patients' situation as a whole taking into consideration the risks, health conditions, psycho-social environment and other acute or chronic health problems, if any.

According to Prof. Dr. Nusret Fişek who had significant contribution to the arrangement of primary healthcare services in 1960s in our country, "Individual preventive healthcare services, outpatient and home care services should be conducted in an integrated manner. Contemporary family medicine system is the simplest example of this integrated model. Contemporary family physicians examine children periodically and vaccinate them. They train mothers on child care. They also examine elderly people and pregnant women and give advice, if necessary. They train family members on health, domestic and personal hygiene. They treat family members who get ill and refer them to a specialist or hospital, if necessary."

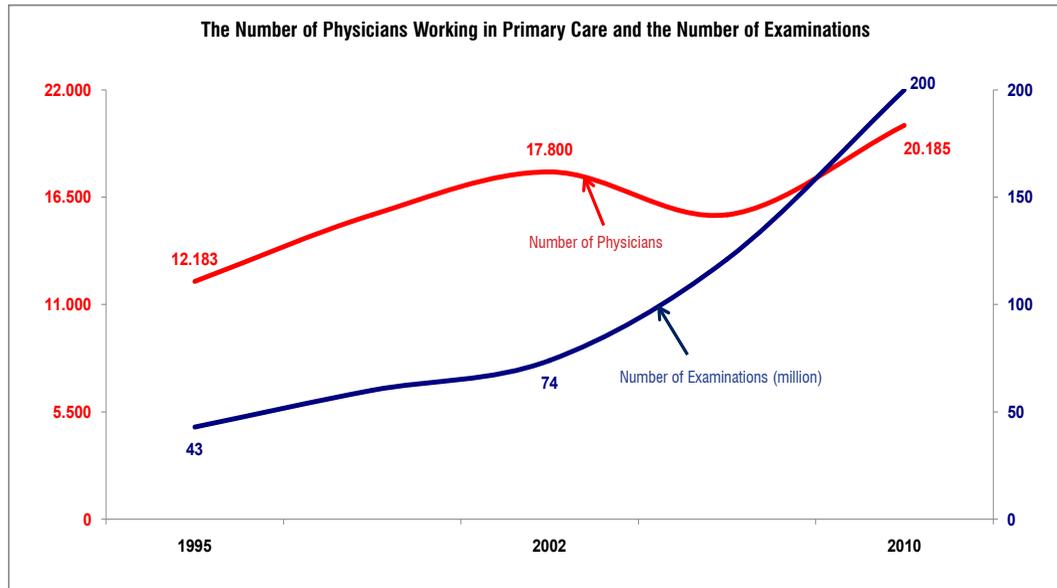
Family physicians have a gatekeeper role in the health care system to prevent inappropriate referrals that might cause loss of time for individuals and service providers, irregularities and unnecessary health spending. In this way, they prevent unnecessary spending, long waiting lists at secondary health care level, long queues and unjust treatment of patients.

We have established a unique model of this contemporary service for the purpose of ensuring primary health care services in our country to be rearranged with a modern approach and in a manner preferable by all individuals. While forming the model, we have reviewed the implementations in many countries, taken the conducted studies into account and finally we have introduced a precise study by considering the needs and conditions of our country.

Following a period of intensive preparations, the Law on Family Medicine was entered into force in 2004. The implementation was first initiated in Düzce in September 15th, 2005. We have introduced the family medicine practice countrywide as of December 13th, 2010.

Through this implementation, we have gathered individual preventive health services as well as diagnosis, treatment and rehabilitation services of primary care under family health centers; other duties including the coordination of social preventive health services under community health services.

Before family medicine, 17,800 physicians were working in primary care health facilities; following the introduction of the implementation, as of December 31st 2010, totally 22,352 physicians began to provide service including 20,185 physicians in 6,367 family health centers and 2,167 physicians in 961 community health centers. In this way, we ensured our citizens to reach physicians easily.



Graph 2

As of the end of 2010, one family physician serves 3,600 people. We have planned to decrease the number of people registered to family physician gradually by years. Our target for 2013 is that one family physician will serve 2,000 people.

We provide family medicine service completely free-of-charge for all citizens without the requirement of any social security coverage. We do not receive co-payment for this pack of services including health promotion and prevention services; examination; intervention; tests, screenings and vaccinations conducted in primary care; mobile health services and home care service.

While we were continuing to roll-out the family medicine implementation countrywide, we were also performing legislative arrangements and working to increase service quality dynamically. For this reason, we have performed various amendments on the implementation and payment regulations.

We have structured the family medicine as a willingness-based team work. Physicians voluntarily apply for the announced positions and they are signed contract for the family health center to which they were settled according to their service score. They separately sign a contract with family healthcare personnel they pull together. Midwives, nurses, health officers (community health) might become family healthcare personnel; and through an amendment in 2010, we enabled the emergency health technicians to have this opportunity, too.

In addition, when family physicians have a registered population in rural areas, we provide support to them through health house midwives. Their laboratory tests and screening services are organized by the provincial health directorates. We have also planned to support the family physicians in specific specialty fields such as psychologist, dietician, social worker, physiotherapist, child development specialist.

Family physicians periodically provide mobile health services to those who live in rural areas. Through an amendment in 2010, we began to provide home care service for bedridden patients and in place health service for those who live in places such as rest home, prison or nursery.

In addition to these; in accordance with a protocol signed with the collaboration of MoH and Turkish Pharmacists' Association in September 2009, we have introduced mobile pharmacy implementation in regions where no pharmacy is available to allow the public to take their medications prescribed by the physician for their treatment. In regions where no pharmacy is available, through facilitating the access of people to medication, we aim to serve for public health and ensure the supply medication by efficient use of public resources in compliance with deontology.

For those who serve as family physician and family healthcare personnel, it is possible to return to their previous jobs if they want. They may continue to take advantage of their rights such as promotion, appointment, retirement period while they maintain their current duties.

We pay a motivating charge to those who are assigned in the family medicine implementation.

We ensured family physicians to use initiative in work and office management. We provide incentive payments to family physicians apart from their charges for the purpose of paying the fixed expenses of the family health centers and improving their physical conditions. Through these payments, employees and service receivers attained better working conditions.

People's first recording to family physicians are done according to the nearest family health center to their residence, and later on they may choose and change their family physician without any region or time restriction.

Training of Family Physicians

Just like in many countries of the world, family medicine was ultimately structured as a primary care specialty in our country. Family medicine specialists are the most proper people for family medicine service delivery. Since there is lack of physicians in our country in general, the number of family medicine specialists is fairly insufficient as well. When structuring the family medicine model within the framework of the Health Transformation Program, it was possible to authorize general practitioners directly to perform as family physicians just like the examples seen in some EU Countries. However, we preferred a much more difficult way and in order to keep the level of the health service quality as high as possible, we decided that practitioners who will serve as family physicians will have to receive a standard training.

We have conducted a very heavy study in order to achieve this goal of family medicine as an important component of the Health Transformation Program. Family Physicians Counseling Committee was set up with the participation of professional organizations and academicians. The committee worked with such diligence and discipline to prepare the training curriculum for general practitioners to be assigned in the family medicine system. The program was decided to consist of two stages. In the first stage of the training, the physicians (excluding family medicine specialists) to be assigned in the family medicine will be trained for 10 days and the allied healthcare personnel will be trained for 3 days long. We have been conducting the trainings without stopping under the supervision of academicians who are the experts of the subject. As of the end of 2010, approximately 45,000 physicians and 25,000 allied healthcare personnel got their certificates after they have completed these trainings successfully.

We have planned the second stage as a long-term training on the update and improvement of professional knowledge and put it into practice. Within this plan, the physicians who have completed the first phase orientation training are subjected to the second phase training of 1 year. We have planned the second phase training so as to include 37 knowledge modules with clinical content and 3 skill improvement modules with application. We have been providing the second phase training as a combination of distance education via internet and face-to-face education.

We have initiated the second phase trainings in the first 11 FM provinces. 3,500 family physicians are currently getting the training of first 7 modules. Through the second phase trainings, we aim to ensure all physicians completing the first phase and working as family physicians to increase their clinical knowledge level to the level of competence until 2013. Promoting the training of more family physicians on one hand, and readdressing the family medicine specialty training which is conducted as clinical rotations in 2010 on the other hand, we have changed the system in compliance with the international standards that half of the training will be given in the field.

Community Health Centers (CHCs)

We have founded the Community Health Centers in order to provide more effective and efficient health services by unifying all services at primary care level under a single roof except for preventive, diagnostic, curative and rehabilitation services. These centers give free-of-charge logistic support for priority service fields of family physicians such as vaccination campaigns, mother and child health and family planning services in accordance with the annual program of the MoH; carry out activities regarding the supervision of family physicians; and provide health services such as environmental health, judicial services, worker and occupational health, which are services of public concern rather than being individual health services. Thus, both family health and community healthcare services were unified and primary health care structure was integrated.

With the contributions of relevant experts, we have completed the “Guideline for Primary Health Care Implementation and Data Set” for community health centers. This guideline will be fairly beneficial for implementers and decision makers.

As the process moves forward, it is planned to employ family medicine specialists in family health centers and public health specialists in community health centers.

We have established a scientific committee including mainly academic members of the public health departments and aimed to improve the knowledge and experience of CHC personnel. As a result of the works conducted by the scientific committee, we have decided that the CHC personnel should be trained within a phased training. 540 responsible physicians will have been trained at the end of the CHC first phase trainers' trainings that began at the end of December 2008. We will have provided this training to all of 961 CHC responsible physicians in 2011.

Satisfaction of citizens:

The Health Transformation Program is human centered/anthropocentric and considers the health service satisfaction as important. We have improved the working conditions of family physicians and physical and technical conditions in which our citizens receive service through family medicine implementation. Applying to the family health centers, our citizens meet service friendliness and well-trained personnel and receive better quality health service.

As a reflection of this, in the provinces where family medicine implementation was introduced, the preference rate of our citizens for choosing primary care health facilities was 38% in 2002 and the figure rose to 51% in 2010. Our citizens' demand is gradually increasing to get the health service from primary care.



The effects of the implementation on primary health indicators:

This indicator is extremely important in order to indicate the reflection of implementations on health statistics and particularly to show the quality and extensity of preventive health services. Through the implementation, infant and pregnant women follow-ups increased; contribution was made to the decrease of maternal and children mortality; and vaccination rates rose to around 97%.

Financial sustainability of the implementation:

We have provided better financial rights for physicians and family healthcare personnel compared with their previous situations. Through this motivating and productivity raising implementation, we made it possible to decrease the need for secondary health care service and to direct the investments to more productive and necessary fields. As we have seen the financial sustainability, we have decided to roll it out countrywide.

Family Medicine from the point of citizens:

- We passed from region-based system to the population-based primary health care service. Now, in the health service delivery, we see people as an individual instead of being a member of the society.
- We have established easily accessible health facilities near the residence of citizens.
- Taking individual preferences into consideration, we have provided our citizens to have right to choose and change their physicians. Now, people may choose the physician whom they have better communications with and also they trust and reach easily.
- We ensured the integrity and dynamic update of health records. We have provided our citizens an opportunity for their health records to be kept up-to-date beginning from their births and receive health service in line with their needs.
- We have minimized the time and work loss while receiving health service. Citizens may receive service from family physicians by appointment and they may reach secondary health care service they need in the shortest way through the guidance of the family physician.
- We have made the access to health services free-of-charge.
- Citizens may receive service from the family physician easily without any co-payment or presenting any documents.
- Physician-patient communication is shaped on the basis of trust, respect and friendliness. The right to choose physician and also the physicians' desire to protect their patients have made a significant contribution to this process. Now, physicians are attending ceremonies such as weddings or funerals of the people in their record lists and began to take part in the family photographs.
- Family physicians provide health consultancy to our citizens free-of-charge.
- We have extended the coverage of preventive health service through family medicine. We have also added the promotion of healthy life programs to the preventive health services such as vaccination, pregnant women and infant follow-ups, health screenings, etc. Under the responsibility of family physicians, we have been carrying out many preventive health services such as vaccinations, infant and pregnant women follow-ups, 15-49 aged women follow-ups, screening programs, Vitamin D and iron supplement support, periodical health controls for specific age groups, national disease control programs.

- We have extended the coverage of health services and included the programs for the prevention of chronic diseases (particularly tobacco control, prevention of obesity, diabetes, cardiovascular diseases) and early diagnosis implementations into the coverage of health services. Now, family physicians are participating in works for the purpose of increasing public awareness and development of attitude and behavioral change in these fields.
- Effective and efficient delivery of preventive health care services made it possible for our citizens to ensure the protection from diseases; it also extended the life expectancy and contributed to leading a quality and healthy life.
- Some health reports which are required for starting a job, marriage, school, driving license, death certificate, etc. are given by family physicians.
- We have given the responsibility of vaccination, pregnant women and infants' follow-ups directly to family physicians. These services used to be conducted mainly by midwives previously. In family medicine implementation it is stated that the physicians who do not conduct this duty well enough are subjected to pay cut and if they continue this attitude despite warnings, termination of their contracts is considered.
- Performance-based controls are done for these services; and the wages are cut back (up to 20%) for the physicians whose performance is low.
- Family physicians update their health records minimum once a year through direct contacting the people they serve.
- For the groups who have difficulty in reaching the family physicians (those who live in prison, rest home, and nursery, etc), we provide health service in place periodically.
- We provide mobile health service periodically in rural regions where people have difficulty in reaching the physician. During this visit, the infants are vaccinated if they are due, pregnant women- puerperants and infants are followed up, health problems of the region are evaluated, necessary trainings are provided and citizens are diagnosed and treated if they need.
- Family physicians conduct home visits where necessary.
- Family physicians coordinate the health care to be given to bedridden people who need home care.
- In comparison with health centers, more cute and functional family health centers are established. The minimum standards of these centers were defined and we encourage these centers to reach higher standards.
- Thanks to full time working and better recognition of the individuals, it becomes possible to allocate more time to patients. In addition, unnecessary applications to hospitals are gradually decreasing.

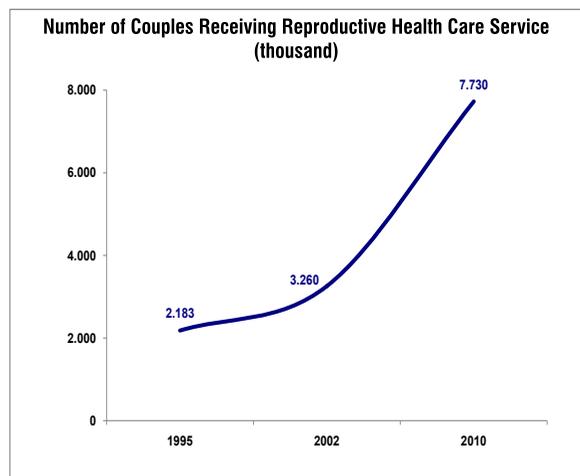
Family Medicine from the Point of Health Professionals:

- Contemporary primary care health service (passing from region-based system to population-based primary care health service),
- Professional satisfaction,
- Prestige increase,
- Use of initiative in work and office management- autonomy,
- Motivating charging,
- Better working conditions,
- Competition in quality,
- Continuing medical education,
- Clarification of job descriptions,
- Family physician's recognition of people under his/her responsibility and simplifying his/her job,
- Non presence of money in physician-patient relationship,
- Removal of secondments,
- Primary care health service became a specialty field,
- Voluntary participation in the implementation,
- Enabling willingness-based team work.

2. Maternal and Child Health Care

a. Sexual Health and Reproductive Health Program

Turkish Sexual and Reproductive Health Program is implemented in cooperation with the EU in order to increase the utilization and accessibility of services in the field of sexual and reproductive health, improve service quality to support the MoH-conducted studies and to strengthen the collaboration with the NGOs. Turkey's Sexual and Reproductive Health Program is conducted in cooperation with the EU. 3,260,000 couples received sexual and reproductive healthcare services from the MoH health institutions in 2002, whereas the number of couples reached up to 5,545,050 in 2007 and 7,730,420 by the end of 2010.

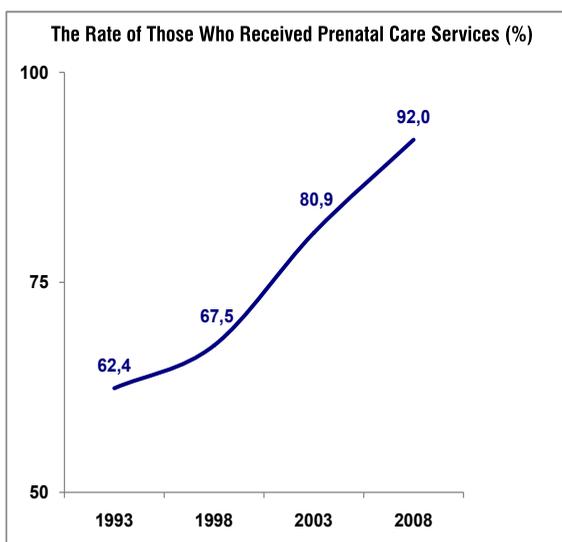


Graph 3

In addition, screenings are made, possible risks are detected and necessary training on kin marriage and inherited diseases is provided before marriage to men and women living in risky provinces for hemoglobinopathy (inherited blood diseases). In 2010, we provided pre-marriage hemoglobinopathy screening tests to 562,912 individuals in 33 provinces with high incidence of thalassemia. Coverage of pre-marriage screening was 84.3% in these provinces.

b. Women are Getting Prepared for Pregnancy and Motherhood. Mothers Will Enjoy Their Motherhood...

All 15- 49 aged women are followed up twice a year by primary care health institutions and family physicians for the purpose of informing them on fertility behaviors, determining the risky situations, diagnosing pregnancy in early period, informing on the use of family planning methods, consulting on the women health issues. Through these follow ups conducted in pre-pregnancy period, women are prepared for pregnancy.



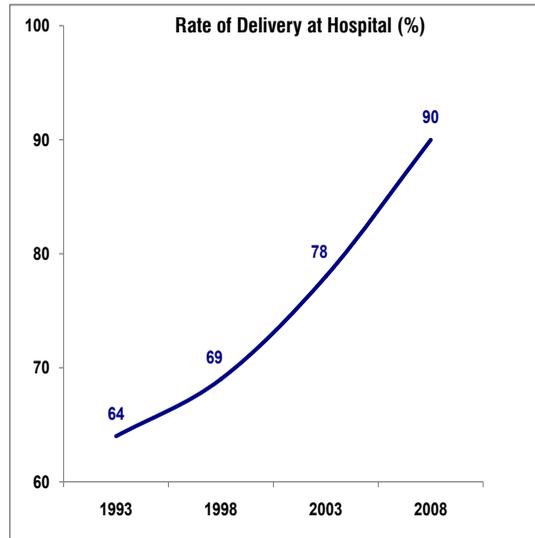
Graph 4

According to the “Prenatal Care Management Guidelines”, pregnant women are ensured to be followed up minimum 4 times a year if they have no risk. Moreover, Risky Pregnancy protocols are prepared as well. Within this scope, we have prepared Epilepsy, Diabetes Mellitus, and Asthma Risky Pregnancy Protocols. Prenatal care rate was 80.9% in 2003 Turkey Demographic and Health Survey (TDHS), and was 92% in 2008 TDHS. According to 2010 National Data System, this figure is 94%.

In order to meet the growing need for iron in pregnancy, we provide 40-60 mg/day iron supplement to each pregnant women beginning from the 16th week of her pregnancy and continuing for 3 months long after delivery. We provided iron supplement support to 90% of pregnant women free-of-charge in 2010.

We have initiated the Baby Friendly Hospital Program in order to decrease the maternal and infant mortality by ensuring all deliveries to be performed at hospitals under safe conditions and through follow ups of pregnant women and puerperants. Baby Friendly Hospital title will be given to hospitals that meet the defined criteria.

We monitor all hospital deliveries and caesarean rates in order to remove inequalities and to ensure each pregnant woman to give birth healthily and safely at hospitals and to ensure the caesarean rates to be at reasonable levels.



Graph 5

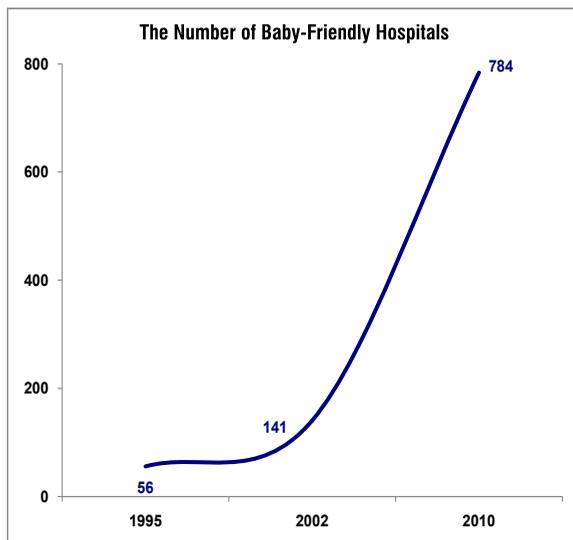
Moreover, we are changing the delivery room and labor rooms into single bed units considering the privacy of patients. According to 2003 TDHS data, hospital delivery rate was 78% whereas 2008 TDHS rate was 90%.

We have prepared Postnatal Care Management Guidelines line in order to prevent the maternal and infant mortality caused by reasons such as infections, preeclampsia-eclampsia, and bleeding in the postpartum period. The postpartum care rate, which was firstly questioned in 2008 TDHS, was 84.5%.

For the prevention of maternal mortality, it is important to prevent unintended pregnancies and to prevent women to become pregnant in intervals shorter than two years. The number of visits performed for family planning and to people for whom family planning methods were used was close to four million in 2003 and it got closer to eight million at the end of 2010.

Emergency Obstetrical Care program works are going on with components including cross-sectoral collaboration, safe blood transfusion, safe referral, response to infant and mother in obstetrical complications.

We have been continuing in-service training of healthcare personnel through Reproductive Health Module Trainings for the purpose of ensuring quality service delivery in Reproductive Health Regional Training Center and Reproductive Health Training Center which were established within the scope of Reproductive Health Program and rolled out in 81 provinces after the program was initiated.



Graph 6

c. Safeguarding Our Future: Mothers and Children

Feeding the babies only with mother’s milk in the first 6 months and continuing with complementary foods as from the first six months in addition to mother’s milk until 2 years of age prevent the infant mortality rate at around 20%. Having been initiated with the purpose of promoting mother’s milk, the number of “Baby Friendly Hospitals”, which was 141 in 2002, reached to 784 at the end of 2010. Every infant born in the baby friendly hospitals are fed with mother’s milk and make a healthy start to their life.

Today all hospitals where mothers give birth are baby friendly.

Mother’s milk is the right of every child...

Collaborated with UNICEF, “Breastfeeding Promotion and Baby-Friendly Health Facilities Program” whose main principle is “to feed infants with mother’s milk during the first six months of their life, introduce adequate and sufficient food supplements after the sixth month and continue breastfeeding until 2 years of age” aims to prevent, promote and support breastfeeding. Within this scope, our hospitals where delivery are performed and primary care facilities which perform the follow-ups of pregnant women and infants are rewarded depending on their success rate in applying this principle and they are given the title of “baby friendly health facility” and the provinces that successful at this issue throughout the province are rewarded with the title of “baby-friendly province”.

Between 1991 and 2002, 141 hospitals and 1 province had the title of baby friendly, as of today 784 hospitals and 78 provinces have the title of baby friendly; 31 provinces took their works a step further and became “Golden Baby Friendly Province”. Now, all hospitals where delivery is performed are baby friendly.

According to the 2003 TDHS results, the rate of feeding with only mother’s milk during the first six months was 20.8%, this rate almost doubled in 2008 and reached to 41.6%. In this way, much more infants had the chance to make a healthy start to their life.

In order to protect our infants and mothers from anemia, we started providing free iron supplement to pregnant women free-of-charge. Each year, around 1 million pregnant women benefit from this service. We have provided iron supplement to infants exceeding 7.5 million from the beginning of the project in 2004 until the end of 2010.

The number of infants that we provided iron supplement was 1 million 245 thousand just for 2010. In 2010, we provided 3 million boxes iron preparations to pregnant women and mothers.

We started disseminating free Vitamin D for supporting the skeletal development of infants. We provided Vitamin D supplements to more than 7 million 300 thousand infants from May 2005 to the end of 2010. We distributed 2 million 500 thousand boxes of free Vitamin D in 2010.

Iron-Like Turkey

According to WHO data, it is predicted that approximately 30% of the world's population and more than half of the pregnant women have anemia.

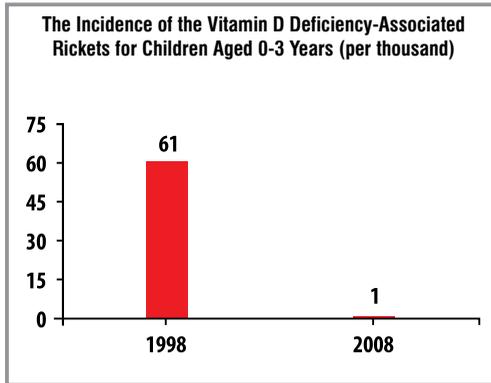
Before the Health Transformation Program was initiated, iron deficiency anemia was very common in Turkey and the researches revealed that approximately 50% of the children aged 0-5 years, 30% of the school age children and 50% of the breastfeeding women had anemia.

Children most frequently develop iron deficiency anemia when they are 6-24 months old. Growth and development of children is the fastest during this period. Nutritional disorders and iron deficiency in this period has negative impact on the later mental, physical and social development of children. The easiest way to prevent such negative effects is to protect children from iron deficiency anemia.

With a view to solving this significant public health problem, we started the "Iron-Like Turkey" program at national level to raise awareness about iron deficiency in the society; to feed infants with mother's milk during the first six months of their life, introduce adequate and sufficient complementary foods after the sixth month and continue breastfeeding until 2 years of age; to provide free iron supplement to all infants aged 4-12 months for protection and to offer iron therapy for infants with anemia between 13-24 months. We have provided iron supplement to more than 7.5 million infants since the onset of the program.

Following the Iron-Like Turkey program, we also undertook the Iron Supplement for Pregnant Women program and further expanded the scope of our activities. We distributed 3 million boxes of iron preparations to pregnant women in 2010.

In order to examine the effects of Iron Like Turkey program, "Iron Deficiency Research" was conducted in March-April 2007 with the cooperation of our Ministry and Hacettepe University School of Medicine's Department of Social Pediatrics. According to the results of this research, incidence of anemia has decreased from around 30% to 7.8% in children 12-23 months old. This rate was 6.4% in the research conducted in March 2011 by Gazi University. These results clearly reveal the steps we have taken to help our infants become healthier and achieve their cognitive potential.



Graph 7

The studies conducted by Atatürk University School of Medicine in the Eastern Anatolia revealed that the incidence of the Vitamin D deficiency -associated rickets, which used to be 61 per mille previously, was noted as 1 per thousand in February 2008 for children aged 0-3 years.

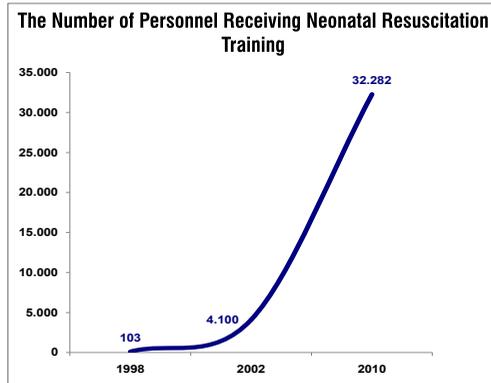
Support to first breath while starting life...

The minutes just after the delivery are crucial for providing assistance to infants in order to help them comply with the life out of mother's womb. The results of the intervention to the infant who is having difficulty in breathing during the first few minutes of the life causes lifelong results by affecting the quality of life in a direct manner.

Providing the necessary assistance and care to newborns in first minutes and establishing the fundamental resuscitation implementations could only be realized through the training of personnel equipped with the knowledge and standard implementations.

We introduced the Neonatal Resuscitation Program (NRP) in 1998; within this scope, it aims to have trained minimum one personnel available in every delivery room for the purpose of preventing disabilities and anoxia-associated deaths. Beginning with 103 people in 4 implementing courses in 1988, this journey is continuing in 1595 implementing courses with the participation of 32.282 people who serve in delivery rooms. The number of trained healthcare personnel was 4100 until 2002, and later on, the figure increased 8 times in 8 years. Apart from our Ministry's personnel, the trainees include participants of universities, military hospitals and private hospitals. Today all our units where mothers give birth have trained personnel available. We will continue to walk in this way until no infant is lost due to preventable causes.

Today, all our units where mothers give birth have trained personnel available.

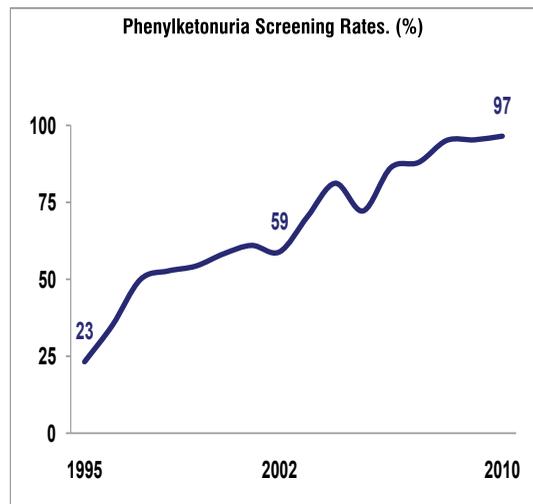


Graph 8

d. We are Overcoming the Obstacles through Newborn Screenings!

When some genetic diseases aren't diagnosed early, they cause permanent damages particularly affecting the brain tissue. Thorough the screenings conducted during the newborn period, these diseases are diagnosed early and disability might be prevented through proper treatments.

We have extended the neonatal screening program nationwide to provide a healthy beginning for the newborns. Screening for phenylketonuria, which was launched previously, was rolled-out throughout the country. Fully aware of the importance for neurological development of children, screening for congenital hypothyroid was initiated at the end of 2006 and screening for biotinidase deficiency was initiated at the end of 2008. In this way, our babies are widely protected from phenylketonuria and congenital hypothyroid, diseases that can be prevented easily when detected,



Graph 9

but cause irreparable damages such as mental and physical development retardation when missed. 96.5% of the target population was reached in phenylketonuria and hypothyroidism screening. Under the Newborn Screening Program, 1,244,222 infants were screened in 2010; treatment was initiated for 205 infants diagnosed with phenylketonuria, 2250 infants with congenital hypothyroid (including temporary cases) and 190 infants with biotinidase deficiency.

We have completed the establishment of Newborn Hearing Screening Units in 451 hospitals in all provinces and screenings have been initiated. 766 thousand infants underwent hearing screening in the year 2010. 1,500 of these infants were diagnosed with hearing loss and taken to treatment program. For the purpose of rolling out the screenings, we have been performing procurement for the supply of hearing screening device for 200 hospitals where the screening is not performed.

Can your baby hear you?

According to the data of WHO, almost 10% of the world population consists of the handicapped. It is estimated that changes in the age distribution of the population, in the pattern of diseases and death causes, and also in the content of health services and increasing industrialism would change the handicapped rates in the world. In the protection from disabilities, screening is the method which is used for early diagnosis mostly and gives the best results. Congenital metabolic diseases which are frequently associated with kin marriage in Turkey and newborn hearing losses take an important place among disability causes.

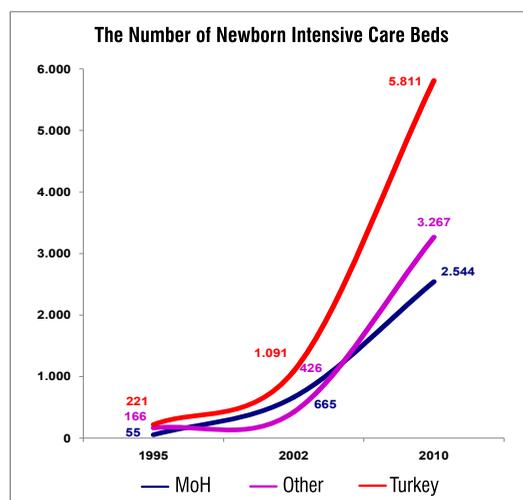
The language development of an infant stops when the baby is born with hearing loss and when this handicap is not discovered. However; the intellectual, social and psychological development of the infant slows down. Newborn hearing screening program was planned for early diagnosis of the disability in a way to ensure that the children born with hearing loss or those with hearing loss occurred in the postpartum period will take their place in the society as a psychologically and socially healthy individual without allowing the disability has an effect on the development of the child's speech and for increasing the awareness of healthcare personnel and society on the issue, as well.

The program had been introduced by the Prime Ministry's Administration for Disabled People in 2000 as a pilot project and was transformed into the national program in 2004 and its responsibility was undertaken by our Ministry in 2005. When we undertook the program in 2005, screenings used to be performed in 36 centers in 24 provinces (with a screening rate of 6.9%). Today, we have screening centers in all provinces as of 2010. We performed hearing screenings for 766 thousand infants in 2010. We diagnosed hearing loss in 1,500 of these infants and included them in the treatment program. Our screening rate reached up to 59.5% for 2010. Totally 451 newborn hearing screening units were established especially in 4 MoH-affiliated Child Hospitals, 51 maternal and child hospitals, 208 State Hospitals and 152 Private Hospitals, 36 University Hospitals where the hearing screenings are currently being performed.

e. Intensive Care of Newborns

The number of newborn intensive care beds, which was 665 in 2002, was increased to 2,544 by the end of 2010 in MoH hospitals. In the same period, the number of transport incubators rose from 158 to 540 and the number of ventilators rose from 252 to 684.

Almost one fourth of the deliveries used to be performed at homes in 2003 under unhealthy conditions.



Graph 10

According to the MoH data, hospital delivery rate was 93% in 2010. Our target is to increase the rate of hospital delivery to 99% by 2015. WHO officially announced in May 2009 that maternal and neonatal tetanus was eliminated in Turkey as a result of the deliveries at hospital environment and in compliance with hygiene rules.

Until yesterday our citizens were refused by the hospitals; however, today the families who constitute the poorest 6 % of the population are granted monthly allowance amounting to 17 TL for each pregnancy and baby on condition that they continue health checks during pregnancy and infant health checks after birth. Also, pregnant women receive monetary aid of 55 TL when they give birth at health institutions. Total amount of monetary aid extended since March 2004, the onset of the program, until the end of 2010 exceeded 2 billion TL.

We started “Conscious Mother, Healthy Baby Program” in 2004 with the aim of reaching all the mothers who give birth at inpatient treatment facilities. One of the objectives of this program is to provide consciousness for mothers on the fundamental issues related to their and their babies’ health before they leave the hospitals. Mothers are given basic information on baby care and health just after delivery, and they receive “Guide for Conscious Mothers and Healthy Babies”. We have reached almost five million mothers so far.

Another initiative under the Health Transformation Program is the “Guest Mother Project”. Within the scope of this initiative, Women with Risky Pregnancies are Hosted in Safe Environments. Under this project, pregnant women living in regions with risky seasonal conditions are invited to “Guest Mother Hotels/Guesthouses” for medical care and sheltering four weeks before they are due; the mothers who accept the invitation receive care before, during and after delivery and are taken back to their houses when the transportation conditions allow. We have provided this service to 6,229 mothers within 2010.

Under Health Transformation Project, we have improved maternal mortality rate significantly beyond comparison with the countries of the same income level (According to WHO statistics for 2010, the maternal mortality rate in countries of the high-middle income group is 91 per hundred thousand). The maternal mortality rate for 2010 was 16.4 per hundred thousand in our country. The average maternal mortality rate in OECD countries was 60 per hundred thousand in 1960. The progress made by the OECD countries in the field of maternal mortality in 23 years was achieved by Turkey in the last 8 years.

According to the results of Turkey Demographic and Health Survey, infant mortality rate, which was 28.5 per thousand in 2003, was reduced to 17 per thousand in 2008. According to MoH data, it was 13.1 per thousand in 2009 and became 10.1 in 2010.

The infant mortality rate, which is below 5 per thousand in the developed countries today, was around 30 per thousand in 1960s. The progress made by OECD countries in a period of thirty years was achieved by Turkey in the last 8 years.

Mothers Will Enjoy Their Motherhood...

Gradually Moving Towards the Target of Preventing Maternal Mortality...

Access to health services, utilization and quality of these services during pregnancy, delivery and antenatal period; and from a broader perspective, training of women, social gender equality and social conditions are associated with maternal mortality. In this sense, rate of maternal mortality is used as a multi dimensional indicator of development.

Maternal mortality covers the mortality of women during pregnancy, delivery and in 42 days' period following the birth.

WHO estimates that each year 529 thousand maternal deaths occur worldwide. 99% of maternal mortality is in developing countries. Average speed of maternal mortality is 400 per hundred thousand in the world. Maternal mortality occurs at an average rate of 870 per hundred thousand in Africa, 380 per hundred thousand in Asia excluding Japan, 91 per hundred thousand in WHO upper-middle income countries and 24 per hundred thousand in WHO European region.

Until recently, there were not sufficient data on maternal mortality rates in Turkey. The existent data were derived from demographic surveys and reflected the current status at national level. When the maternal mortality records of 615 hospitals in 53 provinces were monitored for a period of one year of 1997-1998, it was calculated that hospital mortalities were around 49 per hundred thousand. Adding the out-of-hospital mortalities, this rate was calculated to be 70 per hundred thousand.

We conducted the survey on Maternal Mortality in Turkey between the dates June 1st, 2005 - May 31st, 2006 in order to find out the maternal mortality rate in Turkey. Results were publicized on December 8th, 2006.

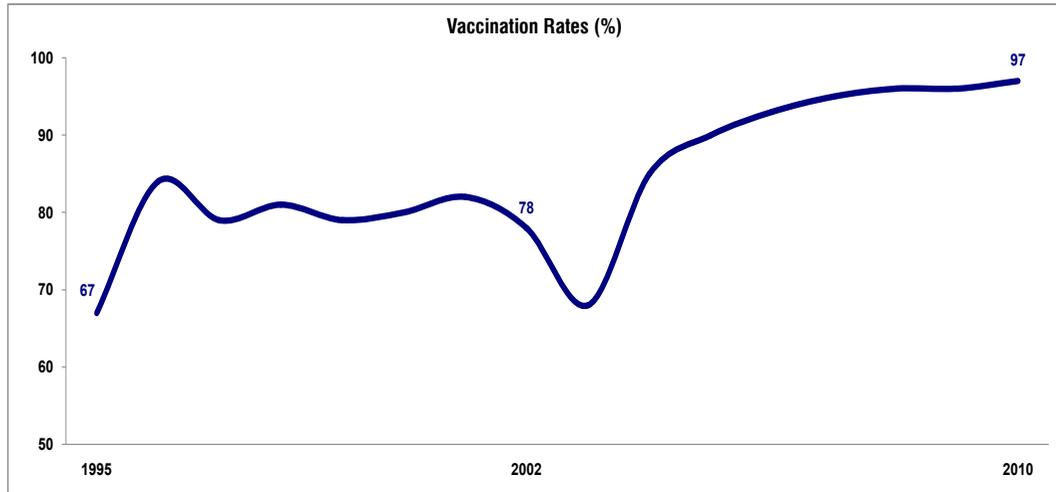
The afore-mentioned study is the first study of scientific competence in the Republic's history. The survey pointed out that the mortality rate for 2005-2006 was 28.5 per hundred thousand. For the first time, Turkey found out the current and actual maternal mortality figures with a large scale field study; and proved its success in the reduction of maternal mortality with mortality rates very close to European average.

Following the Survey on Maternal Mortality in Turkey 2005, maternal mortality data system which was revised based on the survey is used to collect data on maternal mortality in the age group 12-50 from 81 provinces. In this context, depending on these reliable data, maternal mortality rate for 2010 is 16.4 per hundred thousand.

3. Immunization Programs: Vaccines

Immunization service is an important primary healthcare service which is conducted for protecting the infants, children or adults by vaccinating them against diseases before the period when infection development risk at the highest level.

The fundamental objective in immunization services is to prevent the emergence of particularly the infant and childhood vaccine preventable diseases in the society and accordingly to prevent the deaths and disabilities caused by these diseases.



Graph 11

Effective and continuous vaccine implementations started in Turkey in 1930 with the law which made the implementation of smallpox vaccine compulsory. In the struggle against communicable diseases; the vaccination works which were conducted with teams established only in city or district centers at first due to the lack personnel and equipment; however, they were transformed into common and systematical vaccine implementations in 1963 when health services were socialized.

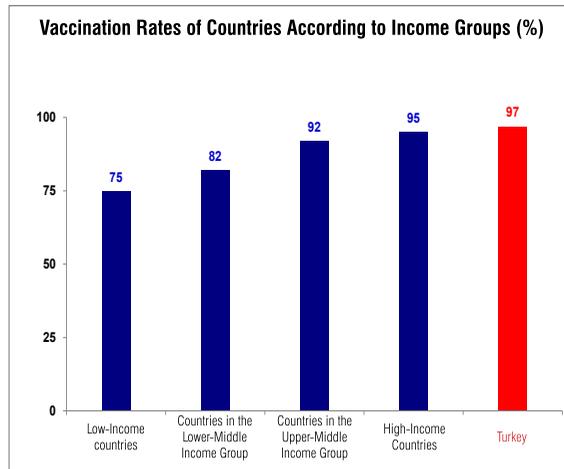
Later on, “Expanded Immunization Program” was adopted the purpose of “immunization of children against six vaccine preventable diseases until 1990” which is the objective of WHO in order to decrease vaccine preventable diseases and deaths caused by these diseases.

Expanded Immunization Program (EIP):

In accordance with the vaccination schedule, the main aim of EIP is to make every infant to be immunized against the diseases mentioned above. The term of “expanded” means that when the unvaccinated infants and children or those with incomplete vaccination are discovered, they will be vaccinated at that moment, and also it means that the implementation is performed in every place throughout the country in an equal manner.

Vaccination rate of the targeted child population was 78% across the country in 2002. This rate was even below 50% in some provinces of Southeastern Anatolia. We reached a vaccination level of 97% across the country in 2010. Even in those provinces with low vaccination levels formerly, vaccination level exceeded 85% in the same period.

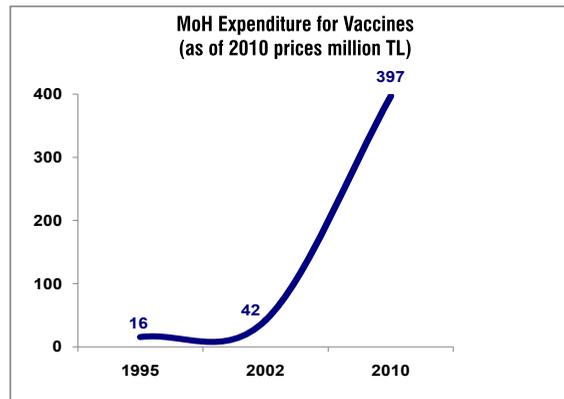
We have achieved these rates in recent years and when they are compared with those of the countries in the WHO European Region, it is seen that we have surpassed many countries. Moreover, the vaccination rate of combined vaccine in the third dosage for the countries that we are at the same level of income (upper-middle income group) is 92%. Our rate (95%) is higher than that of the countries in the high-income group.



Graph 12

Resources allocated to vaccination increased by only 2.6 folds during the course of 1995-2002; whereas it increased by 9.5 folds in the period 2002-2010.

EIP has a dynamism that is expanding with the inclusion of needed vaccines into the program. It is conducted and developed in the direction of the suggestions and scientific support of the Immunization Advisory Committee (IAC) which consists of academicians of vaccine-related fields within our Ministry. IAC meets minimum twice a year, discuss the current developments and give suggestions.



Graph 13

Vaccination had been performed against 7 diseases (diphtheria, pertussis, tetanus, polio, measles, hepatitis-B and tuberculosis) before the Health Transformation Program. We started to vaccinate for Haemophilus influenza type b (Hib), rubella, mumps in all health facilities in 2006.

Since the beginning of 2008, we have provided DaBT-IPA-Hib vaccines (diphtheria, acellular pertussis, tetanus, inactive polio virus and Hib vaccine) as in the form of pre-filled single syringe. In this way, we ensured vaccination against 5 diseases at a time. We have also ensured the filling stage of this state-of-art product to be fulfilled in Turkey.

In this way, we have provided opportunity for more vaccines to be performed with fewer injections. Immunization used to be ensured through 15 injections with 7 antigens until the age of 1 year; however, we decreased this figure to 12 injections with 11 antigens.

Moreover, we passed from whole cell pertussis vaccine to acellular pertussis vaccine through this change. Oral polio vaccine (OPV) used to be performed in the previous time and in addition to this, we have included inactive polio vaccine (IPV) into the program as well.

Through additional works, we have completed the hepatitis B and rubella vaccinations of the group aged under 18 years of age. We have completed the vaccinations for primary school cohort in 2005-2008, secondary school cohort in 2008-2009 and supportive vaccinations for risk groups identified since 2009. In this way, we have completed the 3-dosage vaccinations of those who were born between 1992 and 1998 and have become the first country that substantially completed the Hepatitis B vaccinations for the group aged both 18 and under 18 years of age (approximately 25 million people) in the WHO European Region.

We have completed the “Tetanus Vaccination Days” in 2006-2007 within the scope of the Maternal Neonatal Tetanus (MNT) Elimination Program which was initiated in 1994 and reviewed in 2005. Finally, it was confirmed that our country eliminated MNT countrywide as a result of the validation study that was conducted in Şırnak province under the consultancy of WHO in February 2009.

The latest innovation that we have done in 2010 in the vaccination schedule is the introduction of quadrivalent combined vaccine (including acellular pertussis vaccine) implementation for the first grades of primary schools for the prevention of acellular pertussis cases which are seen frequently during the primary school period.

In conjugated pneumococcus vaccination, we passed from 7-component vaccine to 13-component vaccine. We will perform the labeling, packaging, filling and formulation stages of this vaccine gradually in our country via technology transfer.

In this way, we were involved in the group of leading countries of the world according to the evaluation of vaccination schedule and rates. As different from many countries, we provide the vaccination services completely free-of-charge. Our evaluations have been going on for the inclusion of new vaccines into the vaccination schedule. We have been performing operations in collaboration with the leading vaccine companies for the purpose of ensuring the production of those vaccines in Turkey in the process of including new vaccines into the vaccination schedule.

The chart of National Immunization Program conducted in Turkey is presented below:

Table 1: Childhood Period Vaccination Schedule (December 2010)

| | At birth | End of 1 st month | End of 2 nd month | End of 4 th month | End of 6 th month | 12 th month | 18-24 months | Primary School 1 st Grade | Primary School 8 th Grade |
|---|----------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------|--------------|---|---|
| Hepatitis B | I | II | | | III | | | | |
| BCG | | | I | | | | | | |
| Diphtheria, Acellular Pertussis, Tetanus, Inactive Polio, Haemophilus Influenza Type B (Pentavalent Combined Vaccine) | | | I | II | III | | R | | |
| Conjugated Pneumococcus | | | I | II | III | R | | | |
| Measles, Rubella, Mumps | | | | | | I | | R | |
| Oral Polio | | | | | I | | II | | |
| Diphtheria, Acellular Pertussis, Tetanus, Inactive Polio (Quadrivalent Combined Vaccine) | | | | | | | | I | |
| Adult Type Diphtheria-Tetanus | | | | | | | | | I |

R: Repeat (Reinforcing)

We have improved the surveillance of the vaccine preventable diseases. Until 2005, we collected the polio-excluded vaccine preventable diseases as clinical diagnosis. However, we started to collect them as firm cases via laboratory support under the strengthening of communicable diseases surveillance.

We have been conducting works to roll-out adult vaccinations. We provide vaccines for defined risk groups (of adult pneumococcus, influenza, hepatitis A, chicken pox) under the SSI's Health Implementation Communiqué.

As a consequence, vaccination percentages in our country increased not only in number but also in respect of the vaccines that are used. In 2002, immunization was ensured against 7 antigens (6 antigens were used in 1980); however, we increased this number to 11 antigens by adding the modern vaccines into the schedule. We pay attention to the use of quality and safe products. We have brought the vaccination schedule in force in our country to the level of developed countries.

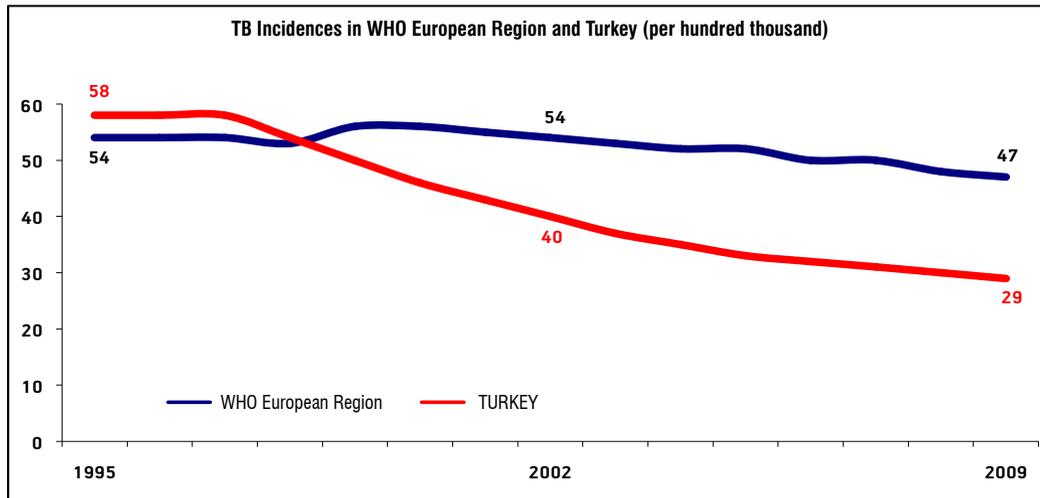
Table2: Vaccine antigens used in Turkey by years

| 1995 | 2002 | 2010 |
|---|--|---|
| Diphtheria Pertussis Tetanus Measles BCG Oral Polio (6 antigens) | Diphtheria Pertussis Tetanus Measles BCG Oral Polio Hepatitis B (7 antigens) | Pentavalent combined vaccine <ul style="list-style-type: none"> • Diphtheria • Acellular Pertussis • Tetanus • Polio • Haemophilus influenza type B Trivalent combined vaccine <ul style="list-style-type: none"> • Measles • Rubella • Mumps, Conjugated pneumococcus BCG Hepatitis B (11 antigens) |

4. Effective Struggle against Communicable Diseases

Tuberculosis

WHO implements a global control program for tuberculosis and in Turkey we have a parallel National Tuberculosis Control Program meeting the same standards.



Graph 14

Within the framework of the Millennium Development Goals, the WHO's "World Health Assembly Decision" No. 44.8 and "Stop Tuberculosis Strategy", goals of tuberculosis control across the world have been determined.

According to the "WHO Global Tuberculosis Control Report 2010" data, the incidence of tuberculosis in WHO European region, also including Turkey, was 47 per hundred thousand, whereas the incidence was 29 per hundred thousand in Turkey.

The goal of WHO for tuberculosis incidence is to halt the increase and reverse the incidence until 2015. The incidence rate of tuberculosis has decreased over the years in Turkey and it has dropped down to 29 per hundred thousand in 2009 from 58 per hundred thousand in 2002

On the other hand, the prevalence rate was 39 per hundred thousand in 2002 and we reduced this rate to 25 per hundred thousand.

Successful tuberculosis control activities under the Health Transformation Program enabled the "Millennium Development Goals" and "Stop TB Strategy Goals" to be reached before 2015. Moreover, Turkey has become a country capable of "following multi drug resistant cases for two years and report the treatment outcomes".

As a result, Turkey has reached and exceeded the 2015 targets set by WHO as of 2005.

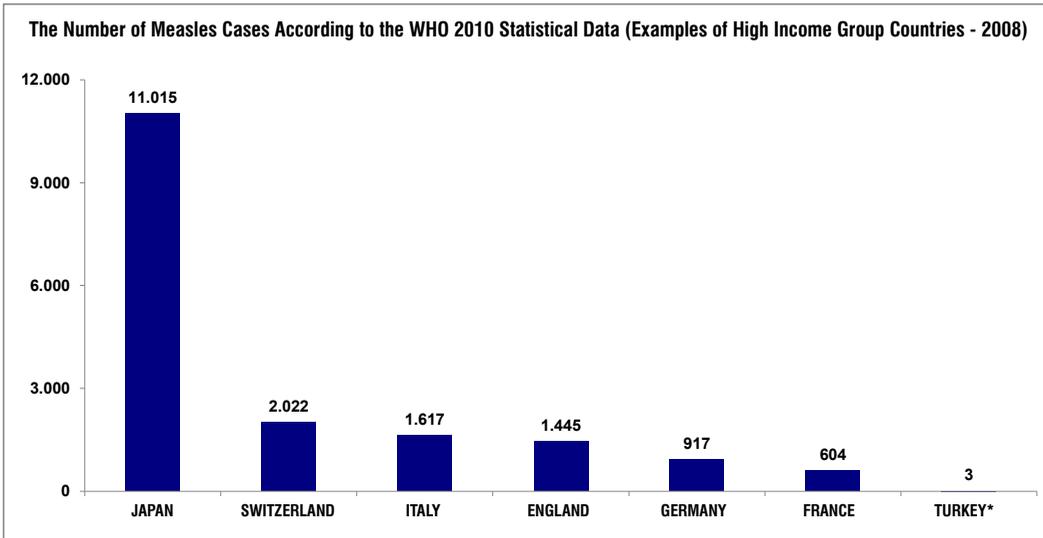
Measles

In parallel to the WHO European Region Measles Elimination goal, Turkey aims to eliminate measles and rubella and to achieve control over congenital rubella syndrome until the end of 2010 and has put this goal on the agenda.

Upon consideration of the high rate of morbidity and mortality from measles in Turkey and the developments and experiences in the World and the European region in the recent years, Turkey has initiated the “Measles and Rubella Elimination and Congenital Rubella Syndrome (CRS) Prevention Program” covering the period 2002-2010. The aim of the program is to eliminate measles and rubella, prevent CRS and maintain the current levels reached. Our target is to halt domestic virus circulation in Turkey until the end of 2010 and to prevent the import of new measles viruses from other countries into Turkey and prevent deaths from measles as of 2010.

Important developments have been achieved in routine vaccination, as one of the most significant strategies for elimination, and the vaccination rate has exceeded 90% which has been around 80% for years. Measles vaccination rates were 98%, 96%, 97%, 97% and 98% respectively for the years 2006, 2007, 2008, 2009 and 2010; and we aim to keep the vaccination rate above 95%. Considering the epidemiology of measles in Turkey, all children aged 9 months-14 years were vaccinated by a supplementary dosage of measles vaccine in the period 2003-2005 and the vaccination coverage reached 96%. It stands as the vaccination activity with the largest target group in the history of the Republic and Europe.

Following the supplementary vaccination activity, case and laboratory-based measles surveillance was initiated. The number of measles cases was 30,509 in 2001, but it was reduced with the vaccination activities and 34 and 3 cases were diagnosed respectively in 2006 and 2007. The number of domestic cases in Turkey was zero in 2008, 2009, 2010 and in the first six months of 2011. 115 were diagnosed in the last 3.5 years and all of them were imported cases (out of country) or related with imported cases. Thus, the period of elimination has started. Now, our target is to prevent the settlement of measles viruses coming from other countries in Turkey.



Graph 15

(*): All of the cases in Turkey were foreign-sourced (imported cases).

An Era of Measles-Free Turkey

We have realized the WHO's goal "Eradicating Measles" within the scope of measles control in our country. Now, our goal is to halt domestic virus circulation in Turkey.

Within this scope, we organized a widespread vaccination campaign between the years 2003-2005. Under the scope of School Vaccine Days, all students attending primary education were targeted in 2003, whereas pre-school children, first grade primary school children and the children aged 6-14 not attending school were targeted in 2005.

We vaccinated 18,217,000 children within the framework of the campaign. The vaccination rate of the campaign was 97%. The campaign was the vaccination activity with the largest target population in the history of the Republic and Europe.

As a result of the campaign and subsequent vaccination activities, the number of domestic measles cases, which was 30,509 in 2001, has been zero since 2008.

Considering the measles outbreaks seen in many European countries in recent years, the WHO postponed the European Region elimination target to the end of 2015. For this reason, our country, which has already reached the elimination target, is waiting for the other countries in WHO European Region for certification.

Malaria

The intensive studies of the Ministry in the field of communicable diseases have given fruitful results. Great success was achieved in the field of malaria control. The number of malaria cases was over 10,000 in 2002 and it dropped down to zero in 2010. Malaria, which is no longer a significant problem for our country, is in the process of elimination. Turkey, together with Tajikistan, was selected the most successful country in WHO European Region. The WHO will write out the success of Turkey as a “Success Story” in the 2011 Malaria Report by the European Region Office.

New Solutions for the Old Problem:

To Forget About Malaria for Good

WHO considers Malaria as the third important communicable disease after AIDS and tuberculosis. Within the framework of the WHO strategies and policies of the Ministry, we have taken brave and rational steps to eliminate malaria which was also an important public health issue in our country in the previous years.

Insecticide groups used in vector control for years have been changed; and we paid strict attention to the administration of more effective and proper drugs. Special working programs for vector control have been prepared in malaria-intensive places and these programs have been controlled regularly. Coordination has been ensured in malaria-intensive provinces. Joint activities and information exchange has been carried out. We gave weight to surveillance activities to spot malaria patients. We have attached great importance to the establishment of mobile teams to strengthen the surveillance and treatment services. Patients diagnosed with malaria have been treated individually. Temporary workers from regions with no malaria or a very low level of the disease have been assigned in malaria-intensive regions during the malaria season. Cooperation has been made with municipalities and relevant public institutions.

Thanks to the effective struggle, the number of malaria cases, which used to be 10,224 in 2002 was reduced down to zero as of the end of 2010.

“Malaria Elimination Program” was initiated in 2010. Through this program, we aim to eliminate domestic malaria in Turkey until 2012.

Communicable Diseases Notification System

We have rearranged the Communicable Diseases Notification System and introduced the implementation of the new system as of 2005. We have rearranged the diseases included in the system and their notification patterns.

With this study;

• We have updated the notifiable communicable diseases list. We have determined the number of notifiable communicable diseases as 51 which used to be 36.

- We have introduced standard case definitions; in this way, we have ensured the notification of infectious diseases to be in compliance with the case definition criteria specified in the published guideline as well as the solid findings (evidence based) which are obtained from the laboratory rather than clinical observations (opinion based).
- We have introduced groupings according to some characteristics in the notification of diseases;

We have established four groups for the notifiable communicable diseases and categorized them as Group A, B, C, and D. These groups and their notification properties are presented below:

Diseases in Group A: These are the diseases which have to be notified by all institutions in the health care system beginning from primary care. For the patients who were diagnosed according to the standard case definitions and laboratory criteria by the physician, the notification will be done according to the algorithm defined in the notification system.

Diseases in Group B: In accordance with various decisions particularly WHO's 1969 dated International Health Regulations, in this group, we have included the diseases to be notified when they are doubted.

Diseases in Group C: In this group, we have included the diseases which have to be notified by the secondary care and above level health institutions

Diseases in Group D: As different from other groups, it describes the notification of "infection agents". This is an important innovation which requires the inclusion of laboratories into the direct notification system for the first time. The purpose is to obtain information on the etiological agents of some communicable diseases which maintain their importance as a public health problem at present and to conduct further epidemiological researches on these where necessary.

- We have included some infection agents into the notification list, as well. We have ensured the defined infection agents to be notified from the relevant laboratories.
- We have ensured laboratories to take part in the system directly or indirectly.

We published the "Regulation on the Principles of Surveillance and Control of Communicable Diseases" on the Official Gazette (dated 30 May 2007) which we have prepared for the purpose of ensuring the harmonization of notification of communicable diseases with the Acquis Communautaire during the EU harmonization process.

Water and Food-Borne Diseases

For the control of water and food-borne diseases and for the prevention of outbreaks,

- For the purpose of ensuring the diagnosis and notification of the agents of water and food-borne diseases in the notification system, we have included them into the notifiable agents of Group D.
- We initiated the daily surveillance of diseases with diarrhea throughout the year as of 2010. We have introduced the works of early warning and response system (EWSR) for the purpose of monitoring water and food-borne diseases.

Sexually Transmitted Diseases and HIV/AIDS

As the MoH, we conducted a project titled HIV/AIDS Prevention and Support Program of Turkey for a period of 2.5 years initiated in 2005 in cooperation with the Global Fund. Under this Project, we worked in cities where HIV/AIDS patients are predominantly reside. We established Voluntary Counseling and Testing Centers. We prepared guidelines. We delivered trainings on counseling and testing to health professionals working for these centers. We also conducted training projects so as to increase access to preventive HIV/AIDS services, to raise awareness and to provide information.

With the aim of providing scientific support to activities conducted for the control of Sexually Transmitted Infections, we set up “Scientific Committee of Sexually Transmitted Infections (STI)” for the first time in the year 2010. The aim of the Scientific Committee is to ensure that current developments on the struggle against STI are transposed into our national policies; to provide technical and scientific support on diagnosis, treatment and follow-up protocols; to recommend efforts to raise social awareness and to make recommendations to National AIDS Commission in the field of HIV/AIDS. Within the Scientific Committee, we set up sub-committees on “Standard Diagnosis and Treatment for HIV/AIDS and other STI”, “Surveillance”, “Voluntary Counseling and Testing Centers”, “National Action Plan Update, National Objectives and Strategies Update, Legislation Update”, “Monitoring, Evaluation and Raising Awareness”.

Activities Conducted for Pandemic Preparedness

a. Preparation of a National Action Plan for Pandemic Influenza

We have conducted preparedness activities for possible pandemic influenza in our country in line with the recommendations and guidance provided to Member States by WHO since 2004. There is a committee of 60 people representing academicians and several agencies and organizations. Our National Pandemic Plan is one of the most comprehensive and well-prepared examples in European region.

b. Preparation of Provincial Pandemic Plans and Pandemic Preparedness Exercise

As set out in the Pandemic Plan which also functions as a framework for the preparation of local plans, preparation of Provincial Pandemic Plans by Provincial Health Directorates was completed within the same year.

We built a website, www.grip.gov.tr , so as to strengthen communication both in interpandemic and in pandemic periods and to explain the policies and implementations of the MoH in an effective manner.

c. Avian Influenza Response Activities

Becoming a current issue in the global agenda since the end of 90s, avian influenza has been one of the main motives of pandemic preparedness activities conducted in our country. The first outbreak among poultry in our country was detected in Balıkesir/Kızıksa in 2005. In cooperation with the MARA, we prevented the disease from affecting our people as a result of our efforts. On the first days of 2006, it was found out that severe respiratory tract infections detected in Ağrı were due to avian influenza. 4 out of 12 human cases of avian influenza unfortunately passed away in this period. We developed effective measures that we had taken. Although there had been several other animal outbreaks detected until 2008, we avoided the occurrence of new human cases. Within this period, our efforts in cooperation with the MARA were closely followed by international health authorities and appreciated as case studies.

d. H1N1 Virus Response Activities

We started to work upon reporting of suspicious influenza cases detected in Mexico in March, 2009. We convened Pandemic Monitoring Board and assessed the overall situation. We set up a Pandemic Executive Committee among the members of Pandemic Scientific Committee with the aim of helping them execute their works at more frequent intervals in quick decision-making processes.

With the occurrence of pandemic H1N1 cases, we put into practice measures delaying the entry of the disease in our country. We achieved to keep the number of cases at the lowest level during summer months by maintaining these measures. Within this context, we introduced health checks at land border gates, airports and seaports. With the mentioned time saving efforts, we had meetings for the procurement of pandemic H1N1 vaccines and made initial settlements with relevant companies on the procurement of 43 million doses of vaccine. However, we only used 3 million doses of vaccine. We also stored an additional 3 million doses of vaccine as a precautionary measure. We paid a total of 32 million Euros for 6 million doses of vaccine we procured. We did not make any further payment other than that. We continued to struggle against H1N1 cases that started to escalate in our country in autumn months. We prepared and distributed informative banners, posters and brochures for our citizens, we prepared informative video clips and communicated them to the public by means of national channels. We steered the works to limit the effects of the diseases by preparing case management algorithm, establishing H1N1 polyclinics, increasing the capacity of intensive care units and building diagnostic capacity with new laboratories.

Despite all efforts, 656 people unfortunately passed away due to pandemic H1N1. Modeling and seroprevalence studies conducted both in pandemic and post-pandemic periods show that 15-25% of the society was affected by the disease.

Seasonal Influenza Control Activities

We procured vaccines every year starting from the year 2006 for the vaccination of health professionals with high risk of influenza. We distributed them to provinces and vaccinated health professionals free-of-charge. With the inclusion of influenza vaccine in Health Implementation Communiqué, we vaccinated those over the age of 65, those living in nursing homes; adults and children with chronic pulmonary and cardiovascular system diseases including asthma; adults and children with any chronic metabolic disease including diabetes mellitus, chronic renal dysfunction, hemoglobinopathy or immunodeficiency or receiving immunosuppressive therapy and children and adolescents between 6 months and 18 years of age receiving long-term acetylsalicylic acid treatment.

5. Crimean Congo Hemorrhagic Fever (CCHF) Disease

We had blood and serum sample analyses performed at Pasteur Institute in 2003 upon reporting of cases progressing with suspicious clinical manifestation to our Ministry. CCHF was confirmed as a result of the analyses.

We set up a Scientific Committee of Crimean Congo Hemorrhagic Fever under the MoH after the diagnosis of the disease. We took measures required for the disease and determined the works to be performed from then on. The same Committee regularly convenes every year and makes recommendations on necessary assessment and plans.

From 2003 when it was first detected until now, Crimean Congo Hemorrhagic Fever Disease has continued to pose an important public health problem in our country between April and October with the increase in the temperature due to activation of ticks which are carriers and contaminants of the diseases.

The area affected by the disease has expanded in recent years and sporadic cases are reported from almost all regions of our country.

It is important to avoid human contact with ticks for prevention.

Within the framework of reducing tick population down to an acceptable level in places where the risk of disease exists, periodic disinfection of livestock, primarily bovine animals, by the MARA is ongoing.

Within the struggle against CCHF:

- We distributed tick removal cards to be used in case of tick attachment. We envisaged that the use of this card by the public will increase their awareness about the immediate removal of ticks from the body.
- Patients are needed to be referred to a higher level healthcare facility in cases which require a closer follow-up and treatment. We set up regional centers in 16 provinces for the patients to be referred.

- We formulated immune serum to be used for the treatment of patients. We use them for the treatment of some patients under this study. According to the results of this study, we aim make the use of serum widespread.
- We established a working group to investigate the efficacy of ribavirin. Preparations for this study are ongoing.
- We detected the areas where CCHF cases occurred and analyzed tick population in these areas. We found out that ticks carrying disease factor belongs to Hyalomma family.
- Moreover, we drew a map of our country showing areas with ticks and CCHF cases based on this data.
- We built a web-based reporting system for reporting CCHF disease. We continue to conduct case-based surveillance.

6. Struggle against Chronic Diseases

In the twentieth century, factors such as increase in the level of education and income in the world, change of dietary habits, control of communicable diseases resulted in the increase of life-expectancy at birth.

Although longevity is something desired, it has led to an increase in non-communicable diseases (chronic diseases). The increase in the ratio of elderly population to pediatric population has resulted in the shift of health problems in society from childhood diseases to non-communicable diseases seen in the elderly population.

Chronic Diseases are the Root Causes of Mortality in almost All Countries: It has been estimated that 35 million people died from chronic diseases in 2005. 60% of all mortalities is due to chronic diseases. Unless any measure is taken, it is estimated that 388 million people will die from chronic diseases in the next 10 years.

The Poorest Countries are the Most Affected Ones: While only 20% of mortality caused by chronic diseases occurs in high income countries, 80% of mortality caused by chronic diseases occurs in low and middle income countries, where most of the world population lives.

Risk Factors are Extensive: Frequent and preventable risk factors are underlying reasons for main chronic diseases. Most of chronic disease mortality occurring in men and women at all ages in every corner of the world can be explained by these risk factors. The most outstanding ones of these risk factors are:

- Unhealthy diet,
- Physical inactivity,
- Smoking.

Although there are many diseases in this disease group, risk factors and protection strategies are common for most. All these risk factors are influenced by economic, social and political environment, gender and behaviors. Thus, it is easy to make suggestions, but it is difficult to put measures into practice. Although it is believed that habits like healthy diet, regular physical activity and cessation of smoking are proper, they are among habits that are difficult to change. This is why health promotion activities are important.

Preventive care is an effective approach in the struggle against non-communicable diseases. For instance, cardiovascular disease risk is reduced by 50% two years after cessation of smoking. Moreover, blood pressure and high level of cholesterol can be prevented with measures such as encouraging healthy diet and reduction of salt consumption.

Application of available information has ensured the achievement of significant progress in the life expectancy and quality of life of middle-aged and elderly people in several countries. For instance, mortality rate of cardiac diseases went down to 70% in the last thirty years in Australia, Canada, England and the USA. Middle income countries like Poland have also made significant progress in recent years. Such achievements are fulfilled with the implementation of comprehensive and integrated approaches for both the society and individuals and concentrating on underlying common risk factors and some special diseases. Total number of lives saved thanks to these achievements is very high. 14 million deaths from cardiovascular diseases were prevented only in the USA from 1970 until 2000 according to the estimations of the WHO.

Struggle against risk factors causing chronic diseases could only be successful through national policies and long-term strategies. Non-communicable diseases must be included in the agenda of all layers of the society. Practices such as healthy diet, increase in physical activity, and reduction of tobacco use require the participation of all sectors. All sectors have roles and responsibilities in the protection and promotion of health.

Considering the effect of chronic diseases on lifetime and quality of life and increased level of pecuniary and intangible costs, the significance of programs to change lifestyle will be better understood. Taking risk factors under control, reducing diseases requiring hospitalization, expensive therapeutic and surgical procedures including other fundamental measures, and decreasing labor loss and deaths associated with such diseases will contribute in the improvement of health status and economic burden.

WHO, in 2008, adopted a draft plan covering the years 2008-2013 for the prevention and control of non-communicable diseases and set out the following objectives:

Objective 1: To enhance priorities given to non-communicable diseases within the scope of global and national development and to integrate the policies of all government units with the prevention and control of such diseases.

Objective 2: To develop and strengthen national policies and plans for the prevention and control of non-communicable diseases.

Objective 3: To increase responses to reduce shared modifiable main risk factors for non-communicable diseases, tobacco use, unhealthy diet, physical inactivity and harmful alcohol use.

Objective 4: To encourage conducting researches for the prevention and control of non-communicable diseases.

Objective 5: To promote partnerships for the prevention and control of non-communicable diseases.

Objective 6: To monitor non-communicable diseases and their determinants and to evaluate improvement at national, regional and global level.

We developed action plans and struggle approaches with the aim of protecting health and preventing early deaths within the scope of chronic diseases control program and we planned and started to implement national programs primarily on cardiovascular diseases, diabetes, chronic respiratory tract diseases.

WHO indicates that the rate of chronic diseases rapidly increases and that they will impose the largest work load in front of health care systems in the future. Moving from this point, we reviewed our structure for chronic diseases and established two new departments in order to work on chronic diseases and health promotion.

a. Prevention and Control Program for Cardiovascular Diseases in Turkey

Deaths from cardiovascular diseases have a tendency of decreasing in developed western countries whereas they increase in developing countries. However, the number of cardiovascular diseases increase in developed countries with the aging of society and the elongation in life expectancy, and the burden associated with these factors is not reduced.

Cardiovascular diseases have a significant share in the disease burden created by non-communicable diseases and the positive thing about these diseases is that they are mostly “preventable”. WHO reports that prevalence of cardiovascular diseases could be reduced by half with the control of blood pressure, obesity, cholesterol and smoking.

EU and WHO opened “European Heart Health Charter” for signature with the aim of significantly reducing cardiovascular disease burden in European Region and reducing unfair and unequal practices among countries.

National signing ceremony of European Heart Health Charter was held on December 25, 2007 in Ankara and the Charter was undersigned by the Minister of Health, Prof. Recep AKDAĞ and nine presidents of specialist associations.

What needs to be done within this framework is to develop prevention strategies for “preventable” cardiovascular diseases and to make plans for individuals and the society as well as providing treatment options for those who are diseased. Moreover, a comprehensive prevention and control program for cardiovascular diseases should include high-risk strategy approaches including human resources planning for secondary and tertiary prevention, technology, medical device management, medication management, rehabilitation, palliative treatment and home care services, emergency treatment services, surgery, surveillance and researches, financing and intersectoral cooperation and future practices.

Within this framework, MoH, in cooperation with non-governmental organizations, prepared and put into practice “Prevention and Control Program for Cardiovascular Diseases in Turkey, Strategic Plan and Action Plan for the Risk Factors” which is an integrated, community based program designed based on three main risk factors (tobacco, obesity and physical inactivity).

Our aim with “Prevention and Control Program for Cardiovascular Diseases in Turkey, Strategic Plan and Action Plan for the Risk Factors” is to prevent cardiovascular diseases by reducing main risk factors in the struggle against cardiovascular diseases and to ensure control in this area for a healthier Turkey. The plan aims to ensure the following so as to prevent main risk factors for cardiovascular diseases in Turkey;

- Reducing the use of cigarette and other tobacco products,
- Preventing unhealthy dietary habits and overweight and eliminating physical inactivity,
- Informing the society on cardiovascular diseases,
- Ensuring that people pursue a high quality life in terms of health by increasing awareness in society, making positive and lasting behavior changes on main risk factors.

Having completed “Prevention and Control Program for Cardiovascular Diseases in Turkey, Strategic Plan and Action Plan for the Risk Factors”, we felt a need for a national program involving other approaches for secondary and tertiary prevention of cardiovascular diseases.

We drafted “Strategic Plan and Action Plan for Secondary and Tertiary Prevention in Cardiovascular Diseases” including high risk strategies for secondary and tertiary prevention as a complementary to the first plan prepared.

This plan comprises the following main points:

1. Risk Factors, Protection and Prevention
2. Organization, Human Resources and Training
3. Emergency Treatment Services and Cardiopulmonary Resuscitation (CPR)
4. Medication Management
5. Device Management
6. Pediatric Cardiology
7. Cardiovascular Surgery
8. Cerebrovascular Diseases-(Stroke)
9. Rehabilitation, Palliative Treatment and Home Care Services
10. Surveillance, Researches and Future Practices
11. Intersectoral Cooperation
12. Monitoring and Evaluation

We updated “Strategic Plan and Action Plan for the Risk Factors” under this study and modified it again within “Strategic Plan and Action Plan for Secondary and Tertiary Prevention in Cardiovascular Diseases”.

b. National Prevention and Control Program for Diabetes

WHO estimates that more than 180 million people across the world are diabetic and 1,1 million people died from diabetes in 2005. 80% of deaths from diabetes occur in low or middle income countries. WHO indicates that deaths from diabetes will increase more than 50% in the next 10 years unless action is urgently taken.

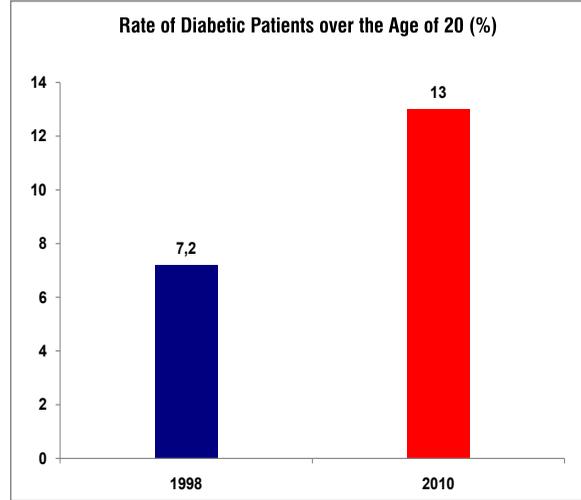
International Diabetes Federation (IDF) predicts that there are 285 million diabetic patients in the world. Considering the fact that 7 million people is added on to the diabetic patient population very year, it is expected that this figure will exceed 350 Million in the next 10 years. According to the estimations of 2010, prevalence of diabetes in the adult population between the ages of 20 and 79 is 6.6% in the world. This figure is calculated to be 7.8% in the year 2030.

Disease manifestations also change as the level of development increases in our country. While communicable diseases were priority in health agenda 20-30 years ago, non-communicable disease groups have gained significance today. Morbidity and mortality of non-communicable diseases have increased by elongation of lifespan, changing life styles and stress factor, dietary habits and other environmental factors.

Diabetes is the main reason for many chronic diseases as well as being a chronic disease itself. Therefore, it will be a proper approach to consider diabetes both a chronic disease and a risk factor. We drafted “Diabetes Prevention and Control Program, Strategic Plan and Action Plan of Turkey” with active participation of all relevant sectors.

Prevalence of type 2 diabetes in our country was found to be 7.2% according to Turkish Diabetes Epidemiology Study (TURDEP-I) conducted in 1998. According to preliminary results of TURDEP-II study conducted in 2010, it was seen that diabetes prevalence in the adult population reached 13%.

Such an increase in the rate explicitly puts forth the significance and scale of the problem.



Graph 16

Response Activities in the field of Diabetes

We established diabetes polyclinics/centers in 15 provinces in 2003 (Afyon, Bartın, Niğde, Nevşehir, İçel, Aksaray, Balıkesir, Edirne, Erzincan, Kayseri, Kırıkkale, Kahramanmaraş, Malatya, Muğla, Ordu and Van) under “National Diabetes Program”. This program is a result of rearrangement of policies on the struggle against diabetes and diabetes management in parallel with relevant strategy and action plans of the WHO and in line with current struggle techniques. We completed the strategy document aimed at the objective of diabetes control and held workshops on middle and long term action plans on 15-20 February 2010 with a high level of participation and we formed the final report in March 2010.

Studies We Conducted in Cooperation with Non-Governmental Organizations

- Turkish Diabetes, Hypertension, Obesity and Endocrinologic Diseases Prevalence Study (TURDEP-II)
- Turkish Foot of Prospective Urban and Rural Epidemiological Study – PURE Study
- Diabetes Control Project of Turkey (“You Steer Diabetes” Campaign)
- Trainings on Updates in Diabetes and Case Discussions
- Diabetes Discussions Training Project
- Diabetes 2020: Vision and Goals Project

c. National Chronic Respiratory Disease (Asthma-COPD) Prevention and Control Program (2009–2013) Action Plan-GARD

With all relevant agencies and institutions in our country, we joined in the GARD-The Global Alliance against Chronic Respiratory Diseases, established under the leadership of the WHO to struggle against chronic respiratory diseases. The 3rd Plenary Assembly of GARD was held in Istanbul on May 30-31, 2008. “GARD Action Plan of Turkey”, which was presented in this meeting as a draft, is the first action plan prepared in the World on this matter and we continue to implement this plan actively. GARD Turkey structuring is also a model practice as it brings together public and civil society under an effective struggle platform. We conduct the program especially in coordination with National Tobacco Control Program and carry out strategic actions for the control of COPD and asthma.

We carry out the program based on five main points:

- We built a web page at the address www.saglik.gov.tr/GARD which is available at the website of the MoH for having the program adopted by the public and introducing thereof. We broadcast on television channels short movies prepared with the aim of raising awareness on chronic respiratory disorders. We established GARD Provincial councils so as to complete structuring of GARD Turkey and they started functioning.
- We prepared, published and distributed a book titled “Approach to Air Pollution and Climate Change of Turkey from the Point of Health” within the scope of preventing disease development.

- We prepared and published “In-Service Training Module – Trainer Guide for Primary Care Physicians in the Diagnosis and Treatment of Asthma and Chronic Obstructive Pulmonary Disease” under the activities of early detection and prevention of disease progression. We made in-service training plans for the year 2011.
- We held Home Care Workshop between 24-26 November 2010 within the context of effective treatment of diseases, prevention of complication development, delivery of rehabilitation services for these diseases, organization and expansion of home care services and we prepared a report thereon.

All these works are actively monitored under monitoring and evaluation and both workgroup activities and monitoring and evaluation works are addressed at the annual meeting of General Assembly. We held II. Ordinary General Assembly participated by provincial representatives and all stakeholders in Ankara on 16-17 December 2010 and we updated the action plan.

We also conducted researches on awareness of physicians about chronic respiratory diseases and smoking, and awareness of the public about chronic respiratory diseases. Analyses are ongoing. We completed preliminary preparations for the national research on chronic diseases that is planned to be conducted in 2011.

d. New and Effective Approach in the Struggle against Cancer: Early Diagnosis Saves Lives

Cancer is the second most common cause of death after cardiovascular diseases both in our country and other countries of the world; therefore it is an important public health issue. Particularly considering the fact that cancer is a preventable disease in which screening helps avoid deaths and early treatment significantly improves quality of life, prevention becomes far more important.

The most significant type of cancer which may be prevented by primary prevention is the lung cancer; and it is the most prevalent type of cancer both in Turkey and the rest of the world. Successful struggle against tobacco will help eradicate particularly lung cancer and other types of cancer such as larynx, bladder, pancreas, cervix, pharynx and oral cancers.

In early 2000s, six million people developed cancer in the world each year; however 24 million people will be down with cancer until the year 2030 if cancer continues to spread with such speed. 17 million people will die of cancer in the same year; and 75 million people will be living with cancer by the year 2030.

Similarly, one hundred fifty thousand people developed cancer in Turkey each year; however four hundred thousand people will be down with cancer in the year 2030 if the cancer continues to spread with the current speed. Two hundred and fifty thousand people will die of cancer in the same year; and almost 1 million people will be living with cancer by the year 2030.

d.1. Cancer Registration

We abandoned the method of registering all cancers from all places, which has been proven to be ineffective. We established new registration centers representing different regions and we achieved significant improvements in determining the incidence of cancer in the last couple of years.

The number of active cancer registration centers established in eight provinces in 2008 was increased to 10 by 2010 and thus we included almost 25% of the whole population in follow-up in terms of cancer development. Turkey has become an important country with this coverage range in cancer registration in its region and in the world. Two of our registration centers were accredited by International Agency for Research on Cancer (IARC) of the WHO and the data were published in the book titled “Cancer Incidence in Five Continents”. The quality of our cancer data was routinely evaluated every year and raised to international standards. On the other hand, some developing countries take Turkey as a model considering the point we have reached in cancer registration system. Public Health Specialist from John Hopkins Cancer Institute made an on-site visit in November 2010 and appreciated the current situation of cancer registration and decided to publish a scientific study pointing Turkey as a model for many other countries.

Cancer prevalence of our country shows an evident increase when compared to many developed countries of Europe and the world. Cancer prevalence is similar among different regions of our country.

d.2. Cancer Prevention:

The most effective cancer control policy is primary prevention, namely eradication of the factor causing cancer. There are activities of the MoH on this matter conducted at national and regional levels:

- **Nationwide Cancer Prevention Activities:**

Our country has become one of the countries that best implement MPOWER strategy which is suggested by the WHO as a result of activities on indoor smoking and tobacco control.

A significant activity undertaken by the MoH on the struggle against tobacco in 2010 was that the MoH started to cover the costs of smoking cessation units and smoking cessation treatments. We established smoking cessation polyclinics at KETEMs (Cancer Early Diagnosis, Screening and Training Centers), one of which is at least available in every province of our country and we completed certified trainings of physicians. We provide smoking cessation medications free-of-charge to our citizens as well as consultancy services.

Another important problem is obesity. Unfortunately Turkey precedes European countries on this matter. We initiated obesity screenings at all KETEMs.

Another important issue that has been discussed significantly in recent years is electromagnetic waves, mobile phones and base stations. In order to cease the concerns of our citizens on this matter, we published an implementing regulation in cooperation with 5 ministries. Moreover, we set up an advisory board on electromagnetic waves under the roof of the MoH so as to provide the most accurate information to the public in a short time.

- **Regional and Scientific Activities:**

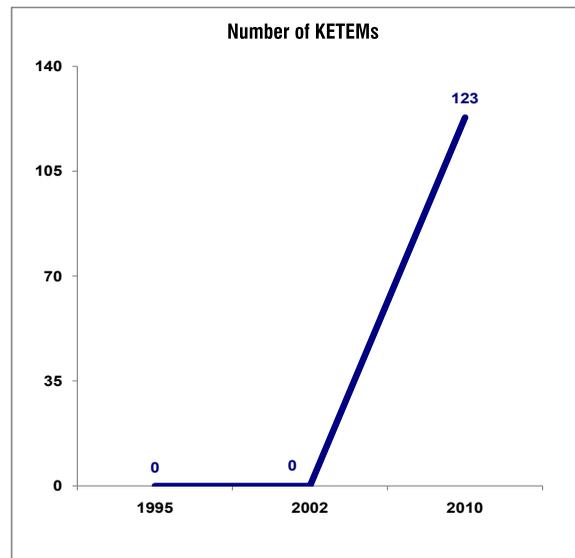
In addition to nationwide cancer control activities, regional cancer control activities are ongoing both at scientific and institutional levels. We can list our activities as follows: Kocaeli Dilovası Cancer Follow-up Studies, Post-Chernobyl Cancer Researches in Eastern Black Sea Region, Nevşehir Mesothelioma Early Diagnosis Studies, Studies on Heavy Metal Accumulation in Turkish Waters, Study on Biphosphenol Level in Baby Bottles, Researches on Early Diagnosis of Gastric Cancers and Oncogram Development.

d.3. Cancer Early Diagnosis, Screening and Training Centers (KETEMs)

Moving from the principle “Early diagnosis saves lives!”, KETEMs carry out screening and public training programs for breast, cervical and colorectal cancers.

Our objectives are:

- To reduce deaths from breast, cervical, colorectal and skin cancers and to increase the health level of the society,
- To raise awareness about cancer in the society by providing relevant information to the men and women included in the target group for screening,



Graph 17

- To increase the percentage of screening in the target population,
- To raise awareness in the whole society,
- To increase the number of people who underwent screening,
- To reduce the number of cancer cases diagnosed at advanced stage,
- To reduce new cancer cases.

Screening services are provided free-of-charge to citizens unable to pay for the service.

d.4. Cancer Treatment and Palliative Care:

Any type of modern and state-of-the-art opportunity available in developed countries in the field of cancer treatment is also available in our country and there is no need to go abroad for cancer treatment any more. The MoH now uses detailed plans which are prepared in cooperation with all units for every type of investment. Therefore, we listed all investments to be made in the next 10 years under Oncology Vision. All treatments of cancer patients are provided free-of-charge in our country.

Palliative care services in primary health care have been ignored for years in our country. Our new international project, introduced under the name of “Pallia-Turk”, is closely followed by many international organizations. This Project, which was introduced with home care units in the year 2009, will continue with the integration of family medicine in 2011. We will commence certified courses on palliative care nursing in 2011.

d.5. Patient Advocacy and Awareness Programs:

We pay great attention to patient rights in recent years. With the support of the MoH, 24 associations of cancer patients and patient relatives came together and formed a federation. We integrated officials of this federation working under the name “**Hand in Hand against Cancer Platform**” into Cancer Advisory Board of the MoH. Thus we provided officials of the federation the opportunity to directly communicate any of their problems to the MoH officials. Therefore patients have taken an active role in the development of health policies. Besides, we delivered almost hundred trainings titled “Patient Schools” at every corner of the country. Many questions were answered by the experts during these trainings such as “What is Cancer? How should we eat when we have Cancer? What is Chemotherapy?”

Under the Health Transformation Program, we accelerated our cancer awareness activities. We have conducted a national awareness activity for a year with the slogan of “We are aware of it, we will beat cancer” and this initiative has made an overwhelming impression. We also built a website titled “kansernedir.net” where our people can find answers to the questions in their minds.

We also continue to conduct our awareness activities at international platforms. Turkey chaired Asian Pacific Organization for Cancer Prevention in 2010. The MoH became an official member to Union for International Cancer Control (UICC) in the same year. We also became a member to International Agency for Research on Cancer (IARC). Turkey will be the Research Center for Eastern European Region of IARC. We also chaired Middle East Cancer Consortium (MECC) in 2008 and became the Co-President of Black Sea Countries Coalition on Breast and Cervical Cancer Prevention in 2010.

We published “International Handbook of Cancer Prevention 2010” detailing cancer problems and cancer control activities ongoing in Asia pacific countries.

e. Mental Health

We drafted mental health action plan in line with the “National Mental Health Policy” prepared in 2006 with the purpose of improving mental health services.

e.1. Community-Based Mental Health Services:

The aim of community based mental health services is to provide psychosocial support to patients with severe mental disorders (schizophrenia progressing with ability loss due to its destructive effect on cognitive, executive and social skills and similar psychotic disorders and chronic mental health diseases such as mood disorders) and to ensure the delivery of their follow-up and treatment integrated with home care services.

We decided to establish centers that will function under the responsibility of mental health specialists, which are affiliated to mental health hospitals of the MoH and to general hospitals having psychiatry clinics or mental health specialist.

We designate the centers considering the demographic structure and epidemiologic characteristics of the population they will serve. We may establish more than one center in provinces where needed. Services of the center are limited to the region where it will deliver service.

The Center identifies patients with severe mental health disorders residing in the area they serve for by using the records kept by family physicians, psychiatry clinics, district governorship, provincial directorates of Social Services and Child Protection Agency and other agencies and organizations; and create its own database.

We identify psychiatric and social profiles of patients who continue with their treatments at the center by using data forms and scales and archive patient files in compliance with the relevant legislation after the end of service.

We collect and evaluate necessary data considering demographic characteristics of the population served with the aim of making necessary interventions and service plans.

If the patient followed moves to somewhere which is under the responsibility of another mental health center, we send necessary information and documentation about the patient to this center which is located in where the patient has moved.

We allocate a patient transportation vehicle to be used for the transport of the team assigned to deliver mobile services by the Center or of patients when needed.

The staff of the center consists of one mental health and disease specialist, one social worker, one psychologist, one nurse, one driver, one occupational therapist and/or one qualified instructor, one medical secretary, administrative and technical staff, one cleaner and security staff.

We inaugurated a mental health center in May 2008 in order to serve as a model for the transition to community based mental health service model at Bolu İzzet Baysal Mental Health and Diseases Hospital and started to develop the system. We decided that community based mental health model should be extended nationwide based on the positive results of the pilot project. We drafted an ordinance on the operations of these centers to be started. We also worked with SSI so that our patients could make use of these services under social security. We have already put 12 centers into service. Once the said centers are extended nationwide, we plan that one mental health center will serve for a population of 150-200 thousand people.

Application and admission of the patient to the center:

- The center identifies patients with severe mental health disorders in the area under its responsibility and contacts with these patients or their families by phone.
- Necessary information on the center and practices is provided and the patient is invited to the Center.
- Patients who are unable to come to the Center are visited at home and their health conditions are assessed and they are invited to the centers.
- Patient's condition, who will receive service, and the service to be delivered are decided at the Center.
- Follow-up and treatment plans are drafted and patients and patient relatives are informed about them.
- Patients, who could not be brought to the Center although they are visited at home, are assessed by a relevant specialist at home and then the patient is either invited to the Center or followed at home based on a program in coordination with home care health service unit according to the result of assessment.
- Working hours and procedures to be applied are settled for the non-physician personnel and tasks are distributed notified to whom it may concern.
- Patients in person or patient relatives may request to utilize services of the Center.



Those are the views from Bolu Province, İzzet Baysal Mental Health Hospital, Community Mental Health Center.

- In case of such a request, the condition of the patient is assessed in terms of suitability with the services delivered and treatment responsibility by the mental health specialist who diagnosed and planned the treatment of the patient or by a specialist in charge at the center.
- Patients or patient relatives, who have applied, are given a reasoned explanation if the result of application is negative.
- When the admission of the patient to the center is approved, this situation is documented by a health committee certificate. Family physician is informed about the patient admitted to the Center.
- The scope, duration, plan and program of the service to be delivered at the Center is decided by the treatment team presided by the responsible physician and patients and patient relatives to receive the service are informed.
- In case patients or patient relatives do not approve the treatment plan suggested by the Center, risks that may occur are explained to patients or patient relatives if the treatment plan is not applied.
- A written statement is asked if the service is still not accepted. If written statement is not given, the relevant staff makes an official report of the situation.

In addition to opening community based mental health centers, we adopted a national strategy to provide service for patients with mental health problems at general hospitals rather than establishing isolated mental health hospitals. We made a planning for beds and started to increase the number of beds throughout the country which are allocated to patients with mental health problems. We appointed a psychiatrist to each province in line with this strategy. We opened psychiatry clinics in each province, with at least 5 beds in the smallest province. As a result of all these activities, the public has now access to mental health services in the province they live, which used to be given in 8 regional hospitals in the previous years.

Preventive mental health services constitute a significant part of mental health services, especially for risk groups. In this context, the MoH conducts programs focusing on special groups.

e.2. Response Services for Child Abuse and Child Neglect

Childhood conditions should be considered as important precursors of adult mental health disorders which may be more important than the risks experienced in adulthood. Physical, mental and social health of an individual for a lifetime is closely related to brain development. Brain is mostly developed during pregnancy and in the first five years of life.

In addition to brain development, skills, learning capacity, social skills and character of an individual, which will be used for a lifetime, are also mostly developed in these years. The society should first be aware of the significance of rapid development process of the brain and support the development of children in this period so as to preserve the health status of individuals for a lifetime; to raise more skillful, intelligent, successful and capable individuals; to reduce increasing level of violence and criminality; to reduce socioeconomic disparities down to a reasonable level. Therefore, it will prove to be useful in the long term for individuals, society and health care systems to support mental health of children and adolescents. Considering this sensitivity and needs, we set up “Branch Office of Child and Adolescent Psychiatry” in 2005 with the aim of enhancing child and adolescent health, preventing mental health problems and integrating these services with Primary Health Care Services.

We started to spread out the “Program on Supporting Psychosocial Development of Children (PSPDC)” throughout the country, which was conducted as a pilot project in Bursa and was initiated in 2005 with the aim of serving for the age group between 0-6. The aim of this program is to integrate methods supporting psychosocial development with primary health care services, to support the child during pregnancy and in the period of 0-6 years of age when the development is the fastest and to make sure that healthy generations are raised in physical, social and mental terms. Infants and children may face some risk factors in the period of development as is known. Under the program, risk factors monitored during this period are poverty resulting in malnutrition, growth retardation, mental disorders of parents, violence, and child neglect/abuse.

Integration of primary health care services with monitoring and evaluation of mental and social development of the child, we monitor pregnant women and children at primary health care with a biopsychosocial perspective. We provide trainings on the mentioned program to midwives, nurses and physicians working for primary health care. Trained midwives/nurses interview with the mother and father starting from the pregnancy period and monitor the child; provide fundamental information on nutrition, family planning and harms of smoking and observe the risks. Midwives/nurses who determine cases with risks will refer these cases to physicians. The physician will apply the treatment plan and if needed refer the patient to secondary health care or organizations that could provide support to the patient. We trained 8.374 physicians, 22.023 midwives/nurses working at primary health care between the years 2006 and 2010 under the program. Trainings are still ongoing. All family physicians and family healthcare personnel will have received these trainings by the end of 2012. We also provided service to 623.040 pregnant women, 1.026.415 infants, 1.467.737 children and 373.502 fathers in the same year with this program.

Protection of our children in every aspect is the biggest investment we will make in our future. Child abuse and neglect are at the top of traumatic fields that damages children the most. Child abuse is described as conditions that the child is made to face by those who are responsible for looking children or by other adults and these are conditions which are not accidental and may impede physical, emotional, mental or sexual development of the child or harm physical or mental health of the child. Failure to meet necessary requirements for the health, physical or psychological development of the child is defined as “child abuse”.

Child abuse and neglect are very serious social problems which are not truly known. It is also a health problem bringing an important level of economic burden on the society with physical, mental and psychological disorders it leads to because of workforce loss, long-term and repetitive investigations and treatment.

The MoH started to work so as to eliminate shortfalls in the field of services provided to children who are abused or neglected and first addressed the children who are abused.

It is known that abused children are assessed by law enforcement officers, judicial authorities and health care organizations separately. The child is exposed to reiterated questions on abuse and is psychologically affected by this in a negative way. Moreover, people interviewing children at these organizations are mostly those who are not trained on interviewing with a view to be cautious about the mental status of the child.

We started to work in January 2010 so as to eliminate these shortfalls with the participation of the Ministry of Justice, MoE, Social Services and Child Protection Agency (SSCPA), Ministry of Interior and the Presidency of Religious Affairs under the leadership of the MoH. We set up “Child Protection Center” (CMC) in Ankara as a pilot center. The aim of “Child Protection Center” is to serve for public institutions while handling sexual abuse cases; to meet all requirements of these institutions by making them fully available for the child and to protect the child from a traumatizing process for the second time within the system.

The mentioned center started to operate on 18 October 2010. There are 1 Forensic Medicine Expert, 3 Social Workers, 2 Psychologists, 1 Psychological Counselor and 1 Nurse at the Center and a lawyer assigned by the prosecutor and the bar association assesses the case at the center. Representatives of Social Services and Child Protection Agency and law enforcement are also present at the center and procedures to be applied concerning the child, including social assessment, are executed via the Center. The child is not referred to another organization within judiciary process and traumatization for the second time is thus minimized. We will develop the structure at this center and make it widespread across the country until the end of 2011.

e.3. Response Services for Autism

Another field we work in is the struggle against autism which appears during childhood and significantly affects the development of the child. Autism is defined as a developmental syndrome appearing before the age of three and characterized with significant deterioration in social interaction and communication and notable limitation of interests and tasks.

An intensive special training program is recommended in the early period in the treatment of autistic patients with unknown etiology. Primary health care services which are mostly utilized by the public in the early diagnostic period are important. We developed child protection protocols with the aim of ensuring monitorization of all children between the ages of 0-6 within the framework of specific standards and we included “guidelines on monitoring and supporting development” module, which will enable early diagnosis of autism, into child protection protocols. In this module, we screen for signs such as eye contact that will help us make an early diagnosis of autism.

Within the framework of the “program on supporting psychosocial development of the child”, we provide trainings on early detection of any developmental disorder including autism to midwives, nurses and doctors working at primary health care closely with mothers and children.

Cases considered to be risky or suspicious at primary health care should be assessed by the relevant specialists without losing time. Therefore we inaugurated the first “autism excellence center” of Turkey which will provide training in this field, assess the case both in psychiatric terms and in terms of comorbid auditory and genetic problems as well as delivering services which are very important in rehabilitation processes under a single roof, such as speech therapy. We completed trainings of the staff who will work at the Center. The Center also functions as a training clinic.

Another progress we have achieved in the field of diagnosis is that we translated diagnostic tests into Turkish, which are considered to be golden standards in the diagnosis of these diseases in the world (ADI and ADOS). Coordination between the MoH and Ministry of National Education is required in the fields of rehabilitation and training. Early special training is the most important treatment rehabilitation method with proven efficacy in autism. With an intensive rehabilitation-training provided in early childhood (ages of 2-6) for children who are diagnosed with autism, we aim for ensuring that these children could continue formal education with their peers in the future. We continue to cooperate with the Ministry of National Education on this matter.

f. Elderly Health

According to data of 2000, population over the age of 65 constitutes 5,37% of the general population and they constitute 7% of the general population according to results of Address-Based Population Registration System in 2010 and the population over the age of 60 constitutes 10% of the general population (Turkish Statistical Institute-TURKSTAT). Life expectancy at birth gradually increases in Turkey. Life expectancy at birth was 70.4 years in 2000, however life expectancy at birth increased up to an average of 73,7 in total in 2009, increasing up to 71,5 and 76,1 for men and women respectively.

We translated into Turkish, published and distributed “Diagnosis and Treatment Guidelines on Elderly Health” prepared for primary health care physicians with the contribution of specialists working in this field in our country and “Age-friendly Primary Health Care –PHC- Centers Toolkit” so as to improve the quality of health care services for the elderly who have special health requirements and to meet these requirements at the level of primary health care services. We prepared the books titled “Elderly Health Guidelines for Trainers” which is to be used for training the elderly on health and “Nutrition for the Elderly” which is a guideline for a healthy diet for the elderly. The MoH is also one of the active stakeholders of the “National Action Plan on the Status of the Elderly and Aging in Turkey” prepared under the leadership of SPO and SSCPA.

7. Health Promotion

Individuals must have adopted healthy life habits in order to sustain a healthy life. Individuals who are well-nourished with a proper diet; having regular physical activity; abstaining from bad habits that may harm his/her health and having health checks to keep healthy, will be able to further promote his/her health.

Health promotion is a process where people are enabled to increase their control over their health and promote their health. Health Promotion is described as the integration of health training provided with the aim of making behavioral changes in the protection and promotion of health with all types of support given on the basis of organization, economy and environment.

The first strategic objective of the Strategic Plan indicating the objectives of the MoH between the years 2010-2014 is “to protect the community from health-related risks”. In the subparagraph of this strategic objective, the following objectives are emphasized: to enhance the control capability of citizens over their health and to ensure their active participation in decision-making processes on matters that may influence their health so as to protect individual’s health and to enhance health level. Under health promotion, we support promotion, informing and awareness-raising activities as well as programs on protection from risk factors.

Health promotion activities:

- help to reduce early mortality and disability,
- address leading risk factors and underlying health determinants,
- help to strengthen sustainable health care systems,
- place health care in the heart of a large-scaled development agenda.

It is important to develop behaviors that will ensure a healthier life at any point in life. Important steps to this end are raising awareness in such a way to develop healthy life behaviors in the society (reduction of tobacco and alcohol use, prevention of obesity, promotion of physical activity, hygiene, healthy dietary habits etc.) and increasing level of knowledge, ensuring that individuals assume responsibility on their health care and participate to decision-making processes.

We aim for the adoption of a lifestyle that will ensure the sustainability of mental, physical and social well-being by raising awareness of individuals and gaining sufficient level of knowledge to make an accurate decision on their health and improving factors and social determinants that influence health directly and indirectly.

All factors that may influence the course of life have a potential of making positive/negative impact on the access to a healthy life. Therefore, it is needed to raise awareness of other sectors apart from healthcare on these matters and to activate multisectoral health responsibility. Starting from the moment when health care services are needed, elimination of obstacles is needed to ensure access to all services needed in proportion to the needs, in line with the needs, equitably and on time. The obstacles before the access to services required are bureaucratic, financial and regional differences, lack or imbalance of service supply and being among the disadvantaged group.

The ultimate aim of health care policies to be implemented is to increase the level of health care and therefore welfare and happiness level of the society. While trying to achieve this aim, the top priority principle is to prevent people from becoming sick and to meet their expectations for a healthy life. The level of achievement for this aim will be demonstrated by the progress that will be achieved on fundamental health indicators. The most tangible indicators to this end are the reduction of maternal and child mortality and increase in the life expectancy at birth. Participation of individuals in decision-making processes on their health care, respectability, effective communication and access to social support networks during treatment constitute important milestones of a people oriented system.

The aim of health promotion is to ensure that a large proportion of the society implements proper health behaviors. Health promotion practices improve personal choices and social responsibilities of individuals and it means the process where people will ensure the promotion of their own health.

Activities of the MoH under “Health Promotion”:

- Identification of priority problems and priority groups including adolescent health, oral and dental health, alcohol use, maternal and child health, research and evaluation, training and capacity building, physical activity, public relations and public awareness campaigns, drug addiction, obesity, mental health, healthy diet, healthy behavior development, health promoting hospitals, health promoting workplaces, healthy schools, healthy cities, use of tobacco products, reproductive health, elderly health etc. and risk factors (tobacco, alcohol, medication, unhealthy diet, obesity, physical inactivity, high level of cholesterol, high level of blood pressure, hyperglycemia etc.),
- Monitoring data developed by the MoH, primarily “Health Promotion” indicators and planning, conduction, analysis, reporting of necessary researched, offering a solution and sharing all outputs with all relevant sectors and stakeholders,
- Ensuring the planning and conduction of necessary screening programs including risk factors in the field of Health Promotion,

- Regular evaluation of the extent of adoption and implementation of national plans and policies within the context of approved objectives by monitoring data developed by the MoH, primarily Health Promotion indicators,
- Planning, conducting, reporting and sharing the results with all sectors and stakeholders of “impact evaluation” studies including the impact of several programs on the improvement and protection of public health including the aspects related to health care treatment expenses,
- Developing evidence based policies and comprehensive health care strategies in the field of Health Promotion,
- Advocating and supporting the development and implementation of national, regional, local and international policies to promote healthy behaviors and taking measures,
- Providing consultancy service for the MoH units and other ministries, public institutions and organizations, local governments and non-governmental organizations etc. in the field of Health Promotion,
- Ensuring coordination and cooperation with international organizations (WHO, EU, OECD, Centers for Disease Control and Prevention in the United States etc.) and conduction of joint health promotion programs,
- Conducting national health promotion programs in cooperation with public institutions and organizations, local governments, universities and other formal education institutions, non-governmental organizations, businesses, etc.,
- Cooperating with national and international health care organizations and non-governmental organizations in order to monitor the activities carried out in the field of Health Promotion
- Carrying out activities on training and empowering of the society and patients by means of social marketing techniques by developing a large-scaled social coalition and using the mass media when needed in order to raise awareness on health promotion,
- Ensuring necessary communication with media, national/international organizations, non-governmental organizations etc. under the activities in the fields of Health Care and Health Promotion and enabling participation and access to the target group,
- Running informative campaigns for health care personnel and the society.

7. a. Struggle against Tobacco, Alcohol and Substance Addiction

The Biggest Step in the Fight against Risk Factors; Smoke-free Air Zone

Smoking is a significant public health problem in our country. Smoking leads to more than fifty health problems starting from the prenatal period and resulting in mortality during childhood and adulthood. It is one of the leading preventable causes of disease and mortality. 1,3 billion people in the world and 16 million people in our country smoke and 80% of these people is in developing countries. Around 100.000 people in our country die from diseases caused by tobacco use.

Our country ranks the third in Europe and seventh in the whole world for tobacco consumption; and the addiction rate is calculated to be around 50% among adult men. Tobacco consumption plays a major role in many diseases, particularly cancer. Minister of Health Recep Akdağ signed the “Tobacco Control Framework Agreement” in 2004 prepared by the WHO and already undersigned by 171 countries; and the “National



Tobacco Control Program”, prepared in line with the Agreement in question, was declared by our Prime Minister in December 2007. In accordance with the program, amendments were made in the Law No.4207 on the Prevention and Control of Harmful Effects of Tobacco Products and new regulations were introduced for the consumption of cigarette and tobacco products. There has been a 95% support to the measures, the implementation of which started on May 19th, 2008 and which aims the prevention of passive smoking.

Turkey ranks the third in Europe and the sixth in the whole world for tobacco control activities and the comprehensiveness of national regulations and sets an example for other countries.



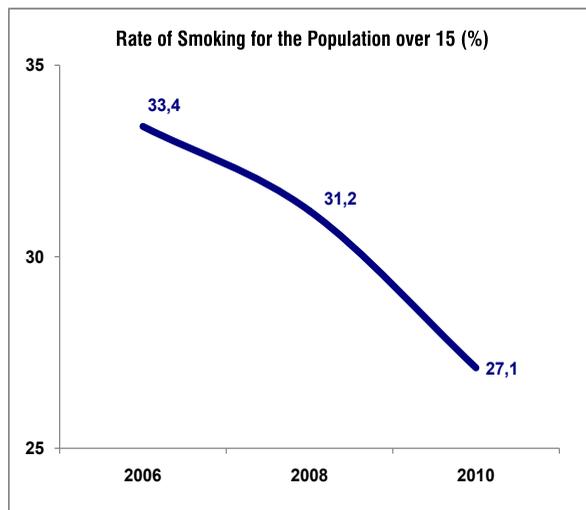
WHO awarded H.E. Minister of Health in 2008 and H.E. Prime Minister of the Republic of Turkey in 2010 for the “Struggle against Smoking”.

The MoH makes efforts to establish smoking cessation polyclinics and increase their number and to disperse medication for smoking cessation free-of-charge under the control of physicians for current cigarette addicts as well as taking measures to prevent starting to use tobacco and tobacco products. The MoH also took ALO 171 smoking cessation hot line into operation in October 2010.

According to measurements of indoor air, the particle amount was found to have decreased;

- by 57 - 97% in public areas
- by 75% at hospitals
- by 89% at shopping centers
- by 78 - 90% in private businesses.

Specialists of Marmara University investigated admission rates of 11 diseases including asthma attacks, upper and lower respiratory tract infections to hospitals in Istanbul, affiliated to the MoH, between 19 July 2009 – 1 July 2010. There was a reduction of 20% in admissions due to respiratory tract infections and asthma attacks.



Graph 18

Source : TURKSTAT 2010

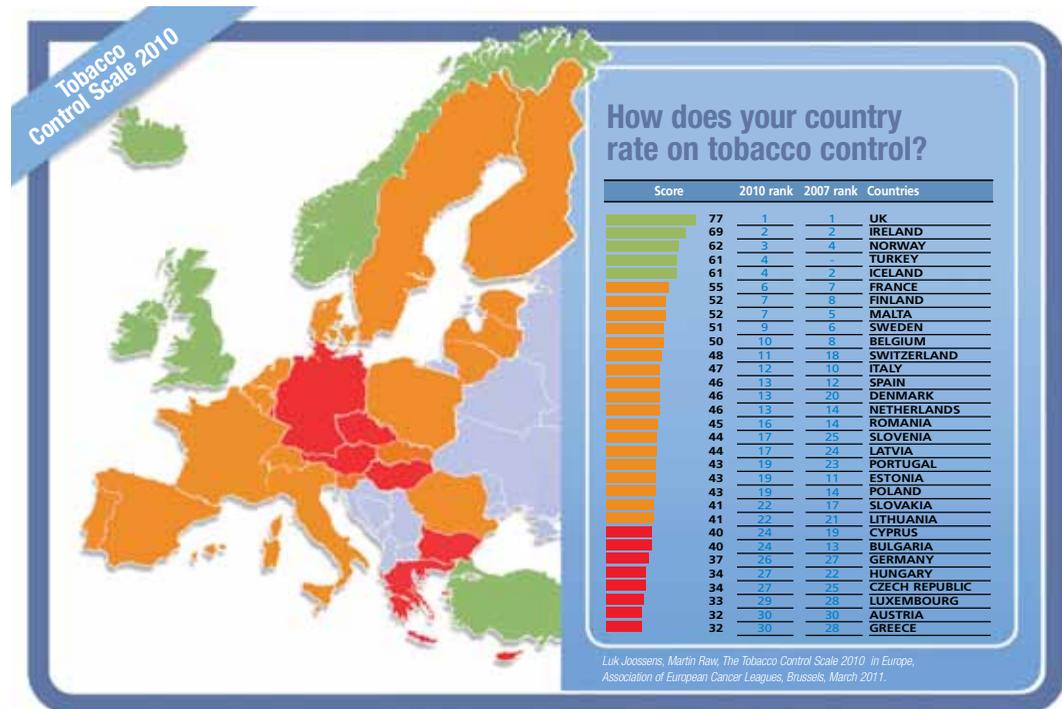
have ceased smoking at home although it is not prohibited. Global Adult Tobacco Survey was reproduced in 2010. The rate of smokers dropped down to 27.1% in the year 2010.

Applications to 112 Emergency Health Care Services in Ankara in 2010 due to smoking-related diseases were reviewed by Turkish Society of Public Health Specialists (HASUDER). Emergency applications due to cardiac and respiratory diseases and stroke especially in men have reduced after the enforcement of the law as expected. There has been a reduction in applications due to cardiac and respiratory diseases in women.

The rate of smokers dropped by 2,2% from 33,4% to 31,2% in the general population when the results of Global Adult Tobacco Survey conducted in the years of 2006 and 2008 by Turkish Statistical Institute (TURKSTAT) were compared. An average of 7% of smokers have quitted smoking and it has been found out that tendency to quit smoking tobacco and tobacco products among youngsters is more common. 44% of the employees have started to smoke fewer cigarettes during working hours. 19% of smokers

“MPOWER A Policy Package to Reverse the Tobacco Epidemic” was prepared by the WHO in the light of international experience with the aim of functioning as a guideline for countries in their efforts to lead the way for tobacco control. Our country is one of the leading countries in that it has put all components of MPOWER strategy into practice.

Luk Joossens, Belgian specialist of European Cancer League, mentioned at European Tobacco Congress held in Amsterdam on 27-29 March 2011 that Turkey ranks the fourth among 30 European countries. Turkey was appreciated by its successful practices in the field of tobacco control.



We have completed 98 components out of 100 of MPOWER policy package by now. We are aiming to complete the remaining two components (having pictorial warnings on at least 50% of the surface area of cigarette packages and prohibiting “brand sharing” as a type of advertisement) and to become the first country in enforcing the whole policy package of MPOWER in the world.

Alcohol: the Reason for Many Social Problems

Alcohol is the cause of 60 different diseases and one of the main reasons of social problems such as suicide, domestic violence, driving under the influence of alcohol. Strategic objectives of Health Transition Project include the protection of children and youngsters from the harmful effects of alcohol. We drafted National Alcohol Control Program and Action Plan to this end. We aim to raise the awareness of society on protection of children and youngsters from harmful effects of alcohol with National Alcohol Control Program. We also plan to put into practice regulations on identification and treatment of addicts and sales of alcohol products.

7.b. Healthy Diet and Physical Activity for a Healthy Future

Struggle against Obesity

Obesity is defined as “abnormal or excessive fat accumulation that presents a risk to health” by WHO. 15-18% of body weight in adult men and 20-25% in women is composed of adipose tissue. Obesity develops as this rate exceeds 25% in men and 30% in women. Obesity in the world gradually increases like an epidemic.

Despite gradually increasing obesity epidemic, “WHO European Ministerial Conference on Counteracting Obesity” was organized by the WHO Regional Office and hosted by Turkish government on 15-17 November 2006 in Istanbul and solution offers on obesity epidemic were discussed during the conference.

The mentioned conference was held with the participation of 500 participants including senior officials of relevant Ministries such as agriculture, education, sports, transportation and social security and of public sectors, representatives of non-governmental organizations, specialists, representatives of international organizations and members of the press. During the conference participated by H.E. the Prime Minister of Republic of Turkey Recep Tayyip ERDOĞAN, Minister of Health Prof. Recep AKDAĞ and the WHO Regional Director for Europe Dr. Marc DANZON undersigned “European Charter on Counteracting Obesity” on behalf of participant countries.

Obesity is a chronic disease associated with many factors which reduce the quality of life. Today there is no other disease in the world which increases so rapidly and affects individuals and communities. Therefore, policies are developed and national action plans are drafted on the struggle against obesity across the world.

Mostly caused by malnutrition and physical inactivity, obesity is the second most common reason for preventable deaths following smoking. Obesity related health expenditures constitute 2-7% of all health expenditures in developed countries.

We prepared “Healthy Diet and Active Life Program of Turkey” with the aim of struggling effectively against this disease, which has an increasing prevalence in our country and affects our children and youngsters; enhancing the level of knowledge of the society on the struggle against obesity and encouraging them to adopt healthy diet and regular physical activity habits and thus reducing the prevalence of obesity and obesity related diseases (such as cardiovascular diseases, diabetes, hypertension, musculo-skeletal system diseases) in our country.

Several public institutions and organizations, universities, private sector and non-governmental organizations etc. have carried out different programs, projects and training activities. With this program, we aim to include activities conducted in our country into a planned schedule and make them measurable, traceable and to achieve collaboration.

“Healthy Diet and Active Life Program of Turkey” embraces a large-scale and multisectoral approach.

National program involves 4 main headings, 11 goals, 21 objectives, 37 strategies and 115 activities. The scope of the program involves achievement of political will and determination at national and local level; raising awareness of the society on adequate and balanced nutrition and physical activity by using different tools under preventive health care services; taking measures for the diagnosis of obesity and monitoring and evaluation activities.

Under the mentioned program;

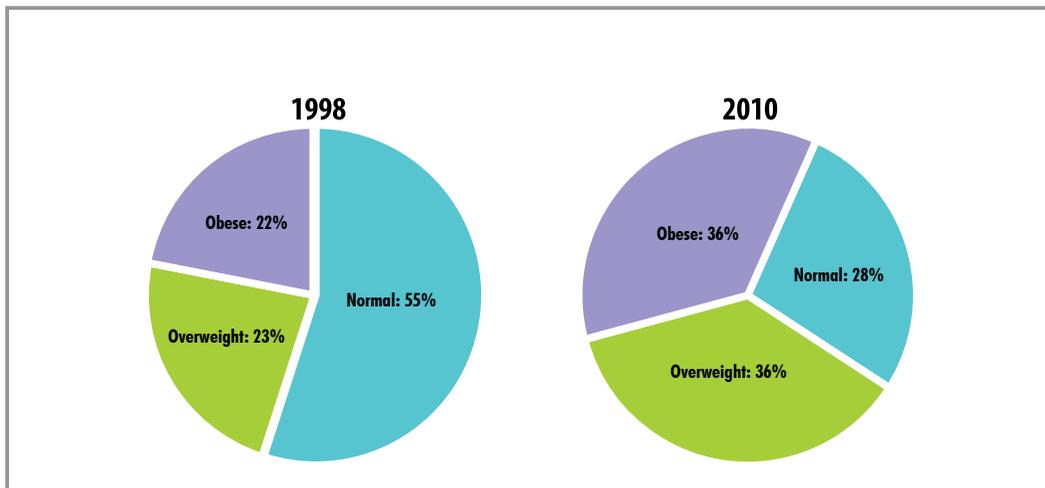
- We set up Executive Board on the Struggle against Obesity, Scientific Advisory Board and Coordination Committee under the MoH and Adequate and Balanced Nutrition and Active Life Board under Governor’s Offices in 81 provinces. We also established Obesity Units under Health Directorates.
- We also included relevant data on Obesity Monitoring into Family Medicine Data System with the aim of identifying obesity status of individuals and thus we gained access to data of individuals like Body Mass Index (BMI), waist circumference, hip circumference.
- We completed field studies of “National Nutrition and Health Survey” that will put forth the current situation in the fields of nutrition and health care across Turkey, enable the evaluation of local and regional differences and function as a reference point for programs to be sustained. We obtained parallel results to the results of TURDEP according to preliminary report of the survey.

Table3: Percentages of Body Mass Index in All Age Groups

| | Very Thin | Thin | Normal | Slightly Overweight | Overweight | Very Overweight |
|-------------------|-----------|------|--------|---------------------|------------|-----------------|
| 0-5 ages | 5,6 | 10,3 | 57,7 | 17,9 | 8,5 | |
| 6-18 ages | 3,9 | 14,8 | 58,5 | 14,4 | 8,4 | |
| 19 ages and above | | 2,2 | 33,4 | 34,7 | 27,0 | 2,8 |

Source: National Nutrition and Health Survey 2010

- We ran the “National Project on Monitoring Growth in School-Age Children” at elementary schools as an indicator of adequate and balanced nutrition in cooperation with relevant Ministries and universities. We are planning to publish the report on this project.
- Salt consumption in our country is three folds higher than the recommended level. Excessive salt consumption causes the increase of blood pressure and plays an important role as a risk factor in the occurrence of many diseases such as osteoporosis, renal diseases, gastric cancer and primarily cardiac diseases and stroke. We introduced a national program in 2010 so as to reduce salt consumption for gradually lowering salt consumption level in our society with a multidisciplinary approach in protection of public health and prevention of disease occurrence.
- We started to work on the production and consumption of whole wheat bread which plays an important role in healthy diet.
- We put a website into service, www.beslenme.saglik.gov.tr, which is prepared based on scientific facts in order to provide a source of information on nutrition for the society. Our citizens are able to access the most accurate and updated information on nutrition on this website.



Graph 19
Source: TURDEP I (1998), TURDEP II (2010) Study

8. A New Era in Emergency Health Care Services

Emergency healthcare service is an important public health matter. It is very important to reach the place of incident, to perform the first intervention and to ensure transportation to a health institution as soon as possible in cases of emergent diseases and injuries.

We live in an era when “112 Emergency Health Care” services are provided extensively not only in cities but also in villages. We deliver the air ambulance service free-of-charge, which is provided in the most developed countries of the world. No healthcare institution, including private hospitals, charges a fee for diseases that require emergent or intensive care.

In the last eight years, our capacity to transport emergency patients has improved by six folds. We are fully aware that in emergency cases, every second is important. We can now reach 93% of the cases in cities in the first ten minutes and 96% of the cases in the first thirty minutes in rural areas.

The number of fully equipped ambulances for 112 Emergency Health Care, which was 618 by the end of 2002, has reached 2547 by the end of 2010. Our ambulances have improved not only quantitatively but also qualitatively. All our ambulances were brought to compliance with the EU standard TS-EN 1789. The number of emergency stations, which was 481 by the end of 2002, reached 1460 today. The target has been accomplished in Emergency Health Services. We are now capable of providing emergency services in every corner of the country.

194 “ambulances with snow pallets” are at the service of the public as of June 2011 in regions with transportation difficulties due to the geographical and climatic conditions. We also added 15 more ambulances carrying multiple patients, where at least 4 injured patients could be carried while lying, in cases of major accidents and social events.

Moreover, we established emergency response teams with motorbikes for replacement in cases the standard ambulances fail to reach the place of incident due to insufficient street width and traffic congestion. Experienced personnel who received training on advanced motorcycling skills were assigned in these teams. Motorbike teams continue to provide services with 50 motorbikes in metropolitan cities.

Four sea ambulances, which were put into service in the year 2007, continue to serve in Istanbul, Çanakkale, Balıkesir and Gökçeada.

The air ambulance system, available only in developed countries, was introduced in Turkey in 2008. We deployed 19 ambulance helicopters in 15 city centers to reach out to the whole country as of June 2011.



Since April 2010, we also started transporting emergency patients or injured citizens inside Turkey or from abroad by our two ambulance planes. One of the ambulance planes is turbojet and for long distance flights, whereas the second one is a turboprop propeller driven plane (capable of landing at airports with short runways). Turbo jet ambulance plane has a flight range of 5.300 km. and turboprop ambulance plane has a flight range of 3.500 km and both planes are equipped with medical equipments for transporting two lying patients and making any medical intervention under intensive care conditions. Newborn babies could also be transported thanks to transport incubators available at the planes. Ambulance helicopters have a flight range of 450 km and serve for the transport of emergent cases between hospitals. They descend to highways in cases of car accidents, respond on the scene and transport people to hospitals. They also rescue people who are in urgent need of help when stuck in a mountain. As of December 2010, the number of patients transported by ambulance helicopters and ambulance planes was 7.229 and 606 respectively with a flight duration of 14.525 and 1.758 hours. By the end of December 2010, 38 citizens were transported to Turkey and 2 foreign tourists were transported to their countries. We will add three more planes to our fleet by the end of 2011.

While the number of citizens utilizing 112 Emergency Health Care Services was 350 thousand in 2002, 2,1 million people utilized the service in 2010. This number represents a six fold increase in comparison to the figures of 2002.

Only 20% of the citizens living in rural areas benefited from 112 Emergency Health Care Services in 2002, whereas today all citizens living in rural areas utilize this service.

Healthcare Organization in Disasters and National Medical Rescue Teams (NMRTs)

We realized the Healthcare Organization in Disasters Project in our country in order to respond to possible disasters, primarily earthquakes that may happen. We established adequately trained and equipped teams with a view to providing medical rescue services within the shortest possible time; ensuring the fastest and safest transportation of patients or injured citizens in the disasters and organizing the professional management required in such circumstances. The fact that 95% of Turkey is located in the earthquake zone underlines the importance of specializing and being well prepared in this field.

We are proud to state that these teams, highly capable of responding to disasters even outside our country, performed their duty in Iran and Pakistan earthquakes, Indonesian earthquake and tsunami disaster, and most recently Haiti earthquake and Pakistan flood disaster.

Under the project, we delivered basic and complementary trainings to 4.400 voluntary healthcare personnel assigned in NMRTs established in all provinces under the control of the Ministry. We already have the largest national medical rescue force of Europe.

Subjects of NMRT Trainings:

- Triage
- Disaster Psychology
- Stress Management
- Wreckage Works
- Alternative Splints
- Crush Syndrome
- General Overview of Disasters
- Disaster Epidemiology
- Stretcher Placement and Transportation
- Communication
- Basic and Advanced Life Support
- Protection from the NBC Attacks
- Strategic Team and Conflict Management
- Psychological Support and Intervention to Shock
- International Signs and Signaling System
- Fixation, Identification, Packaging of the Patient/Injured
- Terms of Reference of the Medical Team and Legal Dimensions



The Largest Medical Rescue Team in Europe

We set up the “Department of Health Organization in Disasters” in 2004 with the purpose of reducing death and injury rates to acceptable levels in disasters, particularly in earthquakes, through the provision of medical rescue services in the shortest extent possible by well-trained and properly equipped voluntary teams; transport of patients/injured citizens in the fastest and safest way; provision of emergency treatment units and treatment services after transport and establishment of professional management organization required for all works.

In a period of two years, we delivered basic training to 2643 personnel assigned in the National Medical Rescue Teams established in 81 provinces on voluntary basis. We delivered training to a total of 4400 NMRT personnel by the end of 2010.

Medical rescue teams are engaged in field exercises as well as basic theoretical and station trainings and are always on call.

National Medical Rescue Teams are a source of pride since they were established and some of the rescue activities undertaken by them in Turkey and abroad are the following:

Abroad

Earthquake in Iran, Bam (2003)

Earthquake in Pakistan (2005)

Sudan Humanitarian Aid Organization (2007)

Flood and Landslide in Afghanistan (2007)

Earthquake and tsunami in Indonesia (2009)

Haiti Earthquake (2010)

Pakistan Flood Disaster (2010)

Transport of the injured from Iraq

Transport of the injured from Israel

Turkey

Konya Zümürüt Apartment Building Collapse (2004)

Explosion in Diyarbakır Military Housing (2006)

Bursa Intam INTAM Building Collapse (2006)

Rize Flood Disaster (2010)

Konya-Taşkent Balcılar Building Collapse (2008)

One of the most important aspects in cases of disaster is the coordination between rescue teams and organizations in the efforts to reduce the impacts of disaster. Moving from this requirement, we set up Health Disaster Coordination Center (SAKOM) with the aim of responding to disasters or any extraordinary incidents immediately and reducing mortality and disability by ensuring coordination with all organizations. We keep track of disasters and extraordinary incidents that occur within the country and abroad for 24 hours and respond to them immediately. We simultaneously monitor 16 national and international news channels with this system, watch breaking news on internet and check earthquake monitors for 24 hours with our connection to Kandilli Observatory. Long distance calls could be made with HF radio systems at the center equipped with the state-of-the-art technology and we could also make live calls by means of video teleconference with provinces.

We also introduced a system which could detect emergency call signals received from air and sea vehicles and emergency signals from mountaineers and research and rescue teams and find their position and location.

We provided 32 Mobile Urgent Response Units, each of which involves 8 tents, for preparedness for disasters and extraordinary circumstances. Each of these units is installed by inflating in a maximum of 10 minutes and the first patient could be admitted in 15 minutes. Total area of use for each unit is 400 m². We also provided 6 field hospital tents that could serve under severe climatic conditions. These hospitals involving decontamination units needed in cases of chemical events are allocated to central cities of the region. We will increase our preparedness capacity for disasters across the country by enabling 6 more units in July 2011.

9. Oral and Dental Health Services

The Strategic Action Plan on Preventive Oral and Dental Health

Oral and dental health is a factor directly affecting the health of an individual. Unless preserved, oral and dental health leads to several diseases. As is the case in all health related matters, preventive measures are generally acknowledged for oral and dental health diseases rather than treatment.

Under preventive oral and dental health services;

We drafted a follow-up plan on preventive dentistry with the aim of monitoring oral and dental health of expectant mothers, mothers during pregnancy and of the baby in the uterus until adolescence so that oral and dental health awareness is raised in the society. Other aims of the plan were to reintegrate the baby with the society as a healthy individual with regular follow-up and to ensure unity in periodical dentist controls.

We aim to make sure that regular dental check-ups and preventive dental practices are adopted as a lifestyle in order to improve oral and dental health awareness of the society.

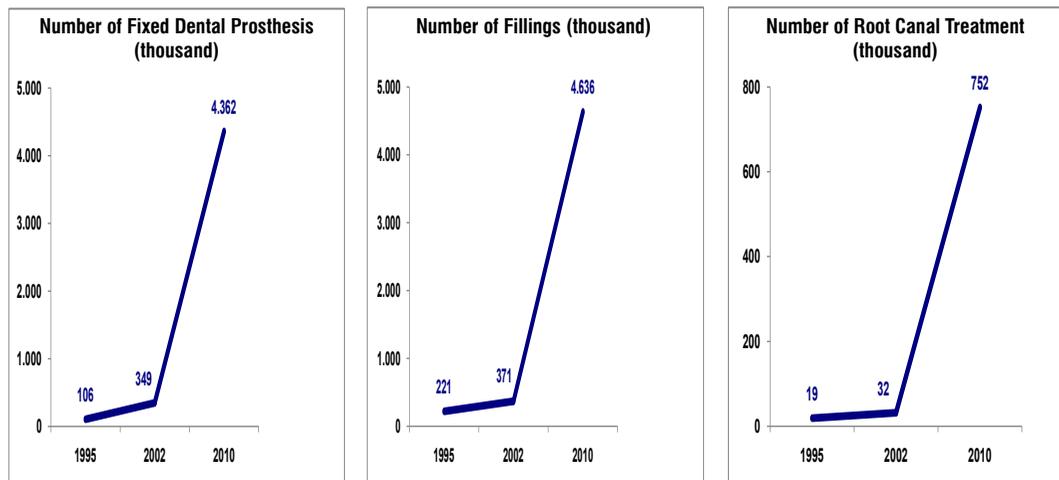
Dental caries and gingival diseases are important problems of oral and dental health of the society and affect the quality of life of all age groups. Lack of awareness of individuals on oral and dental health adds a social dimension to the problem. Therefore, the most effective method of prevention is the primary preventive service given on community basis.

Dental caries and gingival diseases are diseases, which people may be exposed to for a lifetime, so preventive methods should continue for a life time as well. Dental caries and gingival diseases are likely to be reduced with the effective use of preventive methods.

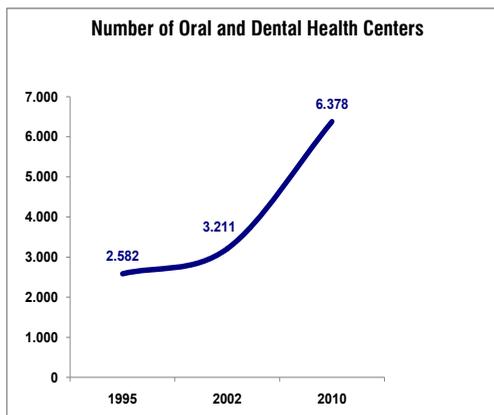
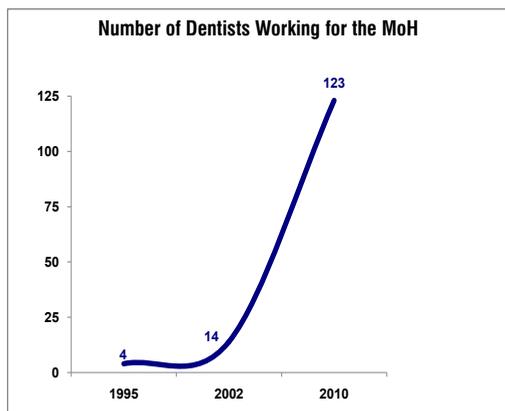
We drafted “Preventive Oral and Dental Health Strategic Action Plan and Implementation Program” with the aim of providing information and training to the public on the significance of oral and dental health, preventive dentistry practices and acquiring the habit of regular tooth-brushing; following up oral and dental health of the target group and minimizing the rate of dental caries and dental treatment given.

We aim for a society without dental caries with preventive oral and dental health services. We continue to conduct the following activities to achieve this objective:

- Understanding the significance of and improving public awareness on oral and dental health,
- Monitoring regularly oral and dental health of the mother and the baby under preventive oral and dental health services starting from expectant mothers,
- Making people be aware of and act in line with their own health and health-related problems and pay attention to their oral hygiene (acquiring the habit of proper and regular tooth-brushing, making dental flossing more common),
- Acquiring adequate and balanced dietary habits, understanding the significance of the relation between oral hygiene-nutrition-caries and acting accordingly,
- Having regular dentist check-ups,
- Understanding the significance of preventive dental treatments (Fluorine use and fissure sealants),
- Increasing efficiency and availability of preventive oral and dental health services.



Graph 20-21-22



Graph 23-24

We increased the number of Oral and Dental health Centers, which was 14 in 2002, to 123 in 81 provinces. In addition to secondary and tertiary health care organizations opened with the principle of providing equal and fair access to dentistry services across the country, we increased the number of dentists working for these units to 6.378 and increased the number of dentists per population.

10. Healthy Environment, Healthy Human

- Survey on Health Profile of Villages in Turkey

We introduced “Healthy Villages Project” with the aim of providing necessary conditions in villages as well as urban areas for environmental and public health, which are the fundamental elements of Preventive Health Care Services. We aimed to identify current status of villages with the mentioned Project and to develop policies in cooperation with relevant organizations and institutions on the problems of villages based on accurate, healthy data obtained.

We conducted the “Survey on Health Profile of Villages in Turkey” covering 34.110 villages in our country. We identified specific characteristics of villages such as: inclination of village territory, presence of swamps and dumpsites, exposure to natural disasters, sources of income, residential, land, territorial and climatic characteristics of the village, the number of health care organizations in the village, the number of public personnel working in the village, seasonal migration; presence of seasonal migration and health conditions in the sites of seasonal migration. We also evaluated drinking and potable water of the village in a separate questionnaire. We also analyzed many other things such as network and water pipeline, presence and convenience of resource saving areas, presence of and convenience of water tanks with proper health and safety conditions, necessary analyses and chlorination of water.

We questioned and analyzed health status of villagers, existence of important health problems affecting health in the village. We also analyzed causes of diseases, disability, mortality and poisoning cases resulting from these problems if any.

We also analyzed public places in villages in terms of construction, proper use, lighting, ventilation, heating, maintenance and sanitation under the Survey.

- **Water Safety**

Water is one of the substances of vital significance for human beings. However, human health may be endangered in case that water, which is indispensable for human health, is not safe and reliable and major public health problems may rise.

Drinking water has a vital importance for human beings to maintain their lives. Adopting a holistic approach for drinking waters from the spring to the point of distribution, we introduced “**Water Quality Monitoring Program**” with the aim of monitoring them in such a way to include water treatment, water distribution system, taps, water tanks and water pipes.

Quality of water is analyzed in the data collection system created for drinking-potable water in two ways: inspection and control. Both types of monitoring involve chemical, physical and microbiological parameters. However, inspection also involves almost 52 parameters including radioactivity.

We take necessary corrective measures and impose utilization limits if incongruity with any of these parameters is observed during inspection and control. We inform the customers in cases of incongruity and make the necessary warnings. We publish incongruent analyses results on the web pages of provincial health directorates in order to inform the public.

11. Employee Health

According to data of the International Labor Organization, around 250 million and 160 million people in the world are exposed to dangers resulting from occupational accidents and occupational diseases respectively. **11 million new occupational disease cases occur every year in the world according to the data obtained from WHO and 700 thousand of these cases die from occupational diseases.**

A majority of employees in our country are not able to access to fundamental occupational health and safety services adequately. Therefore, it is required to integrate delivery of current health care services with occupational health services so that occupational health services become effective, widespread and accessible.

Restructuring and development of services are involved in the field of National Occupational Health and Safety as a policy and the following are among such services: occupational health and safety measurements by improving measures for occupational health and safety of employees, revelation of occupational diseases, practice of workplace physicians, consultancy, training services, hospitals specialized in occupational diseases and inspections.

We drafted an action plan on the services we will provide on occupational health between the years 2010-2014. Moreover, we included some components of this action plan into strategic plan of the MoH. These objectives are as follows:

Objective 1. To extend the scope of occupational health services in such a way to cover all employees in our country.

Objective 2. To identify the actual dimension of occupational health problem in Turkey.

Objective 3. To reduce mortality and morbidity of occupational diseases.

We developed “Primary Occupational Health Model” in cooperation with WHO so as to maintain and spread out occupational health services in an effective, accessible and qualified way and to integrate them with current health services.

A cooperation protocol was signed in the field of “Occupational Health and Safety” between the MoH and the MoLSS in April, 2010. Under the protocol, we cooperate on drafting a national policy and action plan on preventive occupational health services, prevention and early diagnosis of occupational diseases.

The MoH and the MoLSS enacted an implementing regulation and thus enabled Community Health Centers to serve the practice of workplace physician.

12. Climate Changes

Climate changes are one of the most important global problems that the world is faced with in recent years. Moreover, they pose a serious threat for public health. Recent studies show that the impact of climate changes on the increase of global disease burden and mortality is high.

As is the case across the world, people living in our country are also directly affected by severe climatic events such as temperature extremes, flood, storm and rise of sea level and are indirectly exposed to changes occurring in the quality of water and food, ecosystem, agriculture, industry, residential areas and economy. This exposure poses a significant threat on public health from the point of communicable diseases, vector-borne diseases and diseases caused and influenced by temperature extremes.

We drafted a report titled “Health Impacts of Climate Change in Turkey” in order to assess the impacts of climate change on public health in Turkey. In line with this report, we drafted “Action Plan on Health and Climate Change” with the aim of minimizing health impacts of climate change.



D. IMPLEMENTATION

2. Diagnostic and Curative Services

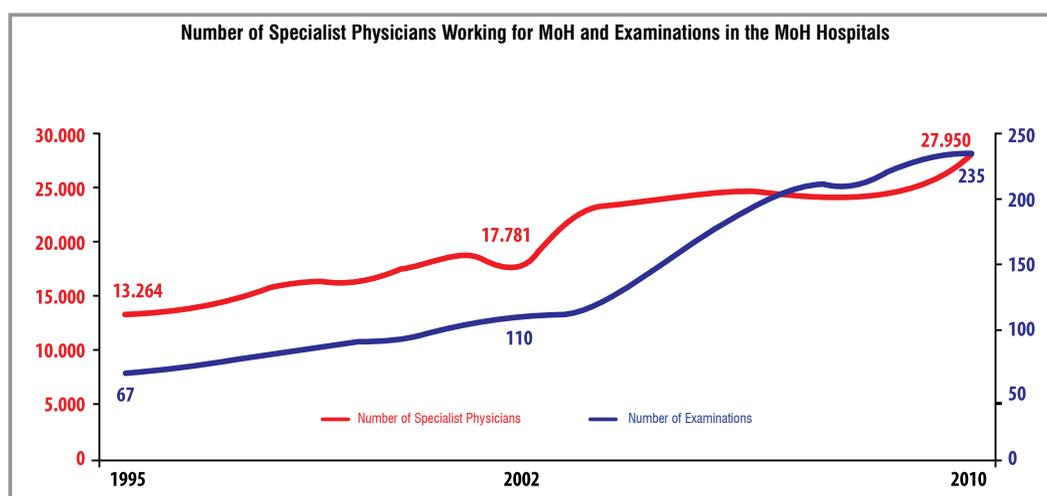
Preventive services are important. However, receiving essential treatment in the right place and at the right time is also very important for patients. Health right is an indisputable and urgent human right.

1. Eliminating Discrimination in Health: Uniting Public Hospitals under a Single Roof

The principle of efficiency, one of the objectives of the Health Transformation Program, is defined as “efficient use of resources to reduce costs and produce more services out of the same resource”. It is emphasized that the distribution of human sources, management of materials, rational drug use, health administration and preventive medicine will be assessed under the scope of this principle and that efficiency will be improved by including and integrating all sector resources of our country into the system.

We aim at mobilizing all resources allocated for health service provision to serve for the public by “uniting all hospitals under a single roof” in the abovementioned framework. In this period, we have lifted obstacles preventing the access of patients to the hospitals by transferring SSK hospitals to the MoH and thus, we have eliminated discrimination among our citizens. In this way, hospitals which suffered from unbalanced workload in the past were opened to all patients regardless of whether they were covered by the SSK, Bağ-Kur, Government Employees Retirement Fund or Green Card.

Most people, who had difficulty in accessing healthcare services formerly, now have the opportunity to utilize these services. Uniting SSK and Public hospitals, which is an equitable implementation, not only created different alternatives for people but also granted SSK beneficiaries the right to utilize healthcare services, which they could not in the past although they paid premiums and were covered by the insurance system.



Graph 25

2. Opening Private Hospitals' Doors to Everyone

The Health Transformation Program envisages to incorporate all sectoral sources related to health in our country into the system and thus to ensure harmonization and enhance efficiency. Uniting hospitals under one roof was a concrete step taken to this end.

Another important step is the inclusion of private sector investments to the system allowing patients to receive services from these institutions under the coverage of their own social security. Now, all sources in the country, regardless of being public or private sources, serve to the public. Public hospitals compete with the private sector for service provision, which increases the quality of service; this effect will become more pronounced over time. The fact that private healthcare facilities opened their doors to patients covered by public insurance has alleviated the workload of public hospitals.

Thus, the provision of healthcare services is facilitated by sharing the excessive workload, which was mostly undertaken by public sector in the past, with private healthcare institutions. In addition, registered work was encouraged in private sector. As a result, the shares allocated for the public over the values produced also increased. Today, the sector is supervised more carefully. On the other hand, private health sector gained a new momentum with this implementation. Significant number of investments has been made in this field. We have imposed limitations to additional fees charged by the private hospitals in order to protect the patient. We began to provide emergency and intensive care treatments as free-of-charge in all private and public hospitals. We have provided free-of-charge health care services for burn injury, cancer and infant treatments, organ transplantations, congenital anomaly, dialysis and cardiovascular surgery operations. These recent implementations direct the majority of the private hospitals to a transition towards becoming public hospitals. Private hospitals are in the process of adapting themselves to this process.

3. Decentralized Management of Hospitals

Transfer of authority to hospitals, flexibility in management, and more autonomy over resource allocation and performance-based supplementary payment for personnel from revolving funds increased efficiency in hospitals. Healthcare institutions started to become patient-centered service institutions.

In order to alter the cumbersome structure of public hospitals, obstacles preventing the purchase of particularly imaging services as well as many other medical services from the private sector were lifted, and the service structure of the hospitals started improving rapidly.

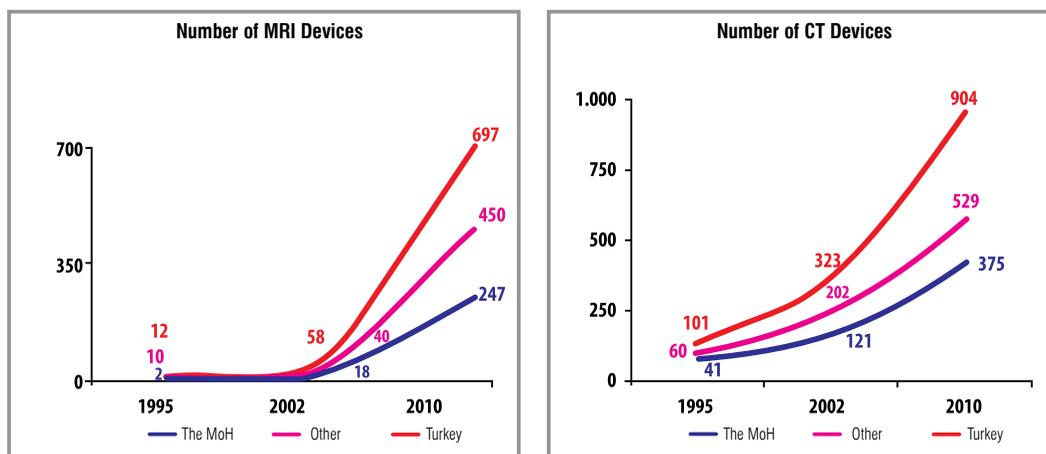
Thus, the waiting periods for imaging and other processes were shortened substantially. Differences in management models and weaknesses of management were removed by uniting all SSK hospitals and public hospitals under the MoH's roof and new implementations.

Today, service equipment and tools are supplied without putting burden of investment on public sources and the cost can be incurred by the revenues of public institutions.

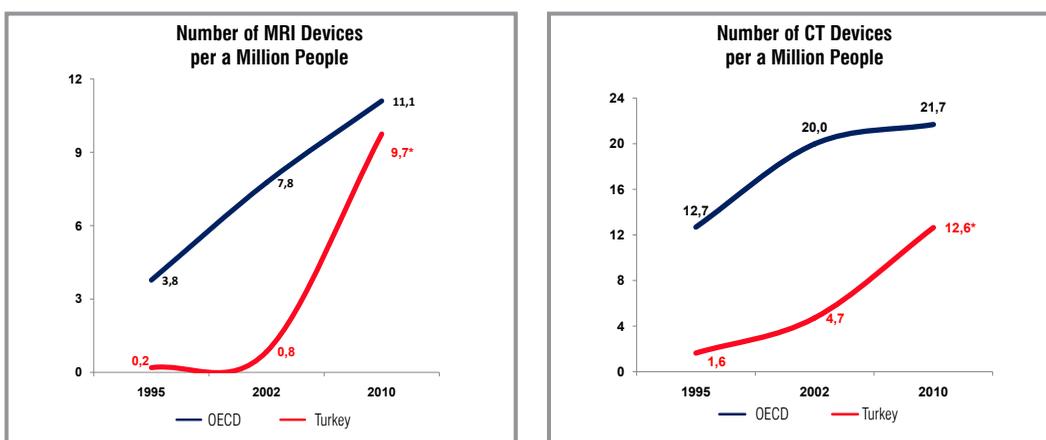
Hospitals in Turkey, which gain more autonomy each passing day and have already decentralized in management, are gradually becoming autonomous public institutions. These developments are considered to be the first steps of privatization by opponents of the Health Transformation Program; however, the Health Transformation Program does not have such a goal.

4. Restructuring in Hospital Services

In the framework of the Health Transformation Program, we have renovated public hospitals by the latest technology and we have built more capacity. We began to service procurement as public-private partnership model in public hospitals. The number of magnetic resonance imaging (MRI) devices, which was 18 in total in 2002, was increased to 247 in 2010, whereas the number of computerized tomography (CT) devices increased from 121 to 375, and the number of ultrasonography devices increased from 495 to 1.352. There are also similar increases in private sector and university hospitals.



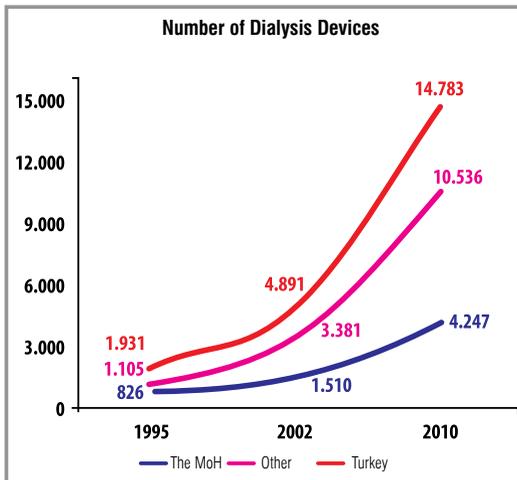
Graph 26-27



Graph 28-29

Figures are estimated by using the source of OECD Health Data, 2010.

* Turkey's figure shows the MoH figures by 2010.



Graph 30

The number of dialysis machines was 1.510 in 2002, whereas it increased to 4.247 at the end of 2010. The number of hemo-dialysis devices has been increased approximately three times more. Regular and sufficient treatment services are provided to hemo-dialysis patients. In this way, life expectancy of chronic kidney patients is extended substantially in Turkey. For the reason, the number of patients increased from 23.255 (in 2002) to 49.996 (at the end of 2010) in dialysis program. The need of kidney transportation is also increased substantially with this positive development.

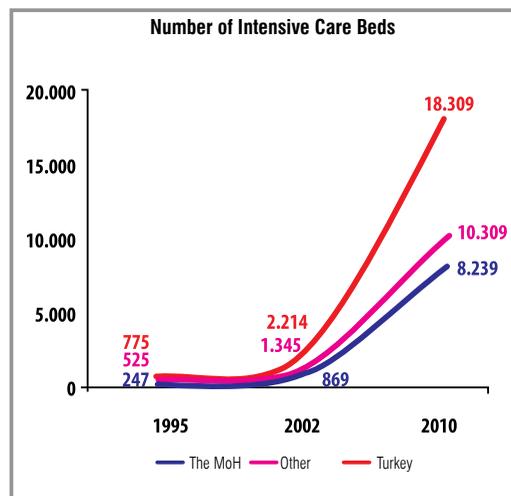
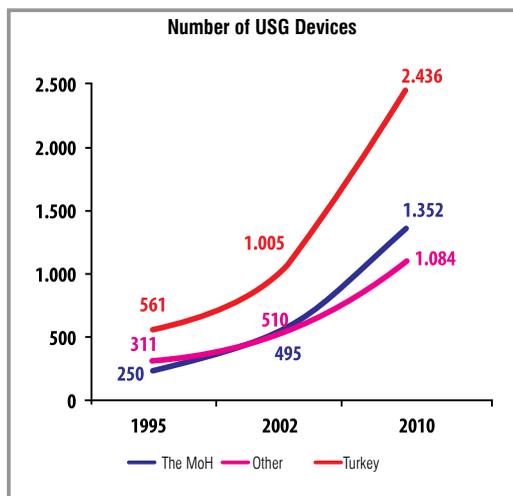
Today, dialysis patients are taken to hospital from their house and to their house from hospital. No payment is requested for this service.



Table 4: Comparison of 2002-2010 for the number of High Technology Production Medical Devices in Turkey

| | Cyberknife | | | Robotic Surgery | | |
|------|------------|-------|-------|-----------------|-------|-------|
| | The MoH | Other | Total | The MoH | Other | Total |
| 2002 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2010 | 3 | 4 | 7 | 3 | 9 | 12 |

Our hospitals do not suffer from lack of medical devices and equipment anymore. We put latest technology devices used in modern medicine into service for our citizens at the same time with many developed countries.



Graph 31-32

We increased the number of intensive care beds, which was 869 in 2002, to 8239 by the end of 2010. We increased the bed capacity in intensive care units by eight folds in the country. We improved the quality of intensive care services fundamentally by regulating the service levels in intensive care units.

5. Patient Rights

a. SABİM (Call Center of the Ministry of Health)

We established SABİM in 2004 to identify problems in health care system and solve them immediately on site and in the fastest way possible.

Calling the phone number of SABİM (184) for a problem occurred in any process of health care system is activating an auto-control mechanism. An application recorded by SABİM Operators is sent to related provinces SABİM after being evaluated by SABİM Analyzers. This application is analyzed in the most accurate way by SABİM Analyzers immediately.



Now it is your right to receive service

You can reach the MoH
directly through

SABİM Call Center 184

We are at your service **24/7** with 52 operators.

We solve the **90% of the applications in the first 24 hours.**

For the cases which cannot be solved immediately, we resolve the issue and then inform the citizen. Every year we resolve

1 million applications to SABİM.

b. Patient Rights Unit

We aimed to offer a health service system in which the patient is informed at any stage of treatment process, the patient consent is received, which provides necessary treatment service without making any discriminations and violating patient rights, gives a chance to patient to choose his/her physician and hospital and protects patient privacy sensitively. Thus, we launched Patient Rights Unit in accordance with related legislation in all public hospitals.

Our citizen is notifying his/her demands in writing or orally to patient rights units which we established to provide the right to receive service, and the necessary assistance and remedial actions are made in accordance with patient demands.



Members of the Patient Rights Board:

- Chair of Patient Rights Board, Deputy Head Doctor
- Supervisor of Patient Rights Unit
- Supervisor of the Personnel Unit (whose personnel is reported)
- Representative of Non-governmental Organization engaged in patient rights
- Citizen determined by Governor's Office
- Member of Provincial General Council
- Patient's lawyer (if available)
- Union Representative authorized in public institution in accordance with the Government Union Law no. 4688

How "Patient Rights Unit" operates:

Complaint reports received by the Patient Rights Unit are delivered to Board Members within one day.

Information is requested from the personnel reported within one day.

Personnel shall respond to the Board within two days.

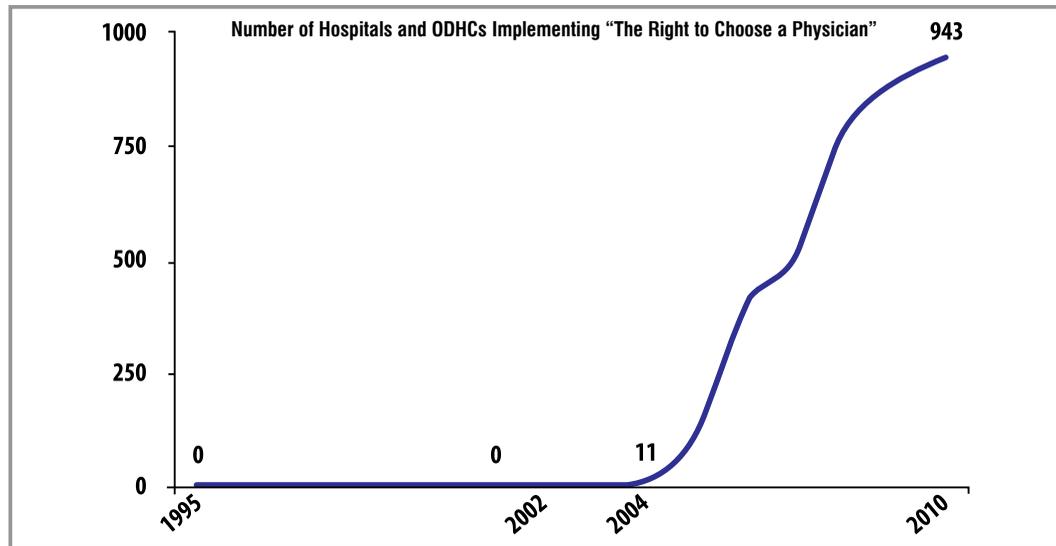
Responses requested from personnel shall be reported to Board Members within one day at the latest.

Comments of persons other than Parties (if necessary) shall be given by any member authorized by Board Chair. Comments given shall be reported again to members of board within one day. Board decisions shall be taken by secret voting and majority of votes. Administrative action shall be taken to personnel proved as defective in accordance with related legislation by the Patient Rights Board of Hospital.

Decision taken shall be reported to patient by Supervisor of Patient Rights Unit. Patient is informed about next legal process and what he/she can do.

c. Your Right to Choose Your Physician

We formulated and introduced “the right to choose a physician”, which is one of the most fundamental patient rights, in 11 hospitals in September 2004. We put “the right to choose a physician” into practice in all hospitals and Oral and Dental Health Centers (ODHC) by 2010.



Graph 33

How patients choose a physician?

- We are preparing lists to inform citizens about examination days and the working hours of physicians.
- We are putting up boards including physicians' name and specialties at the entrance of polyclinics.
- We are publishing general information about physicians on web sites of hospitals.
- We are informing citizens about “the right to choose a physician” through secretaries in polyclinics.
- We are providing screens on the doors of polyclinics in order to show numbers of patient queues.

6. Identifying and Grouping the Roles of Hospitals on an Institutional Basis

A-1 Group General Hospitals: General inpatient healthcare institutions, which are authorized by the Ministry to provide training in at least five branches as per legislation and assigned training cadres accordingly and which provide tertiary level treatment and rehabilitation services, conduct training research activities and train specialists and sub-branch specialists, are classified as A-1 Group Hospitals.

A-Group Branch Hospitals: This group includes branch hospitals which hold training and research hospital status and meet the following criteria;

1. To have training and research hospital status,
2. To have tertiary level intensive care and/or newborn intensive care units as required by its field of specialization,
3. To provide tertiary level emergency services in the branch and/or branches required by its field of specialization,
4. To establish Training Planning and Coordination Board.

A-2 Group General Hospitals: General hospitals located in provinces holding regional health center status or in provinces under the coverage of these centers; which do not have training and research hospital status and meet the following criteria are classified as A-2 Group Hospitals.

A-2 Group Branch Hospitals: All branch hospitals lacking training and research hospital status are classified as A-2 group branch hospitals.

B-Group General Hospitals: General hospitals which are not included in A-1 and A-2 Group hospitals, which are located in strengthened districts or in general hospitals in provincial center and meet the following criteria, are classified as B-Group hospitals.

1. To be located in provincial center or strengthened district center,
2. Capacity to assign physicians on-call/duty from its pool for emergencies in internal medicine and surgery branch on 24-hour basis.
3. To have at least secondary level emergency and secondary level intensive care units.

C-Group General Hospitals: C group includes the general hospitals classified according to the below listed criteria.

1. To be located in strengthened districts or smaller districts connected to district centers strengthened under health region planning,

1. To have specialists in four major branches and specialists in minimum two additional branches,
2. To have at least primary level intensive care unit and primary level emergency department.

D-Group General Hospitals: This group includes general hospitals with minimum 25 patient beds and located in strengthened districts or smaller districts connected to district centers strengthened under health region planning and which meet the following criteria:

1. Under the four major branches; to have minimum one specialist planned for each branch and more than one specialist including the family physician,
2. Under the existent specialties; to provide specialist level polyclinic examination services and specialist level follow-up and treatment of hospitalized patients,
3. To provide emergency healthcare services within the primary level emergency service setting,
4. To have an operating room, post-operative recovery room, dental polyclinic, delivery room, observation room with monitor,
5. Capacity to structure dialysis unit according to the needs.

E-Group Hospitals: E-Group hospitals are the integrated district hospitals with less than 25 patient beds. Diagnosis and treatment services are provided in the same setting with primary care in these institutions.

7. Triage and Registration at Emergency Departments

“Communiqué on Rules and Principles of Emergency Service Provision in Inpatient Healthcare Facilities” was enforced following its publication in the Official Gazette No.27378 of October 16th, 2009.

The communiqué applies to all emergency departments, emergency polyclinics and units providing services in public and private inpatient healthcare facilities.

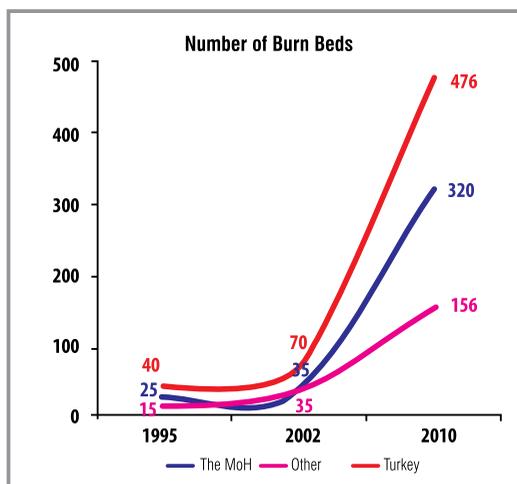
We initiated the restructuring process by defining the minimum personnel and service criteria, physical conditions and ease of transportation, minimum standards regarding materials and medical technological equipment in the communiqué. We put into practice patient triage and color coding system at emergency health services. We made regulations for emergency call services in order to provide emergency departments to 24 hours uninterrupted service at specialist level. We have provided an effective coordination between 112 Emergency Health Care Services and emergency departments of hospitals.

We started to undertake triage and registration in all emergency departments across Turkey according to their compliance with standards in line with the communiqué. We registered 87% of inpatient health care facilities of private sector, universities and the MoH by June 2011.

Registration process continues for facilities which have deficiencies that can be overcome under current conditions and which request more time for restructuring physical conditions. We aim to complete the registration process until the end of 2011.

8. Restructuring in Burn Treatment

Due to the fact that burn patients are susceptible to infections and other secondary problems, they need special care and attention. When the Health Transformation Program was first initiated, there were only 35 burn beds in the MoH hospitals. By the end of 2010, the number of burn beds in the MoH hospitals rose to 320, accounting for a total of 476 burn beds countrywide. The number of burn beds in the MoH hospitals increased by 9 folds in comparison to 2002. We put into service the MoH Kartal Burn Treatment Hospital for the first time in 2009 in Istanbul.



Graph 34

9. Prevention of Hospital Infections

Despite the developments in medicine, hospital infections are an important health problem all over the world. Hospital infections might cause deaths if they are severe, and they pose a great threat especially for patient safety and health professionals, visitors, non-health professionals and public health. By taking measures, it is possible to decrease the frequency of hospital infections, which bring a financial burden to the country's economy by extending the patients' length of hospital stay.

Hospital infections pose an important problem in our country as well. Despite the fact that serious studies have been undertaken in the developed countries on hospital infections for the last 50 years, except for the studies of the relevant specialty fields on the issue, the studies and administrative support in our country were insufficient. Under the MoH, we began to work and study in this field in September 2004. We have carried out the works and studies in line with the opinions and decisions of "Hospital Infections Scientific Advisory Board", which is composed of experts of the field from various schools of medicine and training and research hospitals.

We provided legal support needed for many years by invoking "Regulation on Infection Control in Inpatient Healthcare Institutions" published in the Official Gazette No. 25903, dated 11.08.2005 in order to regulate principles and procedures regarding to duty, authority and responsibilities of the infection control committees which carry out works in the field of prevention and control of healthcare related infections in inpatient healthcare institutions. We continue our works and studies on the basis of implementing regulation the above mentioned.

Today, infection control committees carry out activities in all inpatient healthcare institutions in accordance with the relevant Implementing Regulation.

One of the important tools for improving the quality of service delivery is to train sufficiently-qualified human resources required for service provision. In accordance with the relevant Regulation, all inpatient healthcare institutions are obliged to assign an infectious diseases and clinical microbiology specialist per thousand beds as the infection control (IC) physician (preferably having a national/international certificate). They are also obliged to assign one of their nurses holding infection control nursing certificate, issued by the MoH, as the infection control nurse per two hundred and fifty beds. We certified 421 infection control physicians and 1053 infection control nurses with National Certificates by the end of 2010 through infection control trainings conducted since 2007 up to the present. We prepared “Hospital Ventilation and Control Guide” with the efforts of the Scientific Advisory Board. As a result of our serious studies in the field of hospital infections, we have been able to reach national data and develop national policies since 2006. As per the relevant Regulation, hospital administrations are obliged to submit their annual activity reports, including hospital infection rates and surveillance results, to the MoH no later than the end of February each year. With the support of the Scientific Advisory Board, the MoH developed “National Hospital Infections Surveillance System” in order to collect hospital infection data in a single center, to analyze the data and provide feedbacks, and to develop policies for the prevention and control of hospital infections. In this way, we determined “Hospital Infections Surveillance Standards” with the support of the Hospital Infections Scientific Advisory Board and we notified all hospitals about them. Moreover we published “Safe Practices for Total Parenteral Nutrition Guide” in order to help decrease hospital infections by standardizing the current and future Parenteral Nutrition units in hospitals and increase the service quality of the institution.

We have collected the latest hospital infection data in accordance with international standards and analyzed by using web-based “National Hospital Infections Surveillance Network (NHISN)” developed under the MoH and opened to public access in August, 2007. Hospitals enter NHISN by using the passwords provided by the MoH, and reach their own hospital infection data. We obliged all inpatient treatment institutions of the MoH to join NHISN in May 2008.

Today, we can access infection rates and frequency of resistant microorganisms of 1045 inpatient healthcare institutions over NHISN, except day hospitals .

Within the scope of “Health System Performance Assessment in Turkey” carried out by the MoH in cooperation with WHO, one of 42 indicators chosen in accordance with data quality is surgical site infection rates. Today, we have the most developed surveillance system in EU countries. The quality level of data that we obtained is comparable with data of the United States of America. The development we have reached in the last five years is equal to the one which developed countries have reached approximately in 50 years.

10. Central Hospital Appointment System (CHAS)

CHAS is an implementation where citizens can call the 182 CHAS Call Centre for Oral and Dental Health Centers and hospitals affiliated to the MoH and can get an appointment from the hospital and physician they choose through real-time operators.



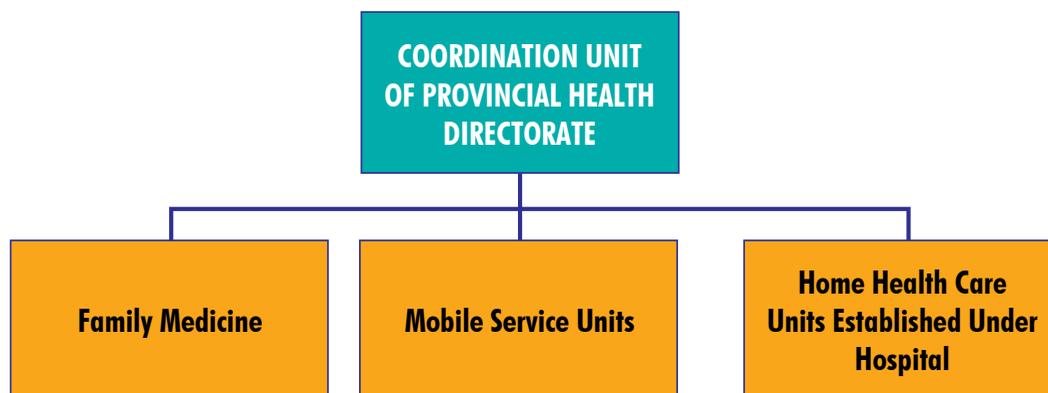
The objectives of CHAS are as follows:

- To shorten the queues at hospitals and to increase the citizen/patient satisfaction through better planning of resources at hospitals (efficient and effective planning of work force and equipment use).
- To increase the efficiency and quality in the provision of health services through the measurement of resource use and distribution at hospitals (efficient and effective implementation of work force, machines and equipment use).
- To provide assistance to development of health policies through CHAS data.
- By the end of 2010, approximately 7000 citizens are examined by making an appointment through CHAS in 89 hospitals in 9 provinces in a day. We will provide the CHAS service throughout the country by 2011.

11. Home Health Care Services

We are providing qualified, effective and accessible health care service for bedridden patients in their own homes under home health care service provision. In addition, we are reducing the costs of healthcare services by preventing unnecessary use of hospital beds.

Institutional Structuring





This vehicle is one of the vehicles used for Home Health Care Service.

Services Provided by Home Health Care Units:

- Examination and Consultation Service,
- Nursing Services,
- Laboratory Services,
- Preparing Health Board Report – Renewing Expired Reports,
- Prescribing pharmaceuticals to be taken with Health Board Report,
- Procurement of Medical Devices and Equipments and Allocation to Use of Patients by debit,
- Rehabilitation, Education and Support Services,
- Oral and Dental Health Care Services for the Patients under Home Health Care Services.

12. Planning for Cardiovascular Surgery (CVS) Centers

Our population is expected to increase by 13 % in 2023. Moreover, population aged 40 and above, considered to be under risk for coronary heart disease, is expected to constitute 40 % of the whole population due to the aging of the population.

These dynamics suggest that the number of patients with cardiovascular disease will increase.

Therefore, we are carrying out works and studies to prepare a national plan in line with the National Heart Health Policy. In this context, we aim to improve cardiology and CVS services and ensure highly qualified services.

Under the scope of regional health planning, we have planned to establish cardiology and CVS centers in 26 provinces. We started our works with the support of seven coordinator hospitals. We organized training activities for relevant personnel in the said 26 provinces and we have almost completed trainings. Now, we have provided to CVS services in 40 centers established in 21 provinces by the end of 2010. Today, CVS services, which require such advanced technology and team-work, are provided to our patients at CVS centers in their neighborhood.

In CVS centers, at least 6 CVS specialists are working and there are 5 inpatient intensive care services (tertiary level) and 10 inpatient care services.

We aim to achieve a diagnosis in the earliest time to a patient suffering heart attack and provide a cardiologist and internal specialist in 90 minutes to reduce heart attack deaths.

13. Blood Services

We started to establish the blood service units in Turkey with the Law no. 5624 on Blood and Blood Components enacted in 2007. The MoH assigned the Turkish Red Crescent (KIZILAY) for the collection and distribution of blood, except for emergencies. Regional structuring is realized by Red Crescent across the country with the support of the MoH. Having established 15 Regional Blood Centers and 56 Blood Donation Centers, Red Crescent supplies safe blood through the Transfusion Centers in hospitals. Besides, we opened blood centers in 84 hospitals with very high volume of patients. We are providing the supply of blood and blood components needed by our patients in these centers. In order to ensure the supervision of blood service units and enforcement of the Law on Blood and Blood Components, we have organized Supervisor Training to 213 healthcare personnel from all provincial health directorates of the country and physicians with experience of blood banking.

We have organized campaigns with the involvement of non-governmental organizations in order to underline the importance of blood donation and raise awareness about blood donation in the society. As a result of these efforts, trainings and briefings with Red Crescent, we increased the amount of blood donation, which was 326,337 units in 2002, to 1.015.000 in 2010.

This way, we have prevented our citizens from running from pillar to post in order to find blood and blood components in emergencies. In addition, we have prevented wasting of blood components which are so valuable.

We aim to continue our success and reach 1 million and 350 thousand units of blood donation by the end of 2011.

14. Organ Transplantation Services

In all of kidney transplantation centers throughout the country, data of the individuals waiting for transplantation have been registered to National Organ Waiting List of the MoH.

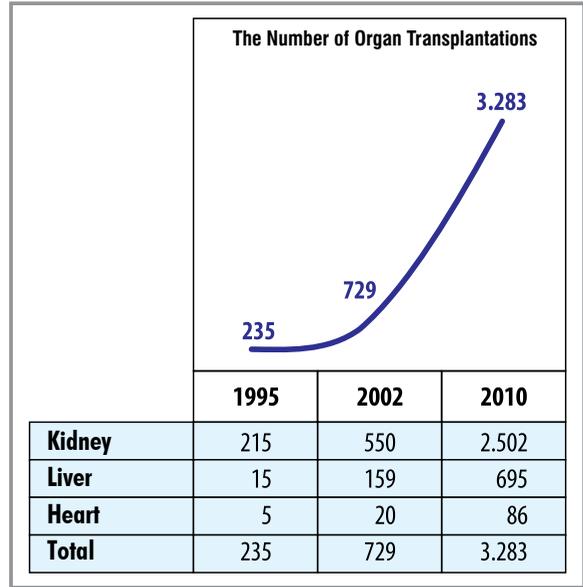
In the past, only registries for patient waiting for kidney transplantation and cadaver donor allocations were carried out by National Coordination Center of Organ Transplantation (NCC) on the basis of these registries. We generated Organ Transplantation Information System including data of all organ transplantations from living

and cadaver donor (kidney, liver, heart, pancreas and small intestine) throughout the country and data of patients waiting for organ. This system is primarily followed by organ transplantation centers, regional coordination centers (RCCs) and NCCs.

Organ transplantation is the most useful and the only treatment method especially for some organs among the organ replacement therapies. Solution cannot be found for some liver and heart chronic diseases which do not have any alternative treatments such as dialysis, if an organ not be found; patients could lose their lives in a short time.

This situation underlines the importance of increasing organ donation and cadaver donor organ supply for organ and tissue transplantation services. One of the most effective ways to shorten the waiting period for organ transplantation is to increase the number of brain-death notifications and cadaver organ donations.

9 RCCs in Istanbul, Izmir, Ankara, Adana, Antalya, Samsun, Diyarbakır, Erzurum and Bursa are performing cadaver donor organ allocation in coordination with NCC of Organ and Tissues Transplantation, which they belong to. We are also using the MoH ambulance airplanes to supply organ from cadaver to patients. We opened Kidney Transplantation center in 59 hospitals, liver Transplantation Center in 34 hospitals, Heart-Lung Transplantation Centers in 16 hospitals with certify to public access by granting license to them.



Graph 35

15. Tissue and Cell Transplantation Services

We put into service the Bone Bank (Atatürk Training and Research Hospital) and the Tissue Bank for Musculoskeletal System (Ankara University) in order to provide tissue required for institutions and organizations working in the field of organ and tissue transplantation services throughout the country.

We have granted new licenses to increase the number of Tissue Typing Laboratories which are very important in Organ and Bone Marrow Transplantation services and provide rapid tissue typing in every region. In this way, we have increased the number of Tissue Typing Laboratories to 32 throughout the country.

In our country, suitable donor cannot be found; as a result of this the number of bone marrow transplantation is limited with 800-900 people when it shall be approximately four thousands in proportion to our country population per annum. More than 3 thousand people have to wait for transplantation every year. Donors are mostly non-relative persons in bone marrow transplantations, and most of the bone marrows may be obtained from abroad.

International survey is needed to be done to find a suitable bone marrow due to the number of donor is fewer than 40 thousand in Turkey. Suitable bone marrow which is found through international donor surveys is procured by SSK and thus, it makes life easier for patients waiting for bone marrow. We increased the number of transplantation centers by giving a permission and license to new centers in order to provide active transplantation centre in each region and improve service provision. There are 45 transplantation centers in a total as 14 of them are pediatric and remaining ones for adults by June 2011.

We took place among the leading countries in the world by allowing mesenchymal applications in line with scientific criteria in Graft Versus Host Disease (GVHD) cases in stem- cell field. In Ankara University, an experimental treatment of spinal cord injury was performed on 10 patients through a study that we empowered.

We increased the number of eye banks to 16 in order to augment the number of cornea obtained from cadaver donors and reduce the number of patients waiting for cornea. In addition, we also increased the number of corneal tissue obtained from cadaver by implementing the plan of connecting tissue source centre to each eye bank.

Turkey Stem Cell Coordination Centre (TÜRKÖK)

In order to prevent the controversies on stem cell treatments and stem cell which gained importance in recent years, TÜRKÖK was established and put into action with the Ministerial Approval no. 22739 of 16.06.2008. With TÜRKÖK project, the followings are targeted;

- Gathering the coordination of centers regarding the transfer of hematopoietic stem cells under one roof,
- Performing works for increasing the number and capacity of the centers,
- Ensuring regular data flow from centers,
- Analyzing the collected data and detecting the shortages of centers,
- Performing works to determine the quality control and standards of centers,
- Through the establishment of National Bone Marrow Bank, decreasing the treatment expenditure for the patients, to whom hematopoietic stem cell will be transferred,
- Catching up with the EU standards and strengthening the administrative capacity,
- Ensuring the coordination for supplying hematopoietic stem cell for the patients who are waiting for the transfer through screening the cordon blood donated to National Non-relative Cordon Blood Bank and by voluntary donors in Turkey with various HLA-typing,
- Ensuring the coordination for supplying hematopoietic stem cell, in the shortest time, from the banks abroad for the patients who are waiting for the transfer, but for whom voluntary local donors can't be found in Turkey,
- Obtaining 250,000 registered voluntary donors with various HLA-typing from many different geographical regions of Turkey until 2013,
- Obtaining 50,000 cordon blood donations in total until 2013,
- Performing 2,500 and more transfers per year,
- Achieving 300 and more beds with the widespread distribution of transfer centers in line with the needs of the country,
- Full capacity utilization of transfer centre,
- Establishment of "Regional Coordination Centre", at first step, in 29 health regions in order to reach the targeted number of voluntary donors,
- Establishment of "Voluntary Donor Centre" at required number to be determined according to the findings of Region Coordinators,
- Establishment of National Non-relative Cordon Blood Bank and cordon blood collection centers (cordon blood donations from the MoH, universities, foundations and private maternity hospitals),

- Increasing the chance of treatment for the transfer-requiring patients in the shortest time and at the highest quality and decreasing the number of deaths and patients waiting for transfer by establishing the coordination between the centers in Turkey and abroad,
- Starting the accreditation process and ensuring the integration and coordination of hematopoietic stem cell centers with international institutions such as European Marrow Donor Information System (EMDIS), Bone Marrow Donors Worldwide (BMDW), The World Marrow Donor Association (WMDA), European Group for Blood and Marrow Transplantation (EBMT),
- Completing the trainings and certification activities of personnel working in all centers,
- Meeting all establishment costs and having a capacity to meet operational costs without getting any additional allowance until 2013,
- Sponsoring the scientific projects in Turkey and abroad, providing technical support.

16. Replantation Applications

In cases in which limbs or part of limbs is damaged as a result of accidents or similar reasons, sewing up the severed limb in a short time is very important and this intervention may take several hours. A problem in replantation applications is caused due to the lack of coordination between health institutions for referring the case to suitable center and the shortcomings in organizations.

Applications of replantation in deficient and unauthorized centers have negative consequences such as losing a limb.

In the past, patients who applied to hospital with their own means for complicated hand injury or amputation had to run from one hospital to another due to the fact that they were not informed well or were sent from hospitals without being stabilized and also patients referred to via 112 Emergency Health Care Services had waste of time due to challenges in finding appropriate health center. This loss of time caused delays in taking the patient into operation and irreversible losses concluded with patient's permanent disabling due to lack of coordination.

We made region-based planning in order to carry out replantation applications in a widespread and effective way throughout the country. We have developed guidance algorithm to these centers for emergency complicated hand injuries and amputation cases and we launched it in Istanbul at first step. We authorized and conferred responsibilities to 112 Emergency Health Care Services Command and Control Center for implementing and carrying out this algorithm delay-free. We will extend this implementation gradually until the end of 2011 throughout the country.

Today, replantations are performed with an annual average of approximately 750 applications. The number of micro-surgeries applied with complicated hand injuries is around 1500. The number of medical experts working actively in this field is around 75. We are planning to increase this number to 300 when relevant studies and works on giving sub-branch specialties to plastic surgery and orthopedic specialists are completed.

As a result of our works, we have prepared a list of centers capable of replantation applications in public and private sector. Today, we have provided treatment capacity for complicated hand injuries and amputations in university hospitals, private hospitals and the MoH hospitals from 22 provincial centers.



D. IMPLEMENTATION

3. Pharmaceuticals and Pharmacy

1. A New Era in Drug Price Policies

One of the leading findings about drugs considered while forming the Health Transformation Program was that drug prices and also the increases in prices were not evidence-based in the past. The MoH is responsible for determining the relevant norms and standards about drugs and pharmaceutical services on behalf of the public. It is also entitled and obliged to carry out inspections in the program and encourage rational drug consumption in cooperation with other relevant institutions and organizations.

As for drug pricing, the program clearly emphasized the need for developing a method mutually agreed by all parties. We have eliminated all the disturbance and negative aspects and put drug pricing under the light of transparency with the “Decree on the Pricing of Medicinal Products for Human Use” of 2004. Thus, we reduced prices significantly and brought down to the lowest level in Europe. We made reductions ranging from 1 % to 80 % in approximately a thousand products. Additionally, we contributed to the sustainability of price reductions with “reference price monitoring”. We monitored price changes in reference countries in three-month periods and the price reductions, if any, we reflected in the prices in our country. Thanks to this method, we could reflect price reductions to the prices in Turkey more than 200 times in the period 2004-2010.

In order to relieve the burden on Public Finance, we established a Reimbursement Commission and we launched “Single Reimbursement System” under the leadership of the MoF. With the consensus of the reimbursement institutions, we laid down the rule that prescribed medicinal products will be reimbursed on condition that their price is not higher than 15% of the cheapest equivalent drug.

With this practice, the firms manufacturing the drugs that remain out of this circle have voluntarily reduced their prices in order to benefit from the reimbursement system. Eventually, we have achieved a significant saving for public finance.

We reduced the VAT rates for drugs from % 18 to 8 % and we provided another outstanding decline in drug prices.

We laid down the rule “When a generic of an original product has been marketed, the price of the product may not exceed 66% of the current market price (both for the original and the generic product)” by another radical amendment in “Decree on Pricing of Medicinal Products for Human Use” in 2009.

The reductions in price made by SSK have also decreased the cost borne by the public for medicinal products. We have used all gains from these decisions to invest for the health of our citizens.

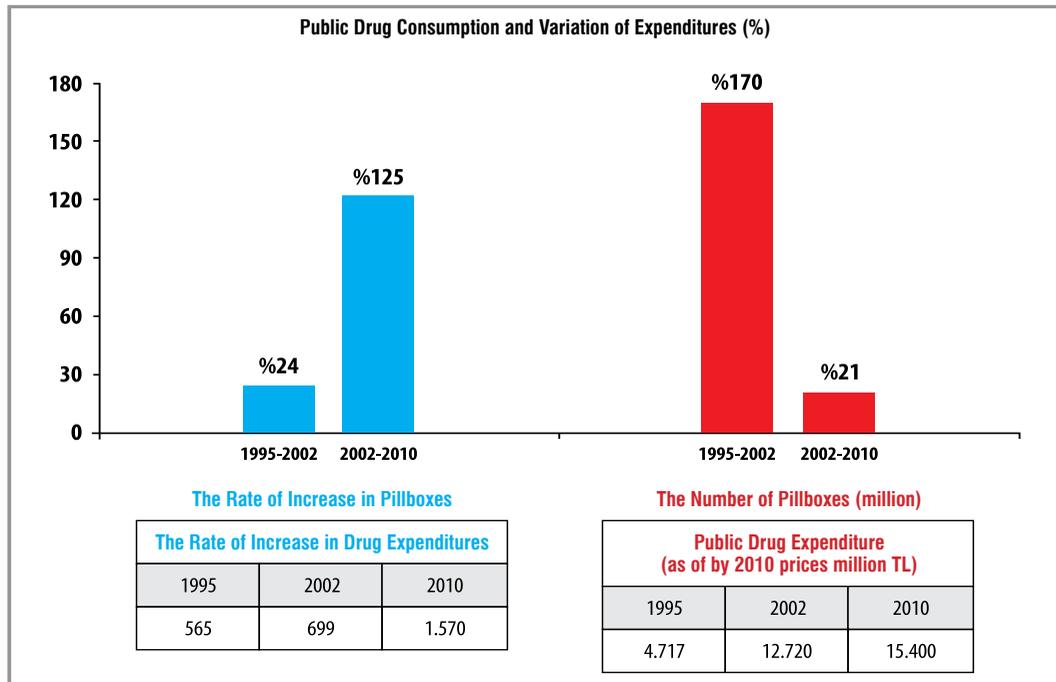
2. Opening Pharmacies to Everybody

We eliminated obstacles preventing our citizens (particularly SSK enrollees and Green Card holders) from accessing drugs through the reductions in drug prices were directly reflected to our citizens. Within the course of the Health Transformation process, decisive steps were taken to ensure easy and economic access to drugs and the result of those steps are observed by the public very closely.

People insured by SSK, who could obtain their drugs only from a limited number of hospitals, some of whom could not obtain their drugs from SSK and had to pay out of their own pockets, we have provided them to be free to obtain their drugs from the pharmacy of their choice like other Turkish citizens. We amended the Green Card legislation to cover the provision of outpatient treatment to Green Card holders and allowed these citizens to supply their drugs from the pharmacy of their choice.

With all these practices, we eliminated the discrimination among citizens that previously prevailed in the health care system.

3. Drug Consumption

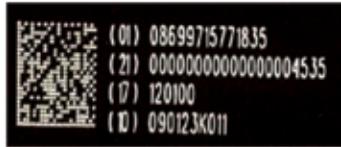
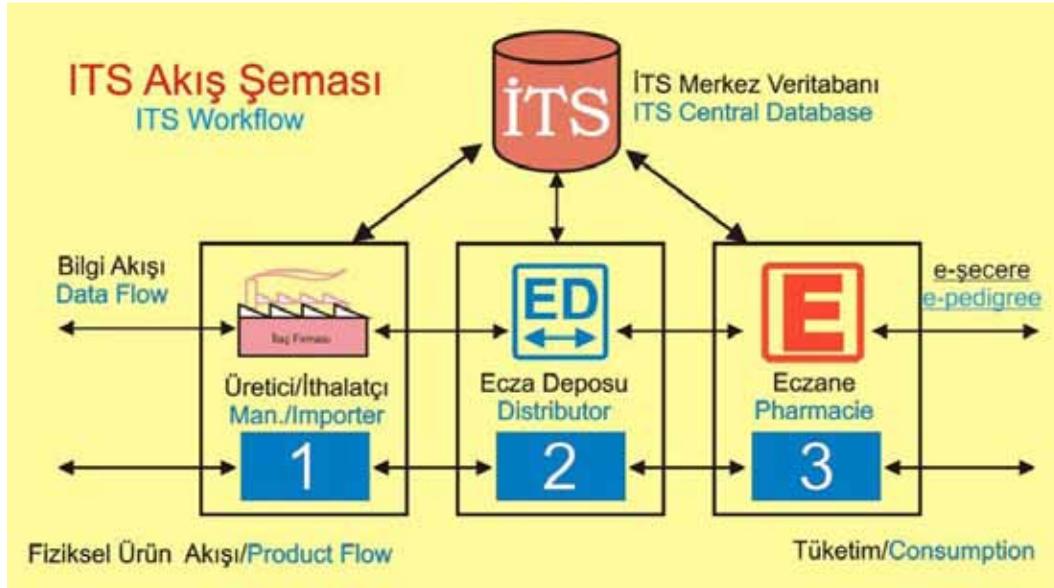


Graph 36

The amount of drugs consumed reached 1 million 570 million boxes in 2010, with an increase of 125% from 2002. During the same period, public spending on drugs has increased from 12 billion 720 million TL to 15 billion 400 million TL with 2010 prices and has increased by only 21%.

We have used this saving on drugs to facilitate the access of our citizens to drugs as mentioned above.

4. Pharmaceutical Tracking System (PTS)



“Pharmaceutical Tracking System”, known as PTS, defines an infrastructure that was established to trace each unit of pharmaceuticals in Turkey. PTS is another form of the structure defined as “Track & Trace” in literature and applied to pharmaceuticals. Ensuring the serialization of products, square code is used to ensure tracing of the products; and tracing of them is ensured through the notifications to the central database from each point where the pharmaceutical is passed,.

Production of high-quality pharmaceuticals, distribution and storage of them by considering the quality conditions are among the duties of the MoH. PTS is primarily designed to contribute to the aim of on-site detection of problems that might occur in the quality of pharmaceuticals and for rapid response. Through the developed system, all pharmaceuticals in the market are registered with a tracing number on box basis and it is ensured to trace them in each stage from production to consumption. Thus, corrupt practices regarding the drug clippings are prevented, and it becomes almost impossible to find counterfeit and unregistered drugs in the market. In addition, for the pharmaceuticals which were put on the market, in any condition that might emerge afterwards and might expose threats to public health, it would be possible to know where exactly each pharmaceutical is and it would be ensured to collect them easily.

PTS that we put into practice in Turkey took its place in the literature as a system connected to a “Central Database” which was introduced for the first time in the world.

As of 1 July 2010, we obliged the existence of square codes on drugs and their notification to the system by their manufacturers/importers for all products. As of 1 July 2010, we closed down clipping-cutting procedure at pharmacies, and the products began to be sold by being notified to the PTS. All reimbursement institutions began to perform their pharmaceutical payments by checking them over the system. In addition to these, we have included hospitals in the scope of the tracking system and began to follow the products which entered the hospitals.

5. Rational Drug Use

Unnecessary and wrong use of drugs is still a serious problem affecting treatment costs and public health both in our country and rest of the world. Thus, training and raising awareness of health professionals and public on rational drug use is very important.

Drug is effective but only if it is used properly. However, unfortunately 50% of drugs have been prescribed, sold and applied inappropriately as WHO mentioned so many times. More than half of patients cannot reach drugs properly. Unfortunately, there are serious problems in tracking drug use in many countries. This also makes it difficult to access the accurate data.

According to definition of WHO, rational drug use is; “obtaining the appropriate drug in suitable duration and dosage, at the lowest price and with ease according to the clinical findings and personal characteristics”. Thus, we can identify the principles of rational drug use as;

- Being based on true diagnosis.
- Choosing the appropriate drug; prescribing it in suitable dosage and in suitable way within the scope of treatment plan and using it in suitable duration.
- Measuring the success of treatment; monitoring side effects and patient compliance.
- Measuring drug interactions if more than one drug is used.
- Considering effectuation and cost of treatment.

We established Department of Rational Drug Use in order to extend principles of rational drug use throughout the country in 2010.

We planned the methods to be implemented as short, medium and long-term ones in order to raise awareness of public and health professionals and provide information to them on this issue.

Strategies are needed to activate the utilization of resources considering the continuous increase of health expenditures based on demographic, social and economic reasons.

Projects to be carried out will provide not only savings on health expenditures but also a positive public health development. Responsible people in this field shall have sufficient knowledge and opinion to develop understanding of rational drug use.

Our strategies in rational drug use:

1. Raising public awareness and consciousness.
2. Carrying out periodic assessment and evaluation to determinate the validity of methods to be implemented.
3. Including rational drug use in curricula of primary education.
4. Including program for rational drug use in curricula of medical and pharmacy faculties.
5. Preparing diagnostic treatment guidelines.
6. Transforming Updated Diagnosis and Treatment Guidelines into e-guide.
7. Providing web based accession to Drug Guidelines of Turkey.
8. Protecting principles of rational drug use in medical congress and including a session in this respect.

Today, we achieved the goal of “at the lowest price and with ease” which is one of the items in rational drug use definition of WHO. There are milestones need to reached for remaining items in relevant definition. We aim to make rapid progress in this field.



D. IMPLEMENTATION
4. Health Information System



E-Health Transformation (2003-2010)

We launched vision development and infrastructure works in the field of e-health with the Health Transformation Program in 2003. Health information system cannot be built solely by making investments in technologies. The establishment of the countrywide system depends on national and international health informatics standards, coding, classification and determination of terminologies. In addition, integration of daily working criteria of health professionals to these systems is also needed. Moreover, these requirements are more important than technologic investments.

We paid a great deal of attention when generating and collecting data so that the data should be in EU standards and even -if standardized- in the level of the world. We created systems such as standard definitions of the institutions providing health services within the scope of e-health vision of the Health Transformation Program, doctor data bank, internationally accepted disease classifications, coding for drugs and medical materials and institution coding. We have brought all of these systems into the use of sector.

Our e-Health vision is to establish National Health Information System (NHIS);

- which reaches the health data generated in adequate quality in national and international standards,
- which can be reached by individuals or institutions whose access rights and authorities are determined, by taking patient consents and protecting privacy and security,
- where every each individual can reach his/her own personal information or data,
- which is supported by decision support systems,
- which can be shared on the countrywide structure with a high bandwidth, and
- which is based on practical use of tele-medicine and tele-health implementations

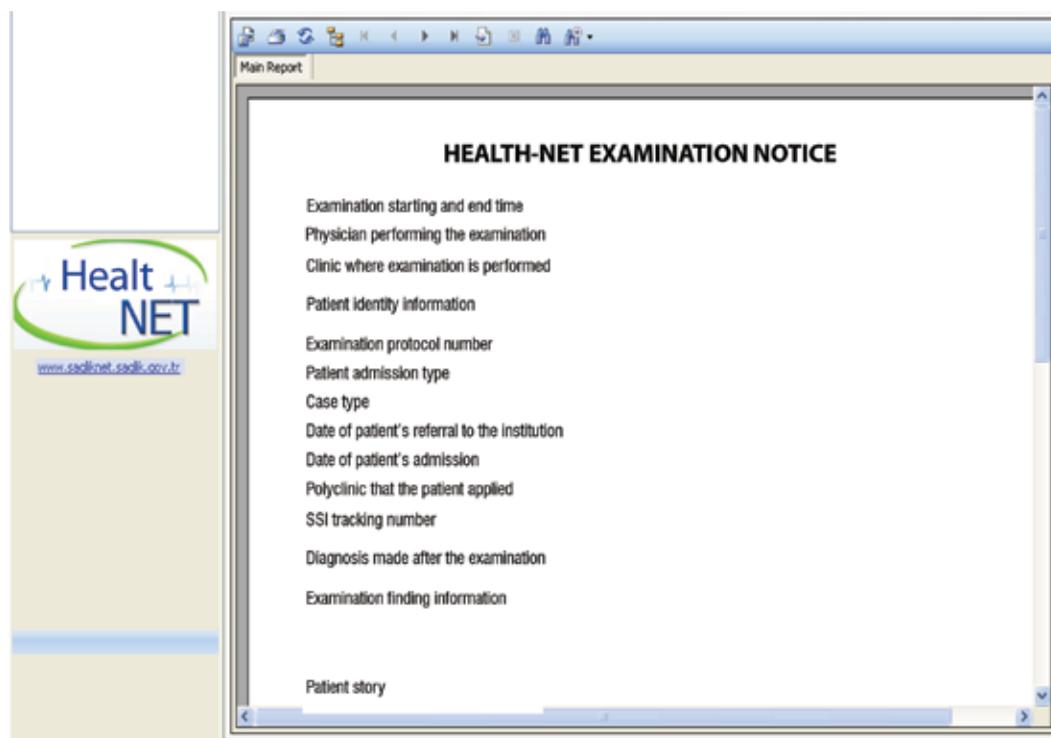


1. Health-Net

We activated the information and communication platform which aims to provide maximum benefit to an individual and public by generating reports and collecting all kind of data produced in health institutions directly and on an individual-basis from where they were generated, in accordance with standards.

In the past, data were collected in printed form and statistically; we started to collect all patient health data from birth to death by Health-Net system activated in 2009. We launched the sharing system of electronic health records of citizens between health institutions through Health-Net.

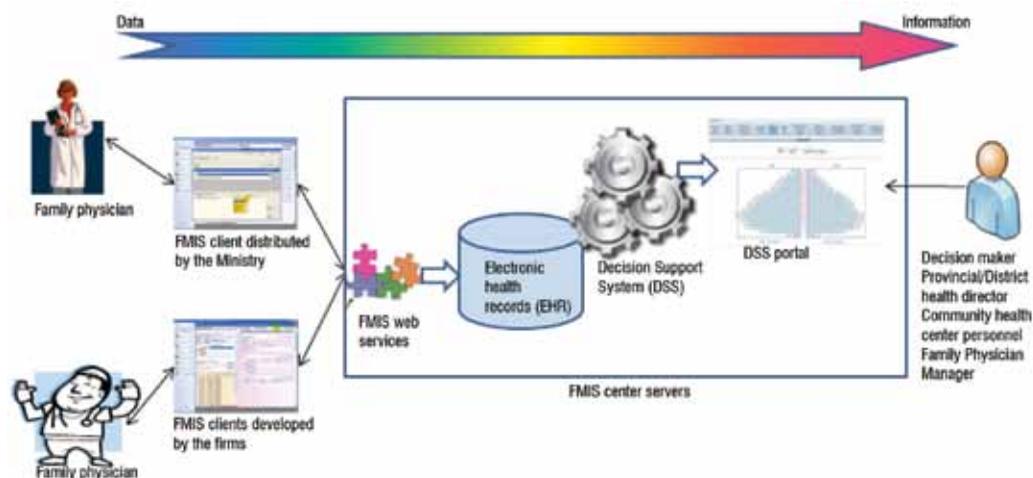
We took the first steps to provide countrywide accession of patient files, which were disconnected across the country, by adapting them into electronic patient files in for the benefit of patients through obligating studies and works we performed and standard coding systems to be able to register electronic patient records. We have integrated 85% of healthcare institutions and enabled them to send data to the system.



2. Family Medicine Information System (FMIS)

We provided data transmission of each service delivered by Family Physicians to data centre established by the MoH with coding in line with country standards, over FMIS, which we have developed as free-of-charge service. We generated an Electronic Health Record of each citizen. We have presented statistics produced by these files for the purpose of using them in decision-support processes to our administrators.

This system is established on the basis of family physician that provides primary health care service to each of the individuals. FMIS implementation follows an individual before birth and organizes all of data related to the individual's health. Individual's prenatal development data, birth method data and other data related to his/her birth is recorded by FMIS and takes place as the first data units of lifelong health data into data centre which is under supervision of family physician. This health record of individual grows with him/her throughout the individual's life.



By the system, we become more capable of reporting and evaluating services such as;

1. Maternity monitoring success rates
 2. Newborn-child monitoring success rates
 3. Vaccination success rates
 4. Referral rates
 5. The number of persons subjected to mobile service
- many systems in details.

3. Hospital Information Systems (HIS)

We increased the rate of computerization which was around 20% at the end of 2002 to 100% at the end of 2006 in the MoH hospitals. We gained momentum on the operations of hospitals to provide information and communication technologies services to every point of hospitals. We provided savings of time and information.



4. Web-Based Services

We developed 22 different web-applications which collect administrative and financial data requested in line with current necessities of the MoH units and senior management from its source and public and private institutions in a rapid and safe way via internet. We opened data which we have collected to share with other institutions in a very rapid and effective manner in the scope of legal authorizations and responsibilities. We ensured the continuity of the MoH official web page. We achieved to make up-to-date announcements of the MoH activities to our citizens.

5. Informatics Studies for Central Organization

We increased the use of computers in the process of service provision which was around 500 at the end of 2002 to over 3500 today. We provided trainings on computer literacy and basic computer literacy to personnel working in the central organization.

We have built general IT support mechanisms in the central organization and provincial units of the MoH. In this process;

1. We ensured the user management from one centre and the sharing and use of printers and other devices via network easily by establishing the domain system.
2. We set up the latest and licensed version operating system and office programs to computers in central organization units in order to ensure the adaptation of users to developing information technologies.

6. Green Card Information System (GCIS)

We established Green Card Information System (GCIS) in 2004 to provide an opportunity for supplying drugs given by green card prescriptions from any pharmacy. We have achieved to use the system without any problems since 2004 through 23.000 pharmacies and health directorates making payments.

It is intended to supply financial aids in line with the principles of justice and equity through “Conditional Cash Transfer”, which aims to provide full-service accession of primary care to children of families in the neediest segment of the population and pregnant women by Prime Ministry General Directorate of Social Assistance and Solidarity (GDSAS). We provided coordination between institutions for this purpose and also between GDSAS and GCIS of the MoH.

The screenshot displays a web-based interface for updating personal information. On the left, a navigation menu includes 'User operations', 'Main operations menu', 'Record book - Personal Information', 'Fast entry screen', and 'Personal information updating'. A red 'SAFE EXIT' button is located below the menu. The main content area is titled 'PERSONAL INFORMATION UPDATING SCREEN' and features a status indicator 'PERSON HAS ACTIVE GREEN CARD'. Below this, a list of fields for data entry is provided: Citizenship Number, Tax ID No, File No, Surname, Name, Father Name, Mother Name, Place of Birth, Date of Birth, Gender (with a dropdown menu), Address (with a text input field), Province (with a dropdown menu), District (with a dropdown menu), and Maiden name (with a text input field).

7. Organ Information System (OIS)

We generated the computer program including health and identification data of patients in order to provide organ in a fair, healthy and rapid way to patients waiting for organ by our own staff and resources in 2006. As of this date, we have achieved to perform kidney and liver transplantations from cadaver through this system in success. We will activate the regulations which provide the following of heart, lung, pancreas, heart valves, bone marrow, tissue, small intestine by 2011.

8. Data Bank for Disabled Persons

We established Data Bank for Disabled Persons which records all of disabled citizens living in Turkey in one centre and produces several reports by recording them in database. Reports of Disabled Persons in electronic environment are accessible by the authorities designated by laws from everywhere in Turkey, and our disabled citizens can exercise to their all rights in a fair and rapid way.

9. Document Management System (DMS)

We established Document Management System (DMS) to prevent document/paper loss and falsifying, follow-up in which process documents are, prevent unauthorized persons accession to documents, decrease document search and registry period, improve the efficiency, keep documents in a suitable and safe environment by a successful archiving and backing-up. We started to use e-sign / mobile sign implementation within the scope of Document Management System.

10. Core Health Resources Management System (CHRMS)

We activated Core Health Resources Management System (CHRMS) which was not used effectively despite the fact that it was established to register, follow-up and plan to all health care system sources of the country. We recorded buildings, equipment and tools, medical devices, medical consumables and financial resources of health facilities which belong to public sector and also private sector facilities, services and human resources through this system. In this way, we achieved a structure providing decision support analyses in planning studies for eliminating regional discriminations in the accession of health service. We have qualified implementations in line with global human and material resources management. We reduced wastage to minimum and directed new health investments to appropriate regions needing support.

11. Decision Support System

We designed more than 400 reports in line with several parameters, which were identified before, to present data incoming from different information systems by reporting them with statistic methods and we continue to revise in accordance with requirements. We put reports into service under access authorizations of users. The number of average daily reports generated by the system is 145.000.

12. International Projects and Developments

It is decided that electronic health implementations shall be used to improve health service quality and disseminate service delivery in the field of e-health for health care delivery in 2005 as a result of action initiated by EU for 2010. We followed the developments closely in the field of health informatics technologies in Europe between the years of 2005-2008.

We contributed to the preparation of standards in the level of Europe and the world by participating actively into works and studies in this field between the years of 2008–2011.

Our implementations and standards, of which some pilot implementations on health informatics projects has more workload and population in its scope than the population of some European countries, are carefully followed by European countries.

We prepared the necessary legal regulations in cooperation with all of the stakeholders in order to complete legal and technical infrastructure and we send it to the National Assembly. We opened e-prescription, personal electronic health records and tele-medicine implementations to public service following the legislation. In addition, we prepared the infrastructure to share patient summary and personal health records with EU countries within the scope of legal authorizations, patient consent and patient interests.



D. IMPLEMENTATION

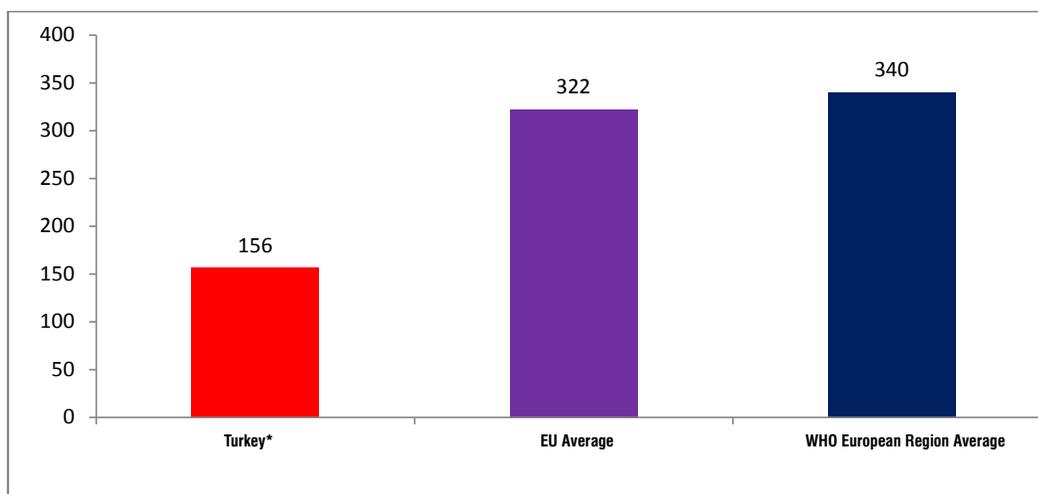
5. Institutional Structuring and Capacity Building

1. Health Labor Force/Human Resources for Health (HRH)

a. Determining the State of HRH and Planning Solutions

Before the Health Transformation Program, there were significant inaccurate approaches to human resources for health (HRH) in Turkey. The misconception that the “number of physicians is too much” has always been on the agenda. There was a similar approach to the number of nurses as well. However the truth is that the important principle of “quality in education” was used as an excuse in order to shadow the need to increase numbers. At the beginning of the transformation, we have drawn attention to the shortfall of these numbers. As of December 2010, the total number of physicians in Turkey has been 115.321 and the number of physicians per 1000 people has been 1.56. It is important to raise the numbers, particularly of the physicians and the nurses, without compromising education quality in HRH. In terms of the number of physicians per hundred thousand, Turkey ranks at the bottom of the WHO European Region. It is interesting that in Romania, ranking right above Turkey in the list, the number of physicians per hundred thousand is 192.

EU Average, WHO European Region Average and Comparison with Turkey for the Number of Specialists per 100,000 People

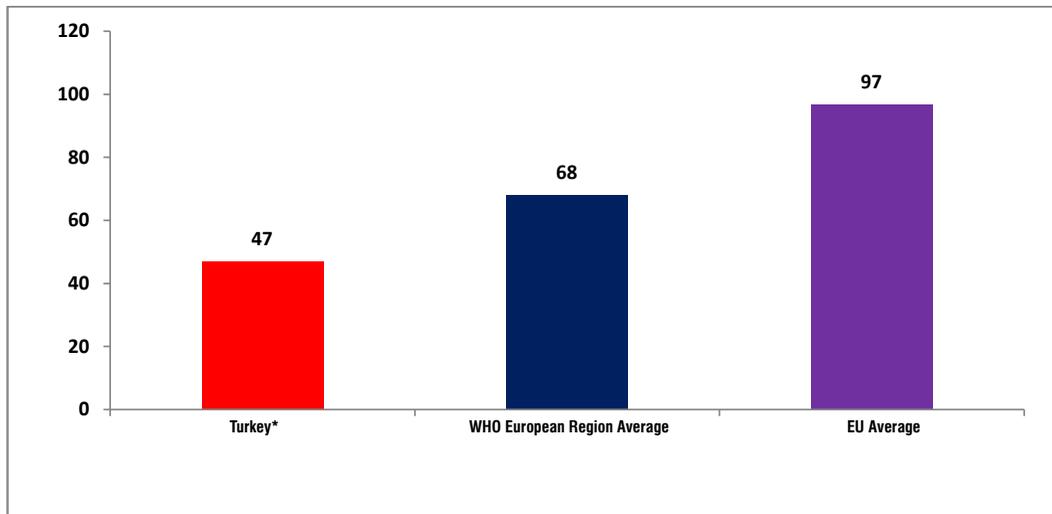


Graph 37

Source: WHO/Europe, European HFA Database, August 2009

* Figures dated 31 December 2010 have been taken as the basis for Turkey.

Comparison of EU Average, WHO European Region Average and Turkey for the Number of Practitioners per 100,000 People

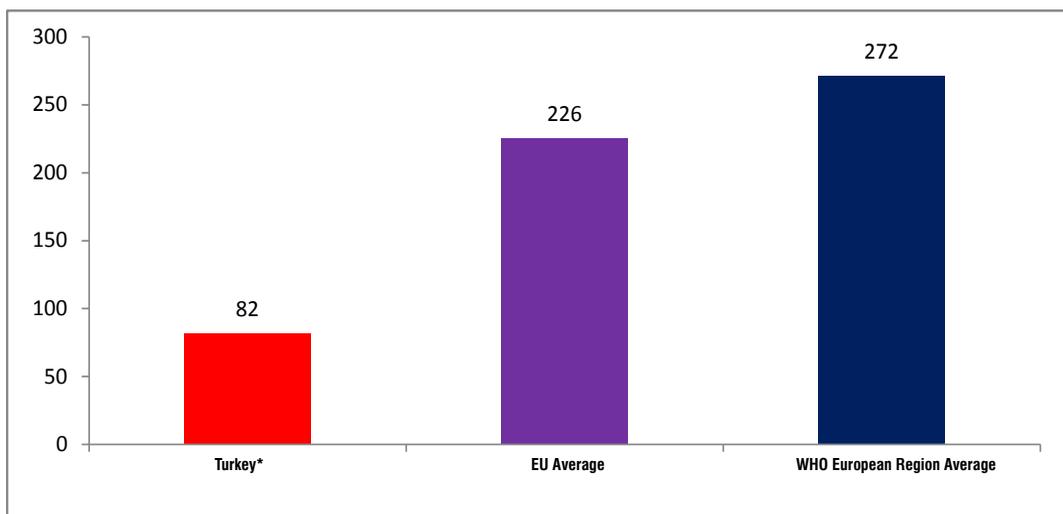


Graph 38

Source: WHO/European HFA Database, August 2009

* Figures dated 31 December 2010 have been taken as the basis for Turkey.

EU Average, WHO European Region Average and Comparison with Turkey for the Number of Specialists per 100,000 People

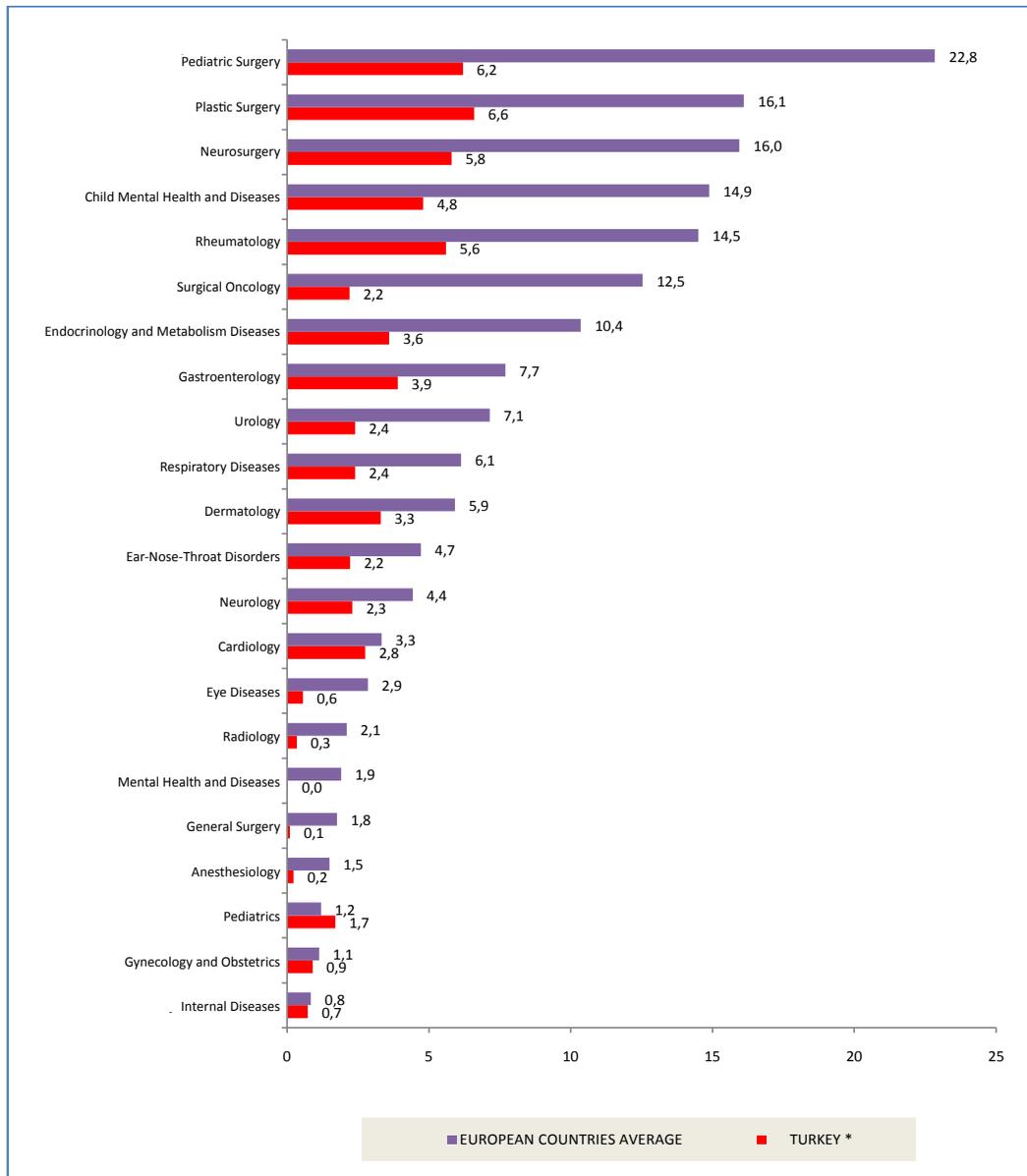


Graph 39

Source: WHO/Europe, European HFA Database, August 2009

* Figures dated 31 December 2010 have been taken as the basis for Turkey.

The Number of Specialists per 100,000 People in 22 Branches in 21 EU Member States and Turkey



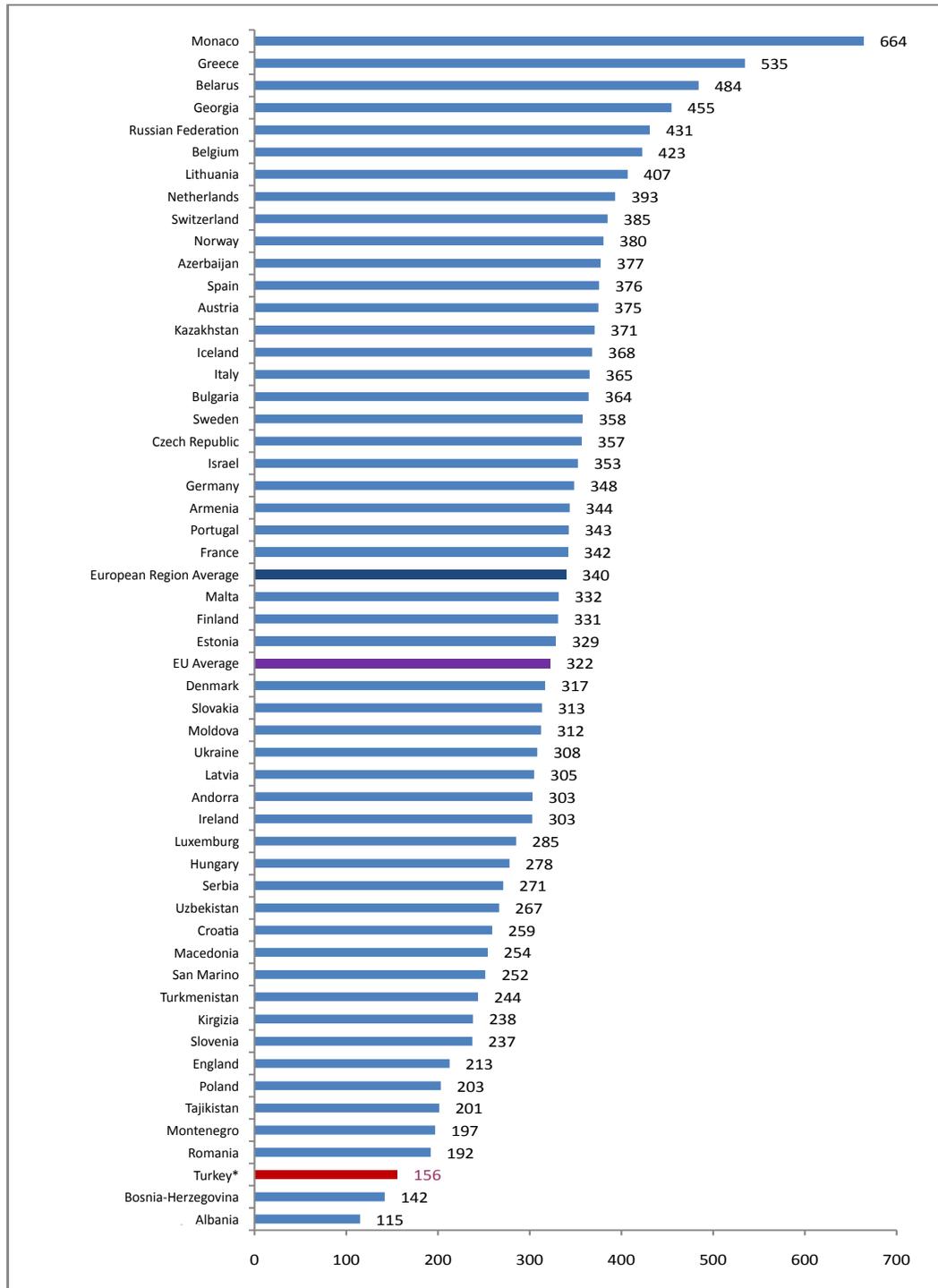
Graph 40

Source: WHO/Europe, European HFA Database, August 2009

* Figures dated 31 December 2010 have been taken as the basis for Turkey.

We have substantial deficiency of personnel in all branches other than brain surgery and neurosurgery.

The Number of Physicians per 100,000 People in European Countries and Turkey

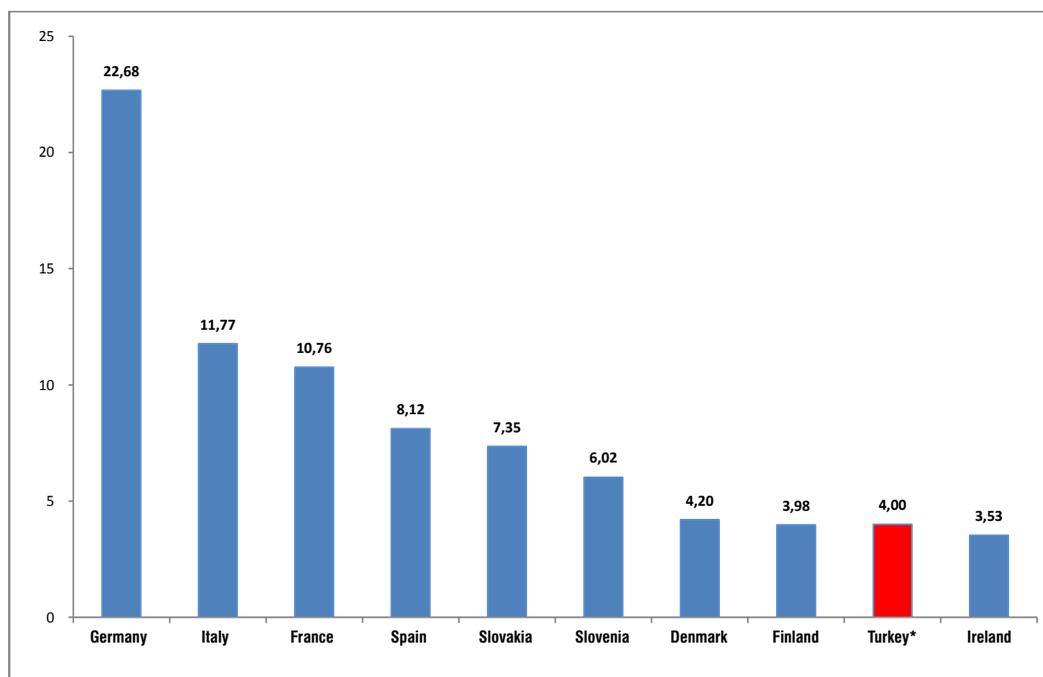


Graph 41

Source: WHO/Europe, European HFA Database, August 2009

*Figures dated 31 December 2010 have been taken as the basis for Turkey.

The Number of Students per Faculty Members in Some European Countries and Turkey



Graph 42

* Figures dated 31 December 2010 have been taken as the basis for Turkey.

Sources:

1) Higher Education Statistics (2010), OSYM Publications.

Note: Only academic members (Professors, Associate Professor and Assistant Professor) are included to faculty members.

2) Data collected by the Ministry of Foreign Affairs through the Embassies in EU States in 2007, 2008 and 2009

3) Physicians in Nordic Countries, Nordic Medical Associations, 2008

4) Statistisches Bundesamt, VI B – Hochschulstatistik, 2008

In Turkey, there are 38.369 students enrolled in schools of medicine and the total number of faculty members is 9.479. The number of faculty members per student is 4. The number of faculty members is sufficient in our country but it is out of the balanced distribution. To achieve the balanced distribution, the number of faculty member shall be increased in line with the requirements while creating new quota for a new school of medicine or regulations.

Financial Regulations and Developments for University Hospitals within the scope of Full-Time Law

A new period started in university hospitals since February 2001 by “Law on Full-Time Working”. Financial regulations were made in order to improve training and scientific activities, encourage the citizen-centered health service delivery and provide a sufficient and additional charge to faculty members and other healthcare personnel. The objectives of regulations are;

- Improving financial status of university hospitals, and
- Increasing supplementary payments of faculty members and healthcare personnel.

Table 5: Legislations Aiming to Improve Financial Status of University Hospitals and its Financial Effects

| | Regulation | Related Article | Its Financial Effect |
|--|--|--|--|
| 1 | Providing resources for the payment of accumulated debits of university hospitals | PROVISIONAL ARTICLE 9- Upon the request of the rector’s office of relevant university from health application and research units affiliated to schools of medicine under public universities, financial aid can be made to those parties, who are decided to be in a weak financial position within the framework of the criteria defined by a council including Minister of Finance, Minister of Labor and Social Security, Minister of Health, Government Ministers who are responsible for Undersecretariat of Treasury and SPO, and the head of Higher Education Council on condition that the party accepts implements the measures to be decided under a protocol and with the Cabinet decision as of one year after this article enters into force from the allocations to be transferred to relevant university budget by the MoF by giving the aid to the party’s revolving fund budget. MoF shall be responsible for performing required procedures and activities and determining procedures and principles in the scope of implementation of this article. | 380 Million TL |
| 2 | The fee, which was paid by patients for “private examination and operation services of faculty members”, is now paid by Government to the university hospitals as of 1 January 2011. | “Provisional Article 15- For the implementation of Item 58 (a) of Higher Education Law No.2547 dated 4 November 1981, in order to meet cash requirements to be offered in revolving fund units of health application and research units of schools of medicine and dentistry of public universities in 2011; the payment amount shall be made which is more than 10 % of the total incomes of these establishments in 2010 and the payment which is found by applying the wages against not-working in 2011 by the said establishments to the estimated deflator rate for 2011; in equal installments, in 15th day of each month at latest in 2011 by SSI. These amounts which is paid to revolving fund units shall be recorded to accounting record of the establishment as service income The payments made by SSI shall be met by treasury. The amounts of the months before publication of the said law shall be paid within one month by effective date of this article. Regarding to implementation of the said law, if required, the MoF shall be responsible for determining procedures and principles and preventing hesitations by getting comments of the MoLSS, the MoH, Undersecretariat of Treasury, SPO and Higher Education Council. | 435 Million TL The amount corresponding to the 10% of the income of every university hospital or the corresponding loss shall be paid in equal monthly installments to all university hospitals by the SSI as of February 2011. |
| 3 | Since February 2011, 10 % income of each university hospital or the amount of the loss in this respect is paid by SSI in monthly equal | Reducing “treasury share” to decrease expenditures of university hospitals. By regulation, deduction rate of treasury share, which is cut from the incomes of revolving funds, is reduced from 3% to 1%. | 85 Million TL |
| The total amount of resources additionally transferred in 2011 | | | 900 Million TL |

A new implementation introduced by the Law on Full-Time Working “Using Public Hospitals Jointly and Cooperation”

Using University Hospitals and the MoH Hospitals Jointly

Regarding to Law on Full-Time Working, the regulation is made for using University Hospitals and the MoH Hospitals jointly and ensuring cooperation among them.

By joint-use model, academic personnel in the schools of medicine and other personnel may work in the MoH hospitals and may take additional payment for this work. In addition, the hospital using jointly shall transfer 2.5% share of its income to school of medicine for research and development studies of university.

Only academic personnel may work in the MoH Hospitals and take additional payment according to cooperation model.

As a result of cooperation and joint-use in the scope of Law on Full-Time Working;

Newly-opened schools of medicine have training and research hospitals even in the establishing stage.

Personnel recruited in newly-opened schools of medicine shall not have additional payment losses through joint-use and cooperation. In this way, new schools of medicine may recruit faculty members without delays and have a rapid growth and development.

The quality of training for specialty in medicine will increase.

The MoH experiences in hospital management and knowledge on medical education and scientific studies of universities can be used together.

A Cooperation Protocol between Medicine Schools and the MoH Hospitals

Personnel assignments for the medical school cadres of Medeniyet, Yıldırım Beyazıt and Katip Çelebi Universities, which have been recently established, is going to be conducted via the cooperation protocol based on the condition of hiring for a period of 2 or 3 years in Anatolian provinces, where it is difficult assign faculty members . It is of great significance to appoint sufficient number of cadres by the HEC in terms of the functionality of the protocol. The faculty members assigned for these cadres are supposed to be hired in different provinces for a specific time period through the cooperation protocol. The need for the lecturer faculty members is planned to be fulfilled via these assignments.

The need for the lecturer faculty members is planned to be fulfilled via these assignments in the training and research hospitals opened by MoH in Anatolia (Adana – Diyarbakır – Van – Elazığ – Erzurum – Samsun – Trabzon – Kayseri – Kocaeli – Konya – Bursa – Antalya).

Redundant faculty members in search of a cadre in metropolitan cities are going to be assigned to these positions for a certain period of time in these universities.

The new medical faculty is going to use a MoH hospital jointly in the province it is built, and the faculty members assigned here are also going be appointed for the hospitals in other provinces through the cooperation protocol.

Under the cooperation protocol signed between medical faculties and the MoH, faculty members are going to be appointed on a voluntary basis to hospitals in other provinces in need for years through a rotation method.

We issued an ordinance and brought the regulations below in order to ensure that training of medical resident is effective and productive and to protect personnel safety:

These medical residents are not going to be on consecutive or every-other-day shifts, and shift schedules will be based on patient and personnel safety.

If these medical residents cannot take their off-days granted in return for the shifts, they are going to be paid duly by the 15th of the subsequent month.

A sufficient amount of payment is going to be allocated for the training and research hospitals for their revolving fund budget in a way to include expenses with regard to medical residents and any kind of training expenditure is going to be paid from revolving fund resources.

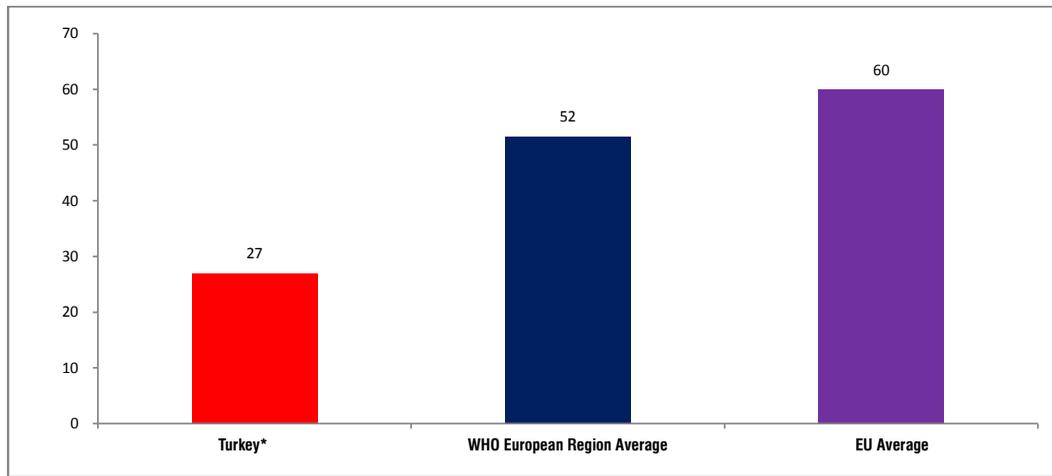
All kinds of training materials (books, scientific publications, etc) contributing to training and occupational development of personnel are going to be provided through revolving fund resources and the personnel is going to be encouraged to participate in occupational training and scientific activities.

Defects –if there is any- with regard to access to electronic scientific publications provided free-of-charge in current training and research hospitals are going to be removed and research assistants in medical schools along with other healthcare personnel are going to be provided with electronic or hard copy scientific publications, books and opportunities to participate in congresses.

Under the scope of the Implementing Regulation on Management of Inpatient Treatment Institutions, committees are going to be established in the hospital councils conducted in research hospitals, in order to carry out works in relation to the scientific activities of medical residents and the issues of patient diagnosis and treatment and it will be ensured that these committees function actively.

Medical residents conduct works and procedures requiring specialty under the supervision or accompany of clinic chiefs, clinic chief residents, chief residents or specialists. Therefore, the records pertaining to such activities and procedures are supposed to be registered on the name of these supervisors. However, it is not fair to register the works and procedures, which do not require specialized knowledge and skills and which are generally carried out by specialists and medical residents , under someone else's name; therefore this is unacceptable. Thus such works and procedures carried out by medical residents independently are not going to be registered under the name of relevant specialists or instructor. The points of those works and procedures are going to be included in the average service points of the clinic or the hospital.

Comparison of EU Average, WHO European Region Average and Turkey for the Number of Dentists per 100,000 People



Graph 43

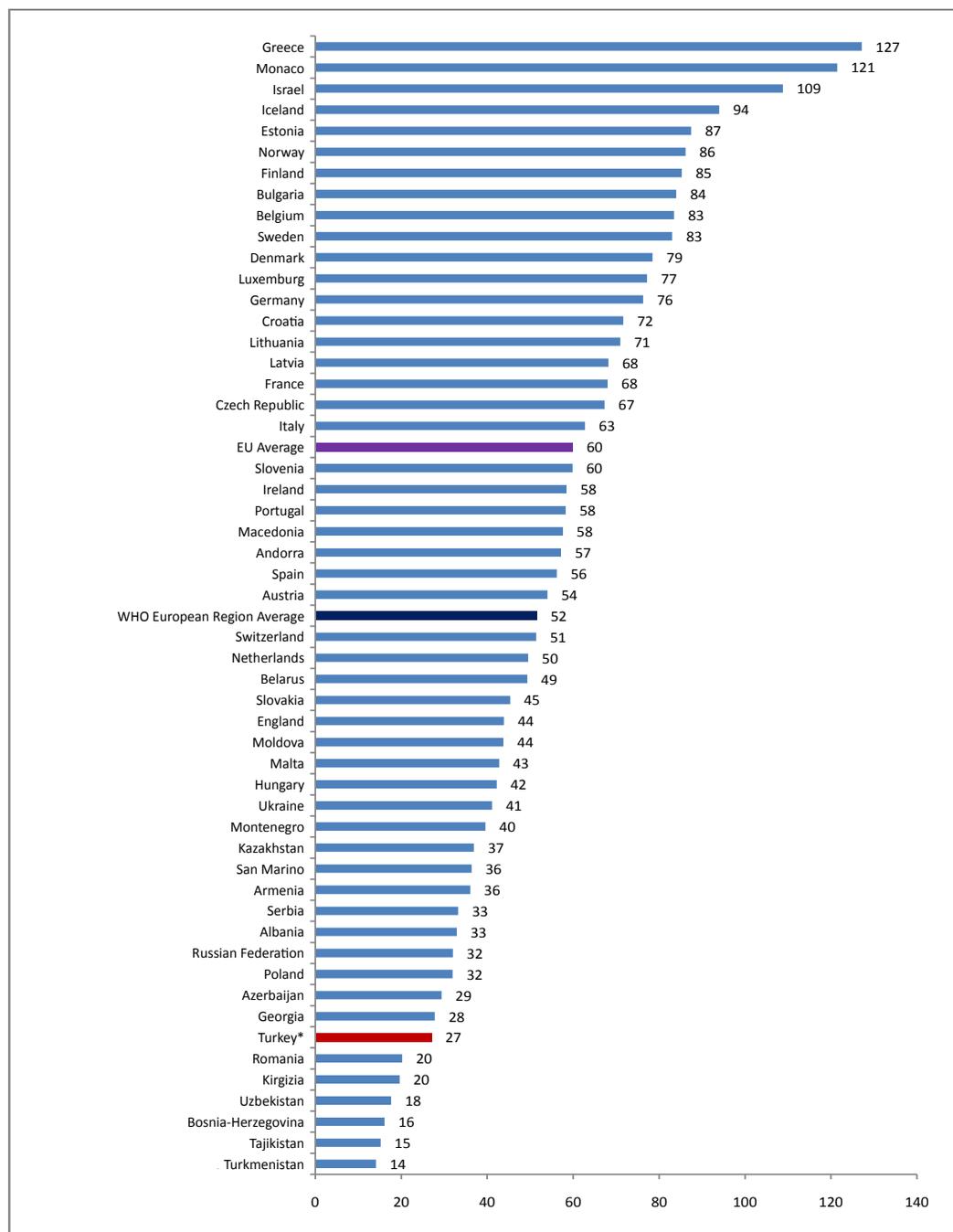
Source: WHO/Europe, European HFA Database, August 2009

* Figures dated 31 December 2010 have been taken as the basis for Turkey.



This picture shows HE Prime Minister, HE Minister of Health and the health professional during a Medical Festival.

The Number of Dentists per 100,000 People in European Countries and Turkey

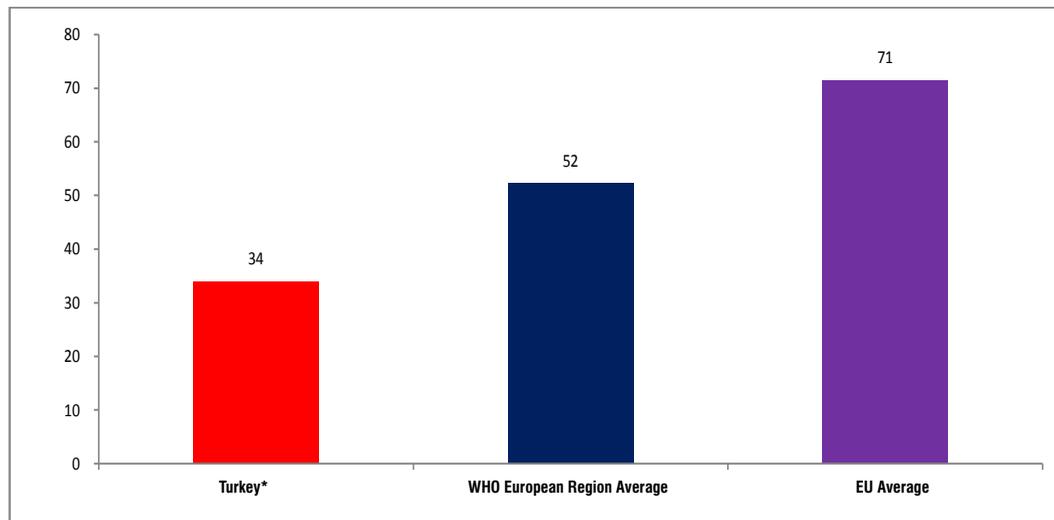


Graph 44

Source: WHO/Europe, European HFA Database, August 2009

*Figures dated 31 December 2010 have been taken as the basis for Turkey.

Comparison of EU Average, WHO European Region Average and Turkey for the Number of Pharmacist per 100,000 People

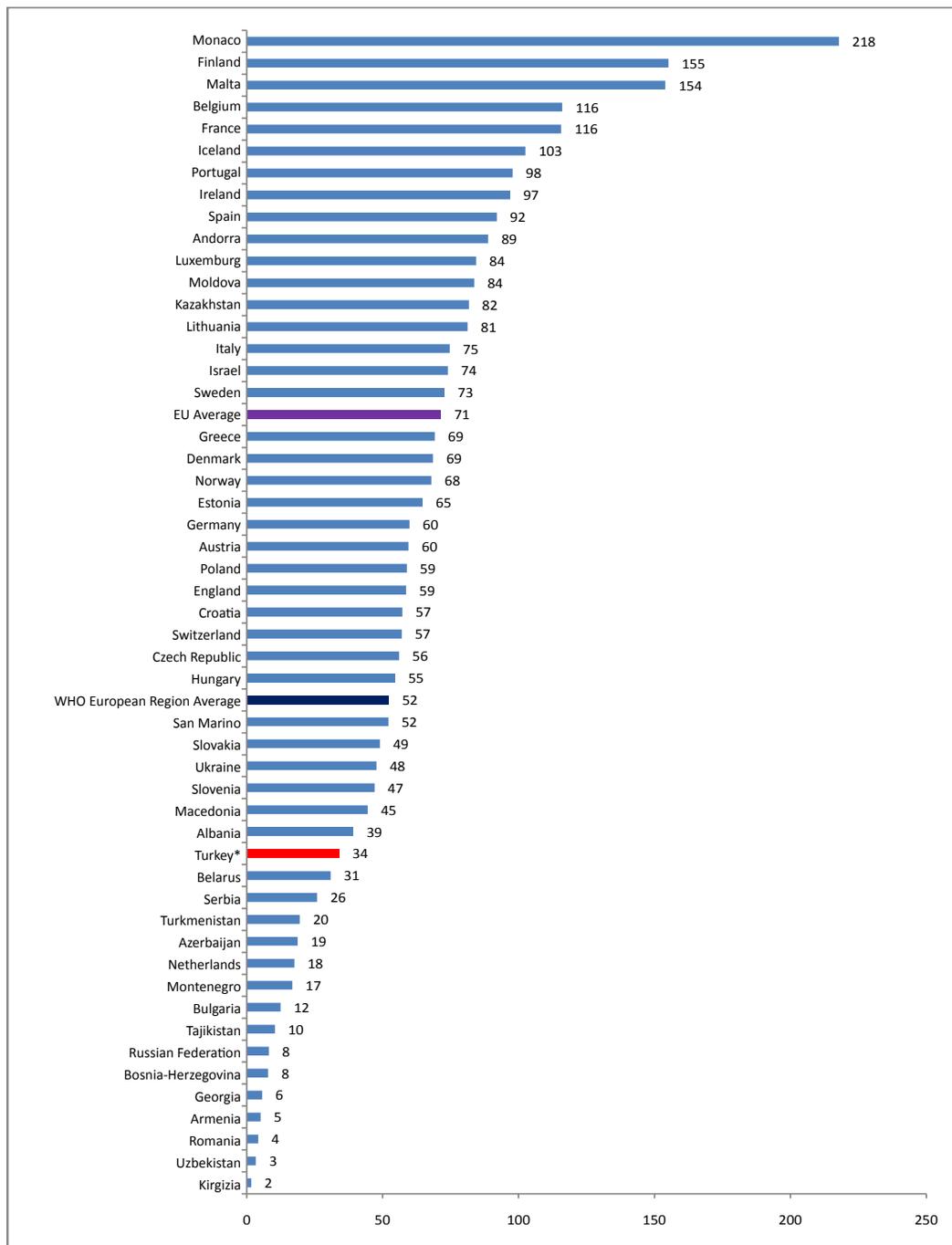


Graph 45

Source: WHO/Europe, European HFA Database, August 2009

* Figures dated 31 December 2010 have been taken as the basis for Turkey.

The Number of Pharmacists per 100,000 People in European Countries and Turkey



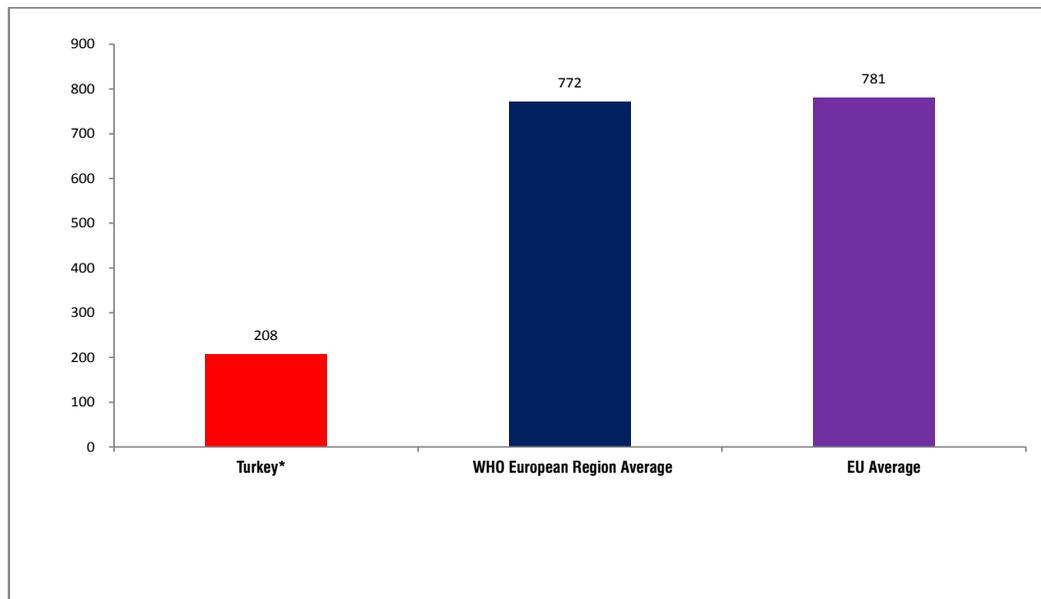
Graph 46

Source: WHO/Europe, European HFA Database, August 2009

*Figures dated 31 December 2010 have been taken as the basis for Turkey.

The situation is not different in terms of the nurses, physiotherapists, and many other health professionals. The needs of the population and the increasing demand for the health care services make it inevitable to increase the number of physicians and nurses. At the same time, the education quality must be preserved and even improved.

EU Average, WHO European Region Average and Comparison with Turkey for the Number of Nurses and Midwives per 100,000 People

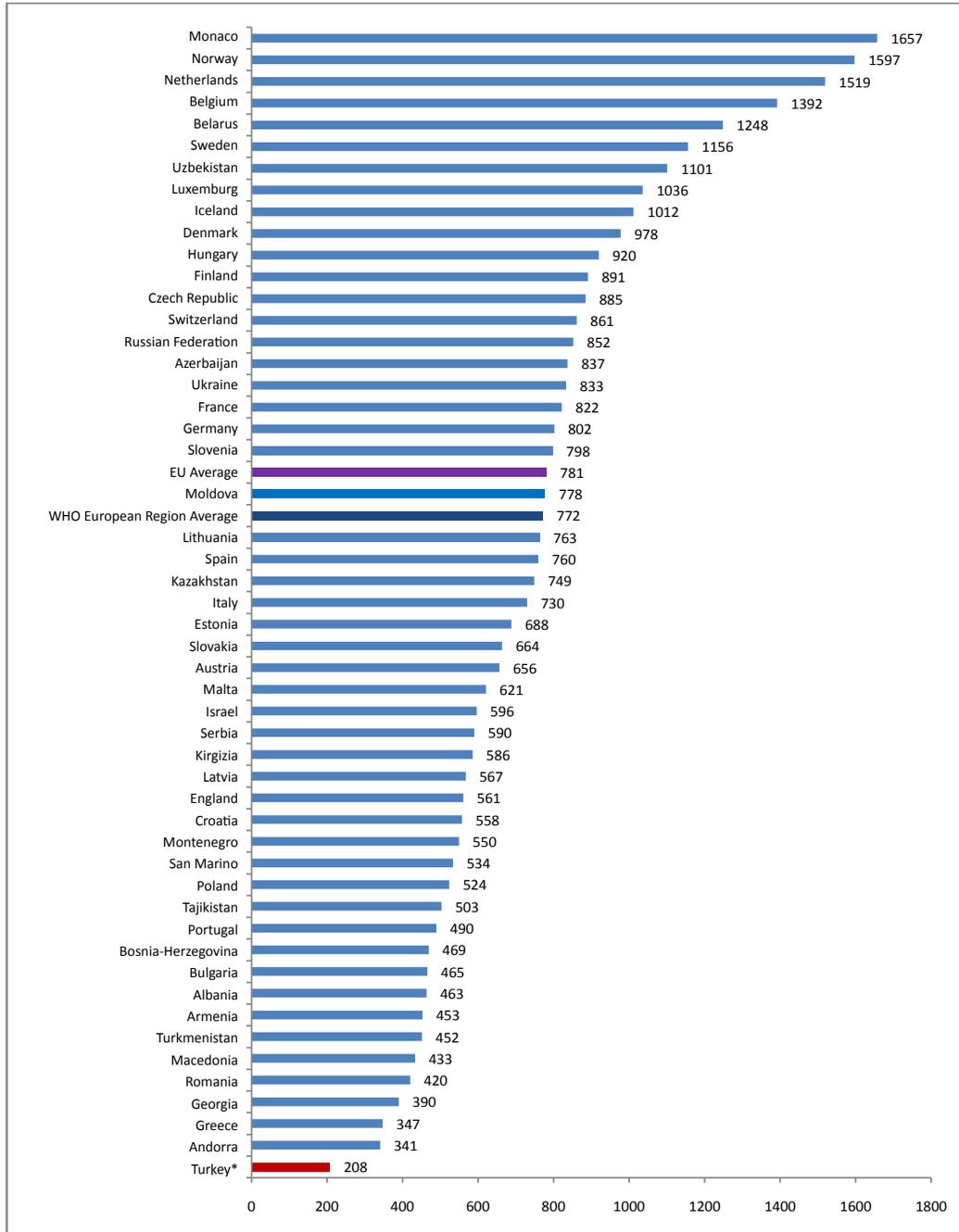


Graph 47

Source: WHO/Europe, European HFA Database, August 2009

*Figures dated 31 December 2010 have been taken as the basis for Turkey.

The Number of Nurses and Midwives per 100,000 People in European Countries and Turkey



Graph 48

Source: WHO/Europe, European HFA Database, August 2009

*Figures dated 31 December 2010 have been taken as the basis for Turkey.

Besides, the model of contracted employment under Article 4/b of the Law on Civil Servants, which was rarely used in the past, is started to be used by our Ministry particularly for regions and facilities deprived of personnel within the framework of the Regulation issued by the Cabinet. This way, 19.755 contracted healthcare personnel under Article 4/b and 84.838 contracted healthcare personnel under Law No. 4924 have been appointed by the MoH particularly to the fifth and sixth service regions regarded as deprived regions. In this way, the gap between the best and worst rates were diminished (for specialists: from 1/14 to 1/3; for practitioners: from 1/9 to 1/2.5; for dentists from 1/8.5 to 1/4; and for nurses and midwives: from 1/8 to 1/3.3). In the next few years, with the help of balancing efforts for provinces at the top or the bottom of the scale, the distribution of healthcare personnel will be more equitable. Another recruitment model is the recruitment of the staff working in outsourced services such as housekeeping, information processing, security, and catering. The number of these personnel was 16 thousand in 2002, and it is 118 thousand in 2010.

The number of personnel working for the MoH and SSK health institutions, which was 256 thousand in 2002, increased to 454.654 by 2010.

c. Transparency in Personnel Appointments

It is known that imbalanced distribution of personnel was one of the most important problems in our country in the previous period. One of the priorities of the Health Transformation Program is to bring regional disparities in personnel distribution down to acceptable levels, to determine realistic standards for titles in personnel employment and plan human resources accordingly and to establish an objective and equitable system for appointments and transfers.

We enacted the Law No. 4924 allowing employment of contracted personnel in order to encourage personnel to work in priority development regions. This way, we encouraged more personnel to work at less developed regions with more severe problems of personnel shortage.

There is already a shortage of physicians, and it is difficult to employ them in the less developed regions, since most of them like to work in metropolitan cities. Within the sense of providing accession to health care services for everyone, we put into effect the subsidized compulsory public service for physicians. Taking the former deficiencies and mistakes in the compulsory public service implementations into consideration, we made a new and sustainable arrangement which has more acceptable, identified, separate work periods and higher payment policies according to different deprived regions.

In order to prevent nepotism in personnel appointment and ensure more balanced distribution of healthcare personnel to all the MoH healthcare facilities, we prepared Regulation on Appointment and Transfer in a different understanding. According to this regulation, specialists, general practitioners, dentists and pharmacists are appointed by a computer-based lot, and other personnel are appointed by a central examination conducted in accordance with general provisions.

Personnel appointment and transfer proceedings are based on the “service points” that depend on the characteristics the region they are employed and the duration of employment. We launched a more strict supervision system for excuses. Use of service points and computerized lottery for appointments put an end to favoritism and nepotism pressures on politicians and bureaucrats as well as some unjust proceedings and speculations. Thus, we have achieved a marked success in the equal and balanced distribution of healthcare personnel across the country.

d. Healthcare Personnel Training

We attach a great importance to the training of health professionals of all levels, current managers and management trainees. We organized regional training events on technical topics on the one hand and systematic health management trainings online by School of Public Health for resource in an efficient, effective and collaborative way, on the other hand.

d.1. Distance Education

We aimed to provide education to all healthcare personnel particularly managers, management trainees and specialists through the Distance Health Education System (Turkish abbreviation is USES), which is an online distance education system of the latest technology in order to improve efficiency and service quality in all MoH institutions by the School of Public Health. You can visit the training page on <http://www.uses.gov.tr> .

More than 10,000 students including more than 1000 managers have so far received these trainings. 6000 of these students are still continuing various education programs. Around 4000 certificates have so far been granted to health professionals educated under various education programs in line with the ultimate goals.

We continue the second round of Health Management and Administration Distant Education Certificate Program by attendance of 465 new participators since 2009 which is prepared with an academic perspective on the basis of graduate programs and its first round was completed successfully by 256 of the 590 participants in total. We prepared education content with the contributions of leading academicians and provided to management level personnel and management trainees in the MoH institutions and organizations.

We are providing orientation trainings to family physicians to be assigned in primary health care and other healthcare personnel to be assigned in family medicine. We have prepared curricula, produced most of the education materials and initiated trainings for the second term of professional education program, which will last longer and will be conducted through USES for the most part. We have also continued to update training materials in parallel to the education.

d.2. In-Service Trainings

Updating Regulation of In-Service Training:

We updated and revised the “Regulation of In-Service Training of the MoH” which came into force in 1986. We put the new regulation into force on 11 November 2009.

By the new regulation;

- In-service trainings are started to be planned and carried out in an effective cooperation and collaboration with relevant units.
- We saved time and sources by combining trainings which have the same content and are organized separately by different units.
- We ensured that in-service trainings are carried out based on plan and programs in line with national development goals through objectives, missions, authorities, responsibilities and requirements of the MoH.
- We ensured that in-service training events are carried out in line with central planning by provincial health directorates.
- We began to use an evaluation principle during and after trainings in order to detect whether the expected results of the trainings are achieved at the end of the in-service trainings.
- We increased the number of in-service trainings and trainees.

d.3. Certified Trainings

Many certified training programs were conducted in our country until 2010 for healthcare personnel.

There were no established standards on principles and procedures regarding the renewal of certificates and there were variable practices for certified trainings conducted in professional fields of health by many other public and private institutions, primarily the MoH and universities.

With the aim of eliminating shortfalls in practice, preventing variable practices in certified trainings and bringing a specific standard to certified trainings, we put into force “**MoH’s Implementing Regulation on Certified Trainings**” on 21.08.2010.

With this implementing regulation

- We regulated principles and procedures on certified trainings to be delivered by the MoH, Turkish Armed Forces, universities, public agencies and organizations and private law legal entities and real persons in order to be equipped with professional competencies based on special knowledge and/or skills to be applied in the post-graduate period in the field of health.

- We make sure that scientific committees constituted by the experts of the fields settle the scientific and technical content, principles and procedures of certified trainings as well as all certified training fields.
- Certificates to be granted by the end of the trainings to be conducted according to this implementing regulation will be registered and recorded by the MoH.
- All certified training programs and training centers are regularly audited in line with the criteria set by scientific committees.
- We plan to deliver specific health care services by certified personnel with the aim of providing a more effective and quality health services.

d.4. Database Provided by TÜBİTAK ULAKBİM

Serving under TÜBİTAK, ULAKBİM (Turkish Academic Network and Information Center) started to facilitate the access of training institutions to information by providing National Licensing for databases as from 2006 with the purpose of facilitating the access to information of training institutions in Turkey which grant diplomas. Training and research hospitals affiliated to the MoH and providing trainings are also included in this service.

The number of databases in this service reached 9 in 2008; 4 in 2009 and 5 in 2010. There are 8 open-access databases in 66 training and research hospitals in 2011. These are UptoDate (Evidence based, instructional), BMJ Best Practice (Evidence-based), McGraw Hill Access Medicine (Evidence based, instructional), ScienceDirect Journal Consult, MD Consult (journals, books, patient and drug information and important series), Springer, Wiley Cochrane (Evidence based Medicine) and EbscoHost respectively.

e. We Meet at the Meeting Point for Health (MPH)...

Our aim is to improve employee satisfaction with a mechanism to deliver the criticisms, suggestions, questions and problems of healthcare personnel directly to the headquarters of the MoH.

Establishing a 360-degree communication and opinion sharing, it ensures transition from a communication environment where only rules are transmitted between agencies and their employees to a communication model where more informal and friendly relations could be established.

Questions and suggestions of healthcare personnel are first assessed by MPH team and messages are conveyed to relevant units. Feedback is given to healthcare personnel in the shortest extent possible on messages reviewed by the experts of the field.

Healthcare personnel are able to reach H.E. the Minister of Health via MPH and communicate their questions, problems, opinions and suggestions to him. In addition, healthcare personnel are able to share their exchange notices in a safe medium, to keep abreast of current events and to share their success stories with their colleagues.

2. Health Care Service Planning

a. Regional Health Care Planning

In most of the developed countries, the healthcare systems are structured so as to cover the whole population in the framework of quality standards and equality principles. While the approaches might differ, the financing and organization responsibility of the health services is shared between the central and provincial authorities. However, the central government is the main determinant in general.

In Denmark, the local administrations and the municipalities plan the health regions under the supervision of the government for health planning. In the UK, national and regional planning is directed by the central government with the participation of the local administrators. In France, regional health associations plan the hospital service within the framework determined by the central government. In Germany, state governments plan the hospital capacities in the framework of the national and regional legislation. In Canada, the planning is under the responsibility of the regional administrations, but the national framework is taken into consideration in some cases.

In Canada, France and Germany, the hospital planning covers both the public and the private hospitals. In fact, the private institutions are subject to permission within the scope of the planning in order to expand their activity areas. On the other hand, countries like Denmark and the UK limit their plans only with the public hospitals.

We have taken opinions from the provincial organization by the MoH during the works on the regional health plans. We paid attention to the reviews and findings of the central organization in provinces, demographic and geographical structure, region under coverage and distance to the center, transportation, local needs and existing health inventories.

We have planned reference hospitals/campuses in order to meet the needs for health training, institutional guidance and reference center in their regions. While before the Health Transformation Program, the delivery of health service was structured with the induction method from bottom to up as health house, health center, district hospital, provincial hospital and regional hospital; we have adopted the deduction method by taking the reference center as the basis with this planning.

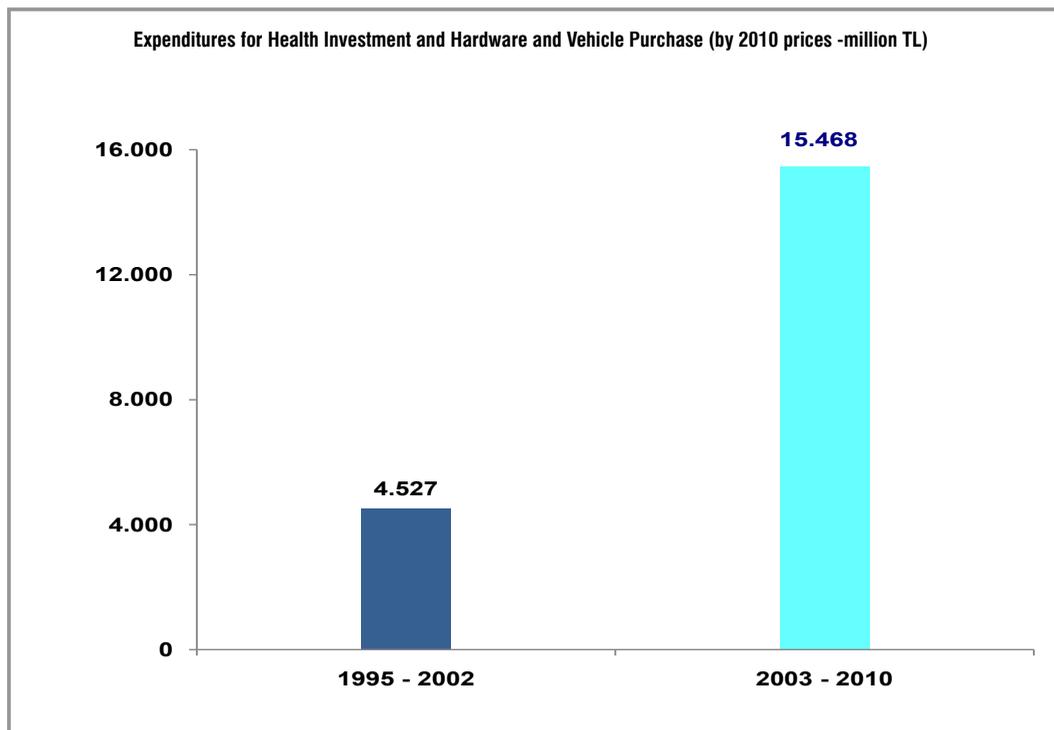
We have identified 29 health regions by taking the health requirements, geographical structure, patient flow, accessibility, socio-economic structure of the region into consideration.

In this respect, we have identified specific health regions, provinces to act as the health centers of their region in each health region and sub-regions of these central provinces in accordance with service provisions throughout the country. It is important to define the service provision roles of the inpatient healthcare facilities, which are already planned or at the phase of investment planning in the sub-regions, strengthened districts and smaller districts. The issues of classification according to the roles and restructuring according to the health requirements and expectations of the target population are also important.

We have made these planning at country level based on the population rate; we have also made regional distribution upon consideration of the adequacy of the physical environment, number of personnel, existence of tools and equipment and the regional disparities among specialty service units (such as ICU, CVS Centers).

b. Rationalism in Investments

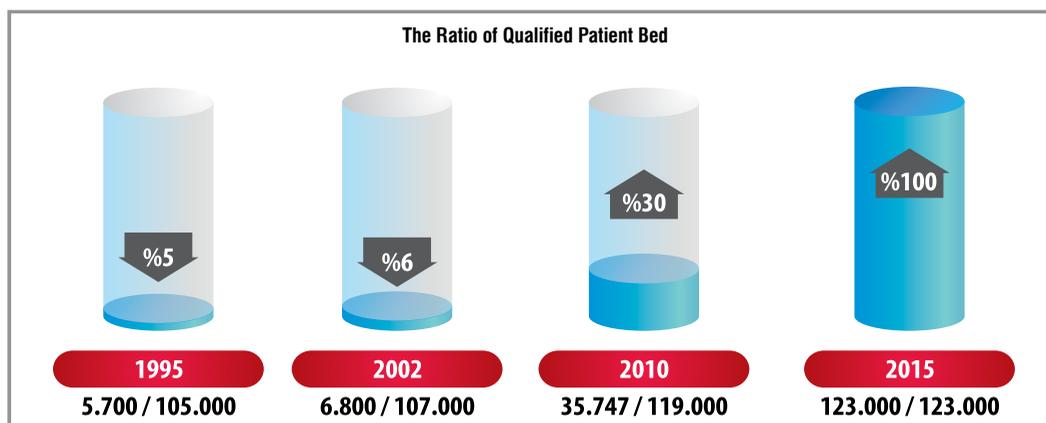
We have created a detailed health inventory with the Health Transformation Program by reviewing all the health investments. We have re-planned public health investments. We have reevaluated the financial, medical and technical analyses of investments. We have carried out these planning procedures on-site at the level of districts, provinces and regions together with the local administrators. We have begun to utilize investment budgets more logically by re-arranged projects in accordance with the priority and importance level and investment budgets.



Graph 51
Source: MoF-Central Administration Final Account Tables

We prepared the legislation which will enable investments to be made through public private partnership for the construction of new “patient centered” hospital buildings and hospital campuses and for the revision of some old buildings.

In fact, the number of beds per 100 thousand people in Turkey is 285 and this figure seems sufficient in the framework of the new tendencies in the world. However, we are replacing the existing beds by qualified beds. We will continue the investments by establishing modern structures accompanying this.



Graph 52

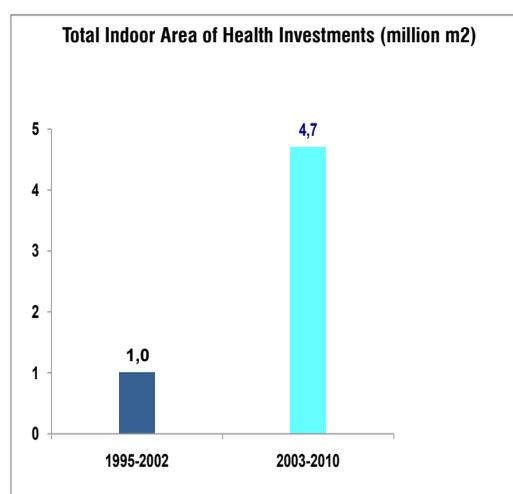
The ratio of qualified bed is 100 % for investments completed after 2003 and incoming ones.

In the last eight years, we have built and commissioned 1893 health facilities in total, 509 of them being hospitals and additional building and 1384 primary health care institutions to public. We have completed constructions waiting for a rebound for years. The number of patient beds put into service in the previous eight-year period was 7844, whereas the number exceeded 33 thousand in the recent eight-year period. 80% of the patient rooms constructed during this period have bathroom, toilet, television, refrigerator, telephone and companion seat and are in the class of “qualified patient bed”. The remaining 20% are not included in the class of qualified patient beds due to the projects initiated in the past, about to be completed and not allowing technical revisions. Therefore, the percentage of patient beds with bathroom and toilet in the total number of patient beds rose from 6% to 30%.

During the period 1995-2002, 254 hospitals and new blocks were constructed, whereas in the period of 2003-2010, we have completed and commissioned 509 hospitals and new blocks. We have achieved similar level of success in primary health care facilities. During the period 1995-2002, 647 facilities were constructed, whereas in the period of 2003-2010, we have completed and commissioned 1384 new facilities.

Health Investments

| Health Facility | 1995-2002 | 2003-2010 |
|---------------------------|------------|--------------|
| Hospital and New Building | 254 | 509 |
| Primary Care Facility | 647 | 1.384 |
| Total | 901 | 1.893 |



Graph 53

3. Efforts to Minimize Bureaucracy and Maximize Transparent Management in Health Care Facilities

Public health, public security, public order and implementation of other governmental policies can only be achieved by implementing regulations. However, implementing regulations increasingly cover broader scopes, get increasingly complicated and as a result operation costs rise.

Efforts that are made to minimize bureaucracy and ease administrative procedures pave the way for a reform process, which refers to intervening in this process, accelerating the flow of administrative procedures, alleviating the burden of harmonization with public sector regulations on individuals and business organizations and preserving the principle goals of regulations in fact.

While making and enacting these arrangements and implementing regulations, we aimed to build an effective, efficient, accountable, individual statements-based and a transparent public management framework and we also aimed to provide rapid, high quality and simple public services at lower costs.

We put the “Public Service Inventory Data Entry Program” into use in order to monitor and evaluate the public service inventories of the MoH departments and units. We gathered all information on intramural process and procedures - as well as information on public services – of the MoH central organization, provincial health directorates, population health centers and health center presidencies in this program.

We asked all provincial health directorates, health group presidencies/population health centers, hospitals and oral and dental health care centers to set their service standards especially for the services which are directly provided for people. We developed an inventory of services given in all central and rural organization units of public facilities. In this regards, we had the affiliated units develop tables indicating the services offered, the documents and information required and the time period of necessary processes and procedures. Later, we duplicated these tables in soft copy and hard copy; we hanged the prints on service buildings and we published the electronic tables on the web pages of health care facilities. These tables also guide people to application process and procedures and competent authority on condition that they cannot receive the services guaranteed.

We considered the following while developing these tables:

Steps towards a Simple and an Effective Public Service Delivery:

| | |
|--|---|
| <p>Request of Information and Documents</p> | <ul style="list-style-type: none"> • Do not request documents already available in the institutional records. • Do not request notary attestation, just see the original and get a copy. • Do not request copy of the birth certificate, criminal record, and residence entry and health record but receive just a personal statement instead. • Do not request any documents until the final stage of the procedure. • Do not request documents already available in other facilities' archives and get into contact with them. • • Take just a copy of a document not the original. |
| <p>Correspondence</p> | <ul style="list-style-type: none"> • Avoid unnecessary correspondences. • Put a deadline to correspondences and stick to it. • Make correspondences electronically. • Reduce the number of officers putting signature and initials and eliminate interim-ranking officers. • Review the incoming document in the presence of the applicant/visitor and let him or her makeup deficiencies at the very moment. • Issue a receipt form for the incoming document. • Handle and conclude the request relevant to the incoming document on due time set by the service standards and notify the positive or negative result to the applicant/visitor. • In case of a negative result, inform about the rationale and the contact information of the next authority. |
| <p>Devolution of Power</p> | <ul style="list-style-type: none"> • Provide the service in the closest neighborhood of the service receiver. • Join services all under one roof. • Devolve power downwards in central organization units. • Devolve power from central units to rural units. • Devolve power to downwards in rural organization. |
| <p>Disabled People's Access to Service</p> | <ul style="list-style-type: none"> • Construct ramps for wheelchairs in service buildings. • Construct lifts in service buildings if possible. • Establish a separate service counter or appoint a companion for disabled people if possible. • Provide proper signboards for disabled people. • Construct and properly design restrooms and bathrooms for disabled people. • Arrange disabled parking spaces properly. • Put a call button and appoint a reception officer for disabled people on the ground floors of high service buildings with no lifts. |
| <p>Service Standards</p> | <ul style="list-style-type: none"> • Identify service standards for all facilities. • Clearly describe the requested papers and forms. • Make a clear commitment for service delivery calendar and stick to it. • Indicate primary and secondary application units with contact information against any problems in routine service delivery. • Announce service inventory and standards in print in service buildings and on the web page of facilities. |

Devolution of Power in Licensing for a Simplified and Effective Public Service:

Production license, certification and accreditation of thermal springs, natural mineral springs, human-use water resources and peloides were devolved to governorships.

Legislative Amendment for a Simplified and Effective Public Service:

Examples:

Amended Implementing Regulations

- Oral and Dental Health Care
- Acupuncture
- Ambulances and Emergency Health Care Vehicles
- Dialysis Centers
- Homecare Services
- Hyperbaric Oxygen Therapy
- First Aid
- Cord Blood Banking
- Substance Addiction
- Optic Stores
- Organ and Tissue Transplantation
- Private Hospitals
- Licensing of Medicinal Products for Human Use
- Production Plants of Medicinal Products for Human Use
- Cosmetics
- Appointment of Contracted Healthcare personnel
- Fumigation against Pests and Insects in Public Health
- Issuing a Dental Prosthetic Technician's Certificate for Semiskilled Dental Prosthetic Technicians
- Board of Inspection
- Assisted-Reproduction Treatment
- Genetic Diseases Treatment Centers and Outpatient Diagnosis and Treatment Centers

~~Copy of the Birth Certificate, Criminal Record, Residence Entry, Health Report, Notary Attestation, Original Paper~~

Original Statement

We also incorporated family physicians into this process. Depending on the effective date of the family medicine implementation, we asked family physicians to complete the process by late 2011.

We made amendments to about 30 implementing regulations in the framework of the secondary and tertiary legislations which the MoH is responsible for implementation.

Thanks to legal amendments made in this regards, we managed to simplify bureaucratic process and procedures.

4. Public Hospital Unions

The “Draft Law on Public Hospital Unions”, which we developed in the context of “Administratively and Financially Autonomous Health Care Facilities” as a component of the Health Transformation Program, was brought to the TGNA General Board’s agenda after being discussed in the TGNA Planning and Budgeting Commission and Health, Family and Labor and Social Affairs Commission.

The draft law foresees further independence and flexibility in management of hospitals with regards to capacity use, resource exploitation and financing. Autonomous managerial units will have further responsibilities in addition to having further power and these units will make planning by considering their own resources, personnel investment, operation costs, budget and targets and strategic work load. We expect this responsible autonomy will lead to more rational resource management and more rational budgeting accompanied by further efficiency.

The principle of “Decentralized Management”, which has become prominent now with this draft law, raises the significance of auditing. Developing this draft law, we adopted an understanding of management which is based on the future, well-targeting, participation, outcome and human being-orientation and human being not the past, problem solving. Accordingly, we left the traditional understanding of management, which was rather based on the past experience and individuals, and we put further emphasis on objectives, performance indicators and supervision.

The MoH, which is now free from its traditional and unnecessary workload thanks to such measures taken, has become more capable to spend further time and energy for its core functions such as strategic thinking, future projections, mission and vision statements, primary objectives-policies-priorities development, measurable performance and success indicators designation and HRH capacity building. At this stage, the transformation in management will be well reflected and re-structuring of the MoH will be completed.

So, we aim to provide people with more participatory, effective, efficient, rapid, qualified and responsive health care services once the draft law is enacted.

5. The New Organization Law

The Health Transformation Program gives a vision which develops policies for the MoH, sets standards, monitors and evaluates the system as a whole, ensures effective, efficient and fair allocation and exploitation of resources and provides guidance. As a product of this understanding, the Health Transformation Program foresees decentralized management and strategic planning for the affiliated units of the MoH. So, the MoH will more effectively perform its task of “centralized planning” as also described in the Constitution. This component of the program targets effective and participatory management as a reflection of the modern public management.

While working on new legislations – such as the MoH Organization Law Draft primarily – aiming to restructure the MoH as planned on one hand, we also took a series of steps within the current legal framework. We encouraged decentralization and took some steps accordingly: the authority to open up, license and close down pharmacies; to monitor and inspect sales and consumptions of medicinal product manufacturers; to establish district outpatient clinics and population health centers; to set the rules and standards of overtime work; to devolve the in-city personnel appointments to provincial managers; to allow revolving funds-owning facilities to purchase health services; to award health care personnel by performance; and to raise the spending cap limits of revolving fund managers etc. can be given as examples.

We are still working on the “New Organization Law” which will optimize the MoH’s core functions such as stewardship, guidance and supervision.



D. IMPLEMENTATION

6. Cross-Border Health Care Services and the European Union

1. Dynamic and Friendly Foreign Relations

We have intense cooperation with many countries also including those that we have cultural bonds. We signed Cooperation in Health Agreements with various countries in order to build a legal basis for such cooperation. While we had 39 Cooperation in Health Agreements with 33 countries in 2002, today we have 87 agreements with 53 countries.

Signing such agreements, we put further emphasis on the exchange of personnel, knowledge and experience in health, direct and close contacts among scientific institutions and supporting commercial enterprises in private sector between countries.

Recently, we have developed cooperation in health with many countries such Sudan, Yemen, Afghanistan, Palestine, the Balkans, Central Asia and the Caucasus including the following activities:

- Technical support to developing health care systems,
- Educating and training healthcare personnel in Turkey or in that country,
- Organizing congresses and seminars,
- Performing surgical operations.

Apart from this, Prof. Dr. Recep Akdağ, the Minister of Health of Turkey, chaired the 56th European Regional Committee Meeting, which was held in Copenhagen with the participation of health ministers and other senior health managers of 53 WHO Regional Office for Europe countries. The Minister of Health of Turkey acted as the vice chairman of the 63rd World Health Assembly Meeting which was held on 17-21 May 2010 with the participation of 193 member states. Also, the WHO European Ministerial Conference on Counteracting Obesity was held under the presence of Prof. Dr. Recep AKDAĞ in Istanbul. Prof. Dr. Sabahattin AYDIN, the MoH Undersecretary, was elected as a member of the WHO Executive Board for three years. Prof. Dr. AYDIN is the fourth Turkish scientist, who has been assigned in the WHO Executive Board since 1948.

a. Education and Training

We provide health care personnel (doctors, nurses, health officers and technicians etc.) from many countries with short and long-term education and training either in scope of the Cooperation in Health Agreements or upon requests of the Ministry of Foreign Affairs and Prime Ministry-affiliated TIKA Presidency. Education and trainings are given in the MoH central organization and in the MoH-affiliated Training and Research Hospitals.

At the end of these education and training activities, foreign health care personnel put the knowledge and experience they gain in Turkey into the use of their nations. Turkish delegations, which make visits to these countries, witness that these foreign professionals offer health care services in their homeland more successfully and productively and that they make further progress in their career.

Such studies contribute to both HRH capacity development in these countries and advertising Turkey.

b. Patient Treatment

In the framework of the Cooperation in Health Agreements that we signed with Afghanistan, Albania, Azerbaijan, the TRNC, Sudan and Yemen, we allow transfer of a certain number of patients (limited by a quota), who cannot be treated in their countries, to Turkey for charge-free treatment. Besides, we provide treatment for foreign patients if requested by the Ministry of Foreign Affairs.

In addition, we will be providing charge-free treatment for a certain number of patients (limited by a quota) from Iraq and Kosovo once the Memorandum of Understanding on Cooperation in Health signed with Iraq and the Cooperation in Health Agreement signed with Kosovo comes into effect.

c. Pharmaceutical and Medical Supplies Aids

Also we give pharmaceutical, medical device and supplies aids to other countries upon the requests and recommendations of the Prime Ministry-affiliated AFAD Presidency, Ministry of Foreign Affairs and the Prime Ministry-affiliated TIKA Presidency.

d. International Health Care Facilities Supported for Repair-Construction Works, Medical Supplies and Management

- **Sudan Kalakla Turkish Hospital**

We restored Kalakla Turkish Hospital, which was built by Turkey in 1996. We equipped the hospital with medical devices and equipment, which were provided by Turkey, and re-opened to service on 25 June 2007.

- **Sudan Darfur Nyala Saharan Hospital**

General Directorate of Turkish Red Crescent built the Saharan Hospital in Nyala. Healthcare personnel are supplied by the Turkish MoH. In addition to this, we are working on pharmaceuticals and medical equipment supply to Sudan.

- **Southern Sudan Juba Training Hospital**

We equipped the Operation Theater, Gynecology-Obstetrics, Pediatrics and Imaging Units of Juba Training Hospital with our national resources at all.

- **Republic of Moldova - Autonomous Territorial Unit of Gagauzia**

Turkey grants financial, technical and humanitarian aid to the Republic of Moldova - Autonomous Territorial Unit of Gagauzia and recently Turkey has provided 3 hospitals located in Ceadir- Lunga, Vulcanesti and Comrat with medical devices, equipment and supplies.

- **Ethiopia**

We re-equipped the gynecology-obstetrics, pediatrics and newborn clinics, imaging center and operation theater of the Black Lion Training and Research Hospital in Ethiopia with medical devices, equipment and supplies which we provided in Turkey.

- **Pakistan**

Following the flood striking Pakistan, we provided 7 hospitals in the region with medical devices, equipment and supplies and sent the equipment in an aid plane on 21 and 28 January 2011. A technical team of the MoH is still continuing its work in the region.

e. Joint Health Weeks

We celebrate the Joint Health Weeks with our counterparts in line with the cooperation agreements and protocols that we signed.

Scientists, specialists and professionals, who take the chance to come together on the occasion of the Joint Health Weeks, exchange views and look for the ways for maximizing the existing cooperation.

We have celebrated the Joint Health Weeks with Afghanistan, Sudan, Yemen, Nahcevan, Iraq and the Autonomous Territorial Unit of Gagauzia and the Turkish scientists, health specialists and professionals have organized joint conferences and workshops in these countries, and the Turkish doctors have performed joint surgical operations and health checks with foreign colleagues so far.

f. Empowering Health Care Systems

“Health Systems Empowerment” is a subject of priority in the WHO agenda. In this regards, we give technical support and counseling services to Macedonia, Afghanistan, Sudan, Syria and Iraq with the aim of communicating the experience and knowledge to other countries, which we have obtained as a result of the actions that we have made under the Health Transformation Program.

g. International Aids in Disasters and Emergency Cases

Being the Turkish MoH, we give specialized personnel, medicines, medical devices, equipment and supplies aids to the countries and regions suffering from disasters (earthquakes, tsunami, floods etc.) in cooperation with other public organizations in Turkey such as the Turkish Red Crescent, Prime Ministry-affiliated General Directorate of Emergency Events, the Turkish Ministry of Foreign Affairs, Turkish General Staff and the Prime Ministry-affiliated TIKA Presidency.

In this framework:

- In January 2005, we sent 14 health care employees accompanying the Turkish Red Crescent to Aceh, Indonesia which suffered from the flood and tsunami striking the Southern Asia.
- On 26 December 2003, we sent a health team consisting of 81 members to Bam, Iran which was stroke by an earthquake.
- In January 2010, we established a mobile hospital and appointed health care personnel in Haiti after the earthquake.
- In August 2010, we started humanitarian and medical aid to Pakistan tat suffered from flood and we established 2 mobile hospitals, appointed health care personnel and sent medical devices, equipment and supplies to Pakistan. 2 Turkish hospitals are still functioning in Pakistan.

2. Efforts in the EU Negotiation Process

Once the negotiations for accession to the EU were officially started, Turkey took yet another turn in harmonization of national legislation with the EU legislation. In this context, the Turkish MoH is charged with “Protection of Health”. The efforts that Turkey has made for EU harmonization are briefed as follows:

a. Protecting Consumers and Health

In line with the projects and action plans of the MoH, we conducted studies on:

- Communicable Diseases,
- Blood and Blood Components
- Tissue-Cell,
- Organ,
- Tobacco, Alcohol and Substance Addiction

- Electromagnetic fields¹,
- Cancer,
- Nutrition and Physical Activity, and
- Mental Health

The studies, which we conducted in relation with the closing criteria of “Protecting Consumers and Health”, are briefed in the following:

a.1. Communicable Diseases:

In the process of accession to the EU, Turkey put emphasis on the surveillance and control of communicable diseases and made an impressive progress.

The MoH declared the “Strategic Plan to Empower the Surveillance and Control System for Communicable Diseases 2009-2013”, which identifies the priorities, develops a road map and describes the actions in communicable diseases.

In this context, we updated the disease notification system, made case descriptions for standard notification and harmonized our system with the international disease networks in order to join the EU and WHO more effectively with regards to data share. Besides, we introduced case and laboratory tests-based notifications in communicable diseases diagnosis and ensured data and technical information flow to the EU in order to fight with the problems occurring from the trans-border nature of communicable diseases.

We took some important steps to improve relations with the European Center for Diseases Prevention and Control (ECDC) which is the primary authority of communicable diseases surveillance and control in the EU. We benefited from the EU’s technical support, knowledge and experience in communicable diseases. For example, we received technical support from the ECDC in fight with the recently emerged diseases such as swine and avian influenza.

a.2. Blood and Blood Products:

We issued the Blood and Blood Products Law in 2007 and the Blood and Blood Products Implementing Regulation in 2008, and we drew the necessary framework so. We published the Blood and Blood Products Guideline in July 2009². Following the publishing of the 2nd guideline, we have already accelerated the establishment of the Regional Blood Centers.

-
1. The authority to make arrangements for electromagnetic fields was granted to the MoEF by the Prime Ministry.
 2. This guideline is based on the European Directorate for Quality of Medicine and Health Care (EDQM) guideline. The EDQM updated its guideline and the National Blood Guideline of Turkey will be soon updated accordingly.

In contemporary medical literature, blood is described as a “medicine of vital importance the mere source of which is human being”. In this regards, the MoH took a major step by developing the new blood legislation and resolved to establish regional blood centers. So, tradeoff in blood transfusion was replaced by volunteer, regular and charge-free blood donation, which is a must for safe access to blood indeed. Today, we can provide all people with safe blood in compliance with the EU standards. In the new system, all stages of blood transfusion are closely monitored from donor to receiver and vice versa, and all severe reactions are immediately reported to the MoH. Also, the MoH gives comprehensive trainings to people in safe access to blood and regulates technical requirements of quality systems of blood-relevant health care facilities.

So, people have safe and easy access to blood based with advanced techniques in modern facilities.

a. 3. Tissue and Cell:

We completed the studies on the “Implementing Regulation on Human Tissues and Cells and Quality and Safety of Relevant Medical Facilities”.

With this Regulation, we set the EU standards for all processes and procedures relevant to human tissue and cell transplantation including immunization, supply, labeling, registration, monitoring, testing, packaging, storing and distribution.

So, we set the highest quality and safety standards to protect human being's life and regulated basic principles of tissue and/or cell centers, supply facilities and test laboratories for establishment, management, personnel and service infrastructure and supervision.

As known, tissue and cell transplantation is a curative method which can save life. Therefore, these efforts made direct contribution to promoting the health of people in Turkey.

b. Intellectual Property

Intellectual property rights refer to literary works and the rights of literary work owners producing works in industry, science, literature and art fields. The MoH is interested in pharmaceutical patents with regards to industrial property rights. In our country, industrial property rights are registered by the Turkish Patent Institute.

Pharmaceutical patents concern the MoH with regards to outcomes because pharmaceuticals are the products of a long-term and high-cost research and development process. Therefore, a “pharmaceutical patent” has a specific significance for encouraging and boosting innovations in the pharmaceuticals sector. As a result of the MoH's efforts in this field, Turkish people have easy access to low-cost and high-quality pharmaceuticals. Also, the MoH supports R&D studies and innovative enterprises in the pharmaceuticals sector.

c. Environment

Under this heading, we conducted studies on drinking water, swimming water and biocides.

c.1. Implementing Regulation on Drinking Water

The MoH issued the “Implementing Regulation on Waters for Humanitarian Consumption” and harmonized the national legislation with the EU legislation. The safety of water consumption and the physical inspection of the quality of manufacturing facilities are regulated in this framework.

At the same time, this Implementing Regulation allows the MoH to monitor, inspect and report drinking waters. In case of need, the MoH is authorized to impose necessary sanctions.

The MoH continues to make efforts for developing necessary mechanisms with the aim of establishing a data base and managing improper conditions relevant to monitoring the quality of drinking water. For this purpose, the MoH will implement the EU project titled “Emergency Management and Risk Analysis of Drinking Water for Public Health Protection” in the 2nd half of 2011.

c.2. Implementing Regulation on Swimming Water Quality

As a part of the MoH efforts aiming to empower the quality of swimming water monitoring, a project, which was developed in relation to the “Implementing Regulation on Swimming Water Quality”, was approved by the EU and the project will be started in 2012. Besides, we collaborate with the Ministry of Forestry and Environment pertaining to the regular monitoring of swimming water quality and taking precautions when necessary.

c.3. Implementing Regulation on Biocides

We successfully completed an EU project on biocides in 2008 and issued the Implementing Regulation on Biocides in 2009. After the project was completed, we gave trainings to 200 biocides control personnel. Moreover, we raised the number of personnel working on biocides in the MoH Central Organization.

d. Efforts Made for Developing the Market Surveillance and Control (MSC) Infrastructure in 2003-2010

MSC refers to the control of government agencies over the movements of related products within the market in order to monitor if these products comply with necessary laws and legislations in both pre-marketing and marketing stage, and to impose necessary sanctions if not.

Although the MoH has been functioning as a control authority in order to protect public health for long years, the notion of “controlling within the framework of the EU-harmonization” is somewhat new in Turkey.

Responding to this recently emerged need, the MoH issued the “Implementing Regulation on the Principles of the Market Surveillance and Control Activities of the MoH” on 25 June 2007.

With the MSC, we developed a system which targeted top-level protection of human being’s health and safety by keeping people away from unsafe and non-standard products in the market and immediately and effectively taking the precautions required.

In the context of the MSC, we have strengthened the laboratory infrastructure, trained and certified the controlling personnel, coordinated controls and conducted activities to determine and impose necessary sanctions in case of inconformity so far.

Also, being the MoH, we undertake the control over medical devices, cosmetics, toys and detergents. In 2009 and 2010, we issued a surveillance and control legislation for bleachers, pool chemicals, and air aromatizing products, sanitary pads and diapers.

e. EU Projects

The EU-funded projects, which the MoH conducted in 2002-2010, are listed in the following:

“Public Health” is the top priority field, for which the MoH has received support from the EU so far.

Turkey and the MoH took some significant steps in harmonizing the national legislation with that of the EU through conducting the below listed studies in 2004, 2005 and 2008:

- Strengthening the Epidemiologic Surveillance and Control System for Communicable Diseases in Turkey – I
- Strengthening the Epidemiologic Surveillance and Control System for Communicable Diseases in Turkey – II
- Communicable Diseases Surveillance and Control Project (III)

With these projects, we received more than 14.000.000 Euro fund from the EU.

The EU's financial support continued with other funds granted for blood, tissue-cell and organ transplantation.

With more than 3.000.000 Euro fund that we received from the EU for the "Empowering the Blood Supply System Project" in 2008, made efforts to approximate the national quality and safety conditions to the EU norms.

The MoH will be receiving more than 6.500.000 Euro fund in 2011 for the projects titled "Harmonization for Tissue and Cell" and "Harmonization for Organ Transplantation" implemented in 2009. Medical procedures relevant to tissue and cell are rapidly advancing. New opportunities come into the stage for many diseases which were incurable in the past. In this regards, the Harmonization for Tissue and Cell Project aims to establish quality and safety standards, and to minimize infection risks in surgical procedures this way. By implementing the Harmonization for Organ Transplantation Project, similarly, we aim to establish quality and safety standards in organ transplantation, as well.

With the "Reproductive Health Program" of about 60 million Euro fund, we made efforts to increase the institutional capacity in Turkey and we supported the NGOs with grants.

The "Project of Support to the Turkish Feasibility Assessment Agencies" (2002-2007), which had five different beneficiaries, aimed to support the infrastructure of MSC laboratories and to train the laboratory personnel for detergents, medical devices and toys, towards which some severe progress had been already made. Under the Project, we provided equipment supply for medical devices and detergents and trained the personnel.

In the framework of the "Project of Strengthening the Capacity of Ministries in Turkey for Market Surveillance and Control Activities in Certain Fields" (2006-2008), which is another EU-funded project jointly implemented with five ministries pertaining to strengthening the MSC activities, the MoH received 1.5 million Euro fund from the EU for medical devices. Under this Project, we developed a MSC strategy, established a surveillance system, and trained personnel and auditors.

We carried out the "Safety of Toys Project", supported within the framework of the EU Leonardo da Vinci Occupational Training Program with the participation and contributions of various universities and private sector companies under the guidance of the Refik Saydam Hygiene Center Presidency (RSHCP) in 2007-2008. We carried out this Project, which had approximately 500.000 Euro budget, jointly with Spain, Portugal and Italy. With this Project, we raised the awareness of trainers, who are in charge of training 0-14 aged consumers, toy manufacturers, importers, dealers, auditors etc. for safety of toys and child health. We informed consumers of proper toy selection methods and risks of toys; we informed actors in the sector of technical guides, scientific researches, reports and standards particularly. We shared the Project activities and outcomes with all stakeholders on the web site that we had designed especially for this purpose (www.safetyoftoys.org).

With two other projects that we carried out for safety of toys, we provided a fund of about 200.000 Euro for the MoH and we conducted studies to ensure access to safer toys for children.

Besides, we conducted the “Good Laboratory Practices (GLP) Project” in cooperation with the Ministry of Forestry and Environment and the MARA. The Project, which was started in June 2006 and concluded in 18 months, aimed to empower the administrative and technical capacity of Turkey to harmonize the national legislation on GLP with that of the EU and we developed a new legislation.

Finally, we adapted the RSHCP Control and Research Laboratory to the EU standards under the “Quality Control Tests for Human Vaccines and Sera Project”, which was implemented in 2007 with an EU funding totaling 3.500.000 Euro.

f. Legislative Harmonization

We harmonized our legislation with the EU legislation on public health issues such as medical devices, medical products, cosmetics, detergents, toys, communicable diseases, health occupations, blood, tissue and cell, and strengthening laboratory infrastructure. We are continuing to work in other fields.



D. IMPLEMENTATION

7. Multi-Dimensional Health Responsibility

1. Cooperation with the Prime Ministry-Affiliated Housing Development Administration (TOKİ)

We collaborate with the Prime Ministry-affiliated Housing Development Administration (TOKİ). Following the protocol signed between the MoH and TOKİ, we had the TOKİ build new health care facilities. So, we further improved the MoH's capacity of physical infrastructure without placing a burden on the Treasury.

One-third of the construction works, which are already conducted or are still being conducted by this protocol, are paid in cash while the second one-third are financed with estate sales and the last one-third are financed by a deferred payment plan to be paid in installments in 7 years.

Some parts of the estates of appropriation are owned by the MoH and the other parts are owned by the Treasury. Also, nationalization is considered and applied as an option while developing the current lands stock.

Making these efforts with these resources, we bring modern structures to the national health care sector, which comply with the contemporary hospital vision. The new hospitals, which are built with this understanding, have a modern architecture, qualified one or two-bed patient rooms, closed parking spaces and landscaped spaces. Moreover, the health care facilities to be built under this protocol will be smart buildings that allow effective utilization of advanced medical and technological instruments.

Under this protocol we have completed 23 projects with a bed capacity of 4.690 on 915.634 square meters. Construction continues for 69 projects with a bed capacity of 11.951 on 2.089.468 square meters. In addition to that tender process continues for 76 projects with a bed capacity of 10.085 on 1.692.642 square meters and we also plan to implement 68 project with a bed capacity of 11.945 on 1.791.750 square meters.

2. Public-Private Partnership

With the aim of providing people with more effective and qualified health care services, we introduced the Public-Private Partnership model by designing huge investments such as metropolitan hospitals and benefiting from the private sector's capital and experience in service design and management in such big hospitals.

Adopting this model, we will be able to construct the new hospital campuses which are necessary for Turkey.

Why Hospital Campuses?

Hospital campuses are essential to the Turkish health care system....

In order to

Generalize the wide of range of health care services to the whole country,

Complement regional development in health dimension,

Improve the efficiency of health care services in our country,

Improve the quality of health care services, and

Ensure cost-effective health service delivery...

Pertaining to the needs of the population:

In order to;

Achieve to reach the adequate quantity and quality of patient beds,

Provide regions with comprehensive health service delivery with specialized teams,

Apply new technologies in diagnosis and treatment,

Adopt and establish new concepts in curative services such as day-surgery, day-hospital etc...

Pertaining to the needs of patients:

In order to;

Reduced length of stay in hospitals,

Diminish patient transfers and referrals,

Minimize hospital infections,

Maximize patient safety, and

Increase patient satisfaction with health care services.....

Pertaining to the needs of the health care personnel:

In order to;

Increase health care personnel safety and satisfaction,

Improve workforce and service quality,

Maximize the performance of health care services,

We need an approach which solves problems in the field, not on a round table...



This is a model made for a hospital campus.

3. Cooperation with the Council of Higher Education (CHE) and Universities

Health care personnel play an important role in raising the health status of a population and continuing living in good health. For this reason, the quantity and education of health care personnel, together with training facilities and service facilities where health care personnel receive trainings and offer services, are very important, too. Therefore, adequate number of health care personnel should be educated and trained in a way meeting contemporary conditions, requirements and criteria, and a sound workforce planning and a balanced personnel distribution should be managed afterwards.

In this context, the MoH launched a close cooperation and coordination process with the CHE in 2007 and student' quota for higher education in health has been raised since then.

Table 6: A Comparison of the Student's Quotas for Health Education at University:

| Department | Quota in 2006/2007 Education Term | Quota in 2010/2011 Education Term |
|----------------------|--------------------------------------|--------------------------------------|
| Faculty of Medicine | 4.953 | 8.109 |
| Faculty of Dentistry | 1.072 | 1.873 |
| Faculty of Pharmacy | 1.009 | 1.348 |
| Nursing | 4.348 | 7.962 |
| Midwifery | 1.350 | 1.933 |

We jointly prepared the human resources report. We collaborate with universities and we will soon reflect the products of these efforts on education, research and management.

4. Cooperation with the Ministry of Education (MoE)

We implement programs and projects in order to raise awareness for health status of school age children. We make use of a variety of communication instruments such as CDs, brochures, booklets, theaters etc.

We started the Nutrition-Friendly School Project and the School Diabetes Program. We made arrangements for school cafeterias and we are still trying to encourage school cafeterias to offer healthy menus to children. We designed and implemented a program with physical education teachers to prevent obesity and encourage physical activity. On the other hand, we give trainings to teachers, students and families in primary schools by using health nutrition modules developed in the framework of the "Life with Healthy Nutrition and Physical Activity Program".

We implement the "White Flag Project" which indicates the quality of schools in terms of hygiene.

5. Cooperation with the Ministry of Agricultural and Rural Affairs (MoARA)

Recognizing the need for a multidisciplinary fight with and control over zoonotic, vector-borne and parasitery diseases, the MoH works in cooperation with the MoARA.

In this regards, the population of ticks, which are biological vectors responsible for circulation and transmission of the **Crimean-Congo Hemorrhagic Fever Disease**, should be reduced to an acceptable level. With this aim, we have collaborated with the MoARA in the fight with ticks also including but not limited to funding and we provide necessary support to the MoARA. In the fight with **rabies**, we get engaged in joint studies and actions with the MoARA in both central and rural organization levels. We continue our fight with rats in order to control and prevent **Tularemia**. As for **Anthrax**, we gave trainings to veterinaries under the “Identifying the Molecular Epidemiology of the Bacillus Anthracis Infection and the Antibiotic Susceptibility of Isolates in the Anthrax-Hyperendemic Areas in Turkey” project. As for the Avian Influenza, we organized and gave public trainings supported by joint communication strategies and training materials. We performed joint exercises for personnel training. We are still conducting surveillance studies on domesticated poultry.

We collaborate with the MARA in order to prevent food-borne poisoning and other food-borne disease outbreaks, as well.

6. Cooperation with the Ministry of Environment and Forestry (MoEF)

- Protecting water resources by clean water supply
- Preventing or minimizing noise and air pollution
- Inspecting and facilitating operations and management of industrial facilities and all other commercial enterprises for optimum health and peace of people
- Fighting with all harmful agents that can threaten public health such as garbage, wastes, fertilizers and vectors etc.
- Having a strict control over environment polluters to natural resources
- Giving timely and effective environmental health care services in case of disasters

7. Cooperation with the Ministry of Labor and Social Security (MoLSS)

We co-work with the MoLSS on occupational diseases, relevant legislative amendments and technical information infrastructure. Also, we act together with the MoLSS in making legislative amendments for Workplace Medicine in compliance with the macro health policies implemented in Turkey.

8. Cooperation with the Ministry of Defense (MoD)

In the framework of close cooperation with the Turkish Armed Forces, we have launched reproductive health and family planning trainings for male, who perform military services in the army. Beforehand, we gave “training for trainers” to 4.000 military health care personnel and facilitated them to give reproductive health trainings in all troops. So, every year 500.000 young men, who obtain basic information on reproductive health and family planning, go back home after military service. Since April 2004, we have trained more than 3.5 million soldiers this way.

9. Cooperation with the Administration for Disabled People

We co-worked with the Administration for Disabled People and jointly made arrangements for identifying disability criteria, classification and health committee reports to be issued for disabled people.

We have conducted and are still conducting joint studies in disabled people's access to health care facilities and services, home care services etc.

We worked on establishing and managing the data bank for disabled people.

10. Five-Organization Cooperation in Health Financing (Treasury Undersecretariat, MoF, SPO, SSI and MoH)

- Monitoring and Evaluation of Health Spending
- Global Budgeting
- Fixing the Prices Ordered by the Health Implementation Directive
- Determining pharmaceutical prices
- Treasury-funded aids to university hospitals of poor funding
- Preparing the Investment Plan for Health Care Services

11. Cooperation with the World Health Organization (WHO)

The Tallinn Charter states that health care systems are interrelated and therefore a consistent approach, which contains well-coordinated actions on more than one system functions, is required to improve performance, and the experience indicates that a single function or a program alone is less likely to guide to the reaching the results desired.

Health System Performance Assessment (HSPA) allows the WHO to make a comprehensive, systematic and transparent evaluation of the Turkish health care system. Improvements in performance require dealing with various aspects, functions and components of the system with a consistent and an integral approach. The system's performance, as a whole, is something more different and complicated than just adding up individual performance of each of the system functions and/or components. Health system performance assessment, therefore, should go beyond making individual performance assessments for each of the functions and components. It should be carefully monitored and evaluated to what extent the system responds to the ultimate objectives (better health status, better financial protection, further satisfaction etc.) and contributes to these objectives.

HSPA is also important in that it is an analytical process which makes use of complementary informative resources in order to assess the performance. Performance indicators are supported by policy analysis, complementary information (qualitative assessments) and reference points (trends over time; local, regional or international comparisons; or comparisons by standards, objectives or comparators) in interpretation.

The topics of the “Health System Performance Assessment” can be listed as follows:

- Good Health
- Fairness in Financial Contribution
- Healthy Life Styles and Environment
- An Effective Coverage for Health Care Services: Access, Quality and Utilization
- Improving Efficiency in Service Delivery
- Strengthening Primary Health Care Services
- Resource Generation for Information Technology, Health Systems Infrastructure and Resource Generation, Distribution and Sustainability Improvement for Health Human Resources
- Revenue Collection, Universal Health Coverage and Financing Improvement, Enhancing Health System Management and Leadership

12. Cooperation with the UNICEF

In cooperation with the UNICEF, we have been implementing two programs which are “Encouraging Breastfeeding and Baby-Friendly Health Care Facilities” and “Preventing Iodine-Deficiency Diseases and Salt Iodizing Program”.

“Encouraging Breastfeeding and Baby-Friendly Health Care Facilities”:

We encourage mothers for breastfeeding with “Maternal Support” groups and “Mother to Mother” groups, which have been recently established in Turkey for the first time. We select mothers among all others, who visit primary health care facilities and are capable of sharing their knowledge and experience with other mothers, or mothers, who can act as community leaders in this field, and assign them as facilitating mothers after they are trained by health care personnel. Also, we give mother supporting trainings to many NGOs and facilitate them to convey the MoH’s message to the entire population to encourage breastfeeding and raise awareness among mothers in all related subjects.

“Preventing Iodine-Deficiency Diseases and Salt Iodizing Program”:

The most devastating effects of iodine deficiency are observed in the following risk groups: fertility-age women, pregnant women, infants and children. The most common devastating effects can be listed as growth retardation, difference in intelligence among peers (minimum 13.5 point difference), diminished cognitive ability and school achievement, increased risk of abortion and still birth among pregnant women, and goiter/thyroid disease in all ages and both sexes.

We are continuing information campaigns in order to eliminate this severe problem and encourage 100 % of the population to consume iodized salt.

13. Cooperation with the OECD

We work in close cooperation with the OECD. The OECD reviewed the major reform actions taken since 2003 within the framework of the Health Transformation Program implemented in Turkey and published the “OECD Health System Reviews: Turkey” book - an assessment report.

14. Media and Public Relations

A New Communication Approach and Communication Coordination Unit

Adopting a new approach, the Health Transformation re-built and adapted public relations to the contemporary norms while re-organizing the health care system in a modern way with minimized bureaucracy. This renewed, accelerated and extended system needed a new way of communication and PR, as well. In order to respond to this necessity, we replaced the traditional working methods of the MoH's Press Counseling Office with those of the newly established Communication Coordination Unit and considered communication as a whole. So, we regarded all health care employees in 81 provinces (including rural and deprived areas) across the country; national and local media personnel; all public and private facilities and all people, who became the focus of service delivery under the Health Transformation Program, as inseparable components of the system and we planned our activities based on this principle.

7/24 Active and Accessible Communication for Health

Abandoning traditional methods of public relations and communication, we built the Communication Coordination Unit and shaped its activities on the basis of “**equity, transparency, speediness and effectiveness**”. Recognizing that health is a vitally important matter, we considered that hiding truths from people would not only harm personal values but also professional norms and ethics. We established a new, clear and friendly language for public and media. We used media as an effective education tool for people by adopting transparent and productive communication strategies and we created an environment of mutual trust in order to benefit from media for preventive health care services in the future.

A Healthy Communication with All Stakeholders in Health

We replaced unilateral communication with multilateral communication. We transformed the heavily bureaucratic, plodding and static structure into a fresh, friendly and dynamic one. We left the older and conservative approach, which merely followed the agenda, and we adopted a new and dynamic approach, which supports getting involved, taking initiative, informing-feed backing, monitoring and evaluating.

A Working Office for Health Reporters in Our Coordination Unit

We attached utmost importance to co-work with all parties within the media. We launched new activities for new phenomena which have recently emerged from new communication technologies. We made new arrangements in order to provide more comfortable work settings for media actors. We allocated a special working office equipped with a telephone, television and computer for health reports in the Coordination Unit. Regardless of official work hours, we responded to any kind of requests of the media for information, new, documents, visitors etc. Today, the MoH's relations and communication with the media are based on this friendly, equitable, transparent and effective approach which reflects our consciousness about the media and public confidence and respect to us.

Getting and Giving Information

The MoH Communication Coordination Office produces and offers 7/24 services with its competent communication assistants. The basic work principle of us could be best defined as "Getting and Giving Information".

We re-designed our system based on this principle. We completely renewed our technological infrastructure. We started 7/24 newspaper, web site and television follow ups and evaluated all news in health simultaneously.

We supported, witnessed and shared with public all steps taken to reflect the activities under the Health Transformation Program.

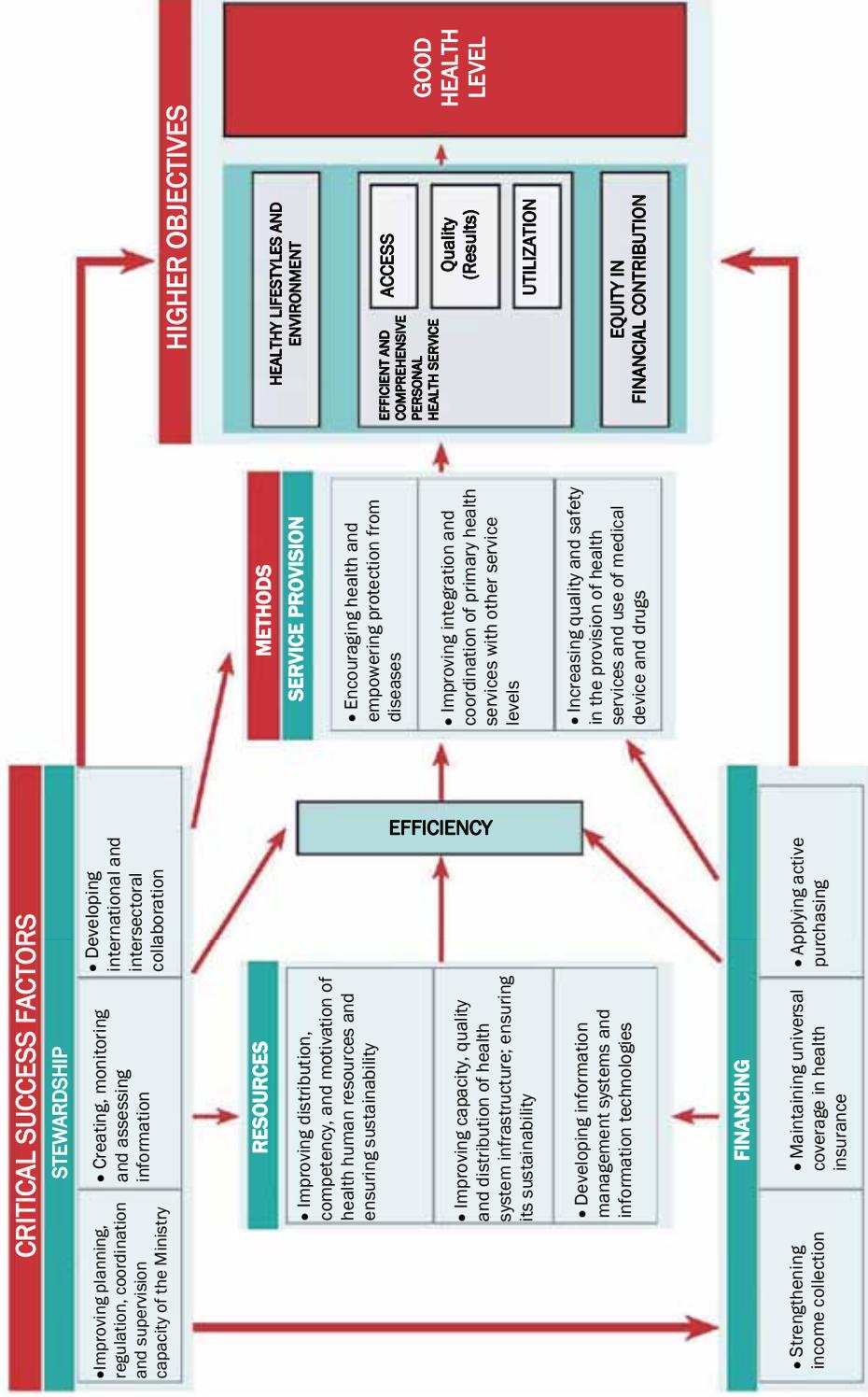
Health advocacy means advocating social policies that support health and collecting scientific information, sharing it with the media and public and raising both public and academic awareness for health is essential to achieve this. From this perspective, we took even bad news about health status, health sector and health service delivery as an opportunity to detect and remove defects within the system.



D. IMPLEMENTATION

8. Strategic Management, Performance and Quality in Health care

Turkish Health System Strategic Map



1. Strategic Management in Health Care

Strategic management could be defined as identifying objectives and targets of an organization and managing the whole organization. Strategic management is not planning the management just for once but an organization's renewing its objectives and targets in parallel to the changing and evolving world.

Strategic management is comprised of two basic stages: "strategic planning" and "strategic control". Strategic planning could be defined as putting the strategies of implementation into a formula while strategic control could be defined as the whole entity system which is essential to implement strategies properly and reach the results targeted. The components of strategic management could be categorized under strategic planning (mission, vision, targets and activity plan) and strategic control (implementation, measurement and evaluation).

Regarding strategic management, first we developed the MoH Strategic Plan 2010-2014 in consistency with the senior policy papers and the MoH strategy. Later, we prepared yearly performance programs including performance targets, indicators and activities relevant to the implementation of the plan. Based on the strategic map, which was previously developed in scope of the Turkey Health System Performance Assessment, we prepared the MoH Strategic Map and identified objectives and indicators.

Strategic Map:

While establishing an association between the strategic map and strategic plan, we developed the strategic map based on critical success factors, methods and ultimate goals. We handled the functions of stewardship, resources and financing as the critical success factors and we handled the function of service delivery in the context of methods. We associated the critical success factors and methods with the objectives-oriented strategies.

In the context of the ultimate goals, we dealt with life styles and environment, effective and comprehensive health care services, fairness in financial contribution and good health level. While linking the ultimate goals with the strategic plan, we also linked the interim goals / sub-goals with the ultimate goals and ultimate outcomes.

Stewardship

The MoH acts as the superior authority which undertook the stewardship function for protecting and promoting population health. In this scope, the MoH is authorized to establish necessary rules, develop plans, make supervision, and manage monitoring-evaluation and guiding.

In addition to these primary tasks and responsibilities, the stewardship function of the MoH is complemented by also some other components such as strengthening the health sector, raising the awareness of other sectors for health responsibilities, enabling coordination among sectors, amending laws and regulations according to health needs and technologies, and using health care management information systems and decision support systems.

Sources

The implied physical infrastructure basically consists of developing infrastructure such as the buildings, hardware, supplies etc, which are necessary for reaching the target level of health care service delivery, making it sufficient in terms of quality and quantity, and ensuring responsiveness by enabling people have access to the health care services they need.

In parallel with the scientific and technological developments, it is necessary to ensure that the human pharmaceutical products and medical devices are sufficient countrywide and distributed in a balanced manner. Rendering this technical potential safe and easily-accessible makes a significant contribution to the qualified health care service delivery.

In order to protect public health and ensure that the people in need can receive qualified health care services, ensuring that there is sufficient trained healthcare personnel that will work throughout the country and ensuring a balanced distribution have a significant place in health policies. The motivation of the existing health professionals and encouraging the professionals in this field are important elements of achieving sustainability.

Increasing speed, convenience and credibility by using information technologies in health care service processes, establishing national and international comparable data standards, ensuring rational source use and secure data flow, building secure data pools for service delivery and service receivers, and developing prospective decision making system for policy makers gain importance with increasing momentum.

Financing

The system financing covers an area where revenues are collected, consolidated in fund pools, distributed among service providers within the active procurement process for the delivery of necessary services and thus used in investments to provide resources.

It is necessary to develop health financing resources, to consolidate and manage them efficiently in a common data pool, to ensure the delivery of accessible, qualified and satisfactory health care services and maintain its financial sustainability.

Efficiency

Efficiency is the reduction of costs by using the resources properly and thus generating more services with the same resources. The main elements of the target-oriented use of available resources are obeying the principles of efficiency without making concessions during the infrastructure investments, human resources distribution, material management, rational drug use, health management, and preventive medicine implementations; and ensuring that all health-related resources of our country are included in the system and integrated.

Service delivery

It is important to develop behaviors towards a healthier life in the process of almost all kinds of relations in every point of life. The important steps towards this are raising awareness in public in a way that will develop health life behaviors (such as protection from tobacco, alcohol addiction, healthy diet, physical activity habit), increasing the level of information, taking responsibility of your own health, and ensuring individuals' participation into decision making processes.

The essential responsibility areas of public health are reducing risks through preventive health care services (such as immunization, screening programs) for improving the health status of the society, preventing the emergence of diseases, executing public health services in a widespread manner, preventing the progress of diseases and ensuring the collaborations of the relevant sectors in those fields.

Moving from the fact that health is formed in the family environment, family medicine implementation has been introduced to address the individual within the framework of the concept of "family health", ensure its ownership and constant monitoring in terms of health and make the primary care services the coordinators of the health care service delivery. In this way primary care services are strengthened and made attractive both for the service providers and service receivers.

The priority responsibility area is ensuring of effective and qualified delivery of health care services in their diagnosis, treatment and rehabilitation process by focusing on evidence-based medicine practices, scientific data, patient and worker safety, by using proper technology and by protecting patient rights.

In the processes from the manufacturing of pharmaceuticals and medical supplies to their consumption, it is necessary to set standards, prioritize quality, develop cost-effective supply methods and provide the necessary infrastructure for ensuring financial protection while reaching those products.

Healthy Life Styles and Environment

Many factors outside health including our preferences, habits and our living environments affect health lifestyle.

The underlying objectives of accessing a healthy life style are ensuring health care services that protect public health, raising awareness in individuals and providing them with the knowledge that will enable them to make the right decisions on their health, improving the factors and social determinants that affect health directly and indirectly and adopt a lifestyle that will ensure the continuance of the mental, physical and social well-being. All factors that can affect the course of life have the potential to make positive/negative contributions to this access. Therefore, it is necessary to raise awareness in sectors other than health sector and mobilize multi-sector health responsibility.

Effective and Comprehensive Personal Health Services

Ensuring individuals' access to all kinds of health care services aiming at a healthy life style is a priority function of the health system. Starting from the moment when the need for health care services arises, it is necessary to remove all kinds of obstacles (such as the bureaucratic and financial obstacles in front of access to necessary services, regional differences, insufficiency or imbalance of service supply, inclusion in a disadvantaged group) when necessary and ensure timely and equitable access to all necessary services according to the needs.

Equity in Financial Contribution /Protection from Financial Risk

Ensuring that the people who need health care service can benefit from those services as per their needs and that they contribute to the financing of those services as per their means is a requirement of equity.

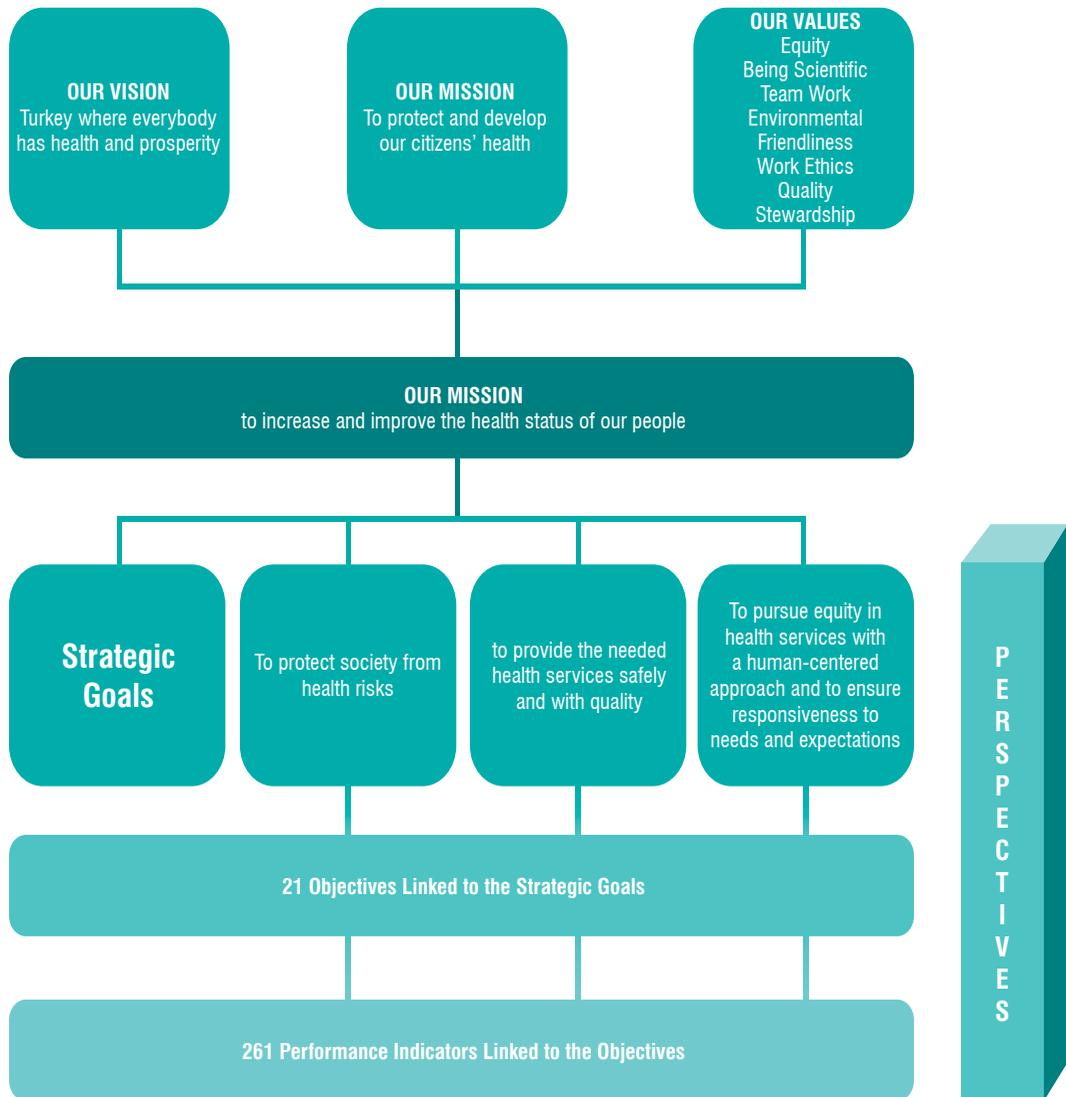
It is necessary to eliminate the discrepancies between different social groups, rural and urban areas and different geographical regions in terms of benefiting from health care services and ensure overall improvement in health indicators. Among the prominent targets of the social systems are including all citizens within the social security coverage, decreasing the share of out-of-pocket household expenditure in total health expenditure, and eliminating the impoverishing effects of the out-of-pocket expenditures over the households.

Good Health Level

The ultimate goal of the health policies to be implemented is to increase the health status and thus the welfare and happiness status of the individual within the society. While pursuing this goal the priority principle is to prevent people from getting ill and meet their expectations for a healthy life. Attaining this goal will be indicated by the progress made in the basic health indicators. Decreasing maternal and child mortality and increasing life expectancy at birth will be the most concrete indicators for this.

When the systems focus on meeting the expectations of the service providers or service financers and when the adjustments develop in this way, the expectations of the service receivers, who are the reason of state of all those services, cannot sufficiently be met. During the delivery of health care services, system's ability to meet the health care needs of the service receivers and also meet their non-health expectations is an important factor that ensures the service receivers' satisfaction and indicates the system's success.

The important cornerstones of a human centered/anthropocentric system are responding in a timely and effective manners starting from the moment when the need for health care services emerges, arranging the health facilities ergonomically for the service receivers and providers, rolling out the facilitating life spaces for the disadvantaged groups, protecting personnel privacy, giving the right to choose service provider, ensuring their participation in the decision processes about their own health and ensuring dignity, effective communication and access to social support networks during treatment.



We have established the “Balanced Scorecard System” and “Score Performance Assessment System” in order to be able to measure the defined 261 indicators in the most accurate manner.

Score Performance Assessment System

With the Score Performance Assessment System, we ensure the communication of the strategic objective and performance indicators within the organization in a rapid and easy manner. We have provided the senior management with the means to follow the impacts related to Unit performance by getting into the details of the Strategic Objectives included in the Strategic Map. We have provided the employees with a link to a common system where they can monitor all stages related to their units and themselves as of the beginning of the implementation process.

We have defined the strategic objective of the MoH on the basis of four perspectives, which are Stewardship, Service Delivery, Resource and Financing, and three sub-perspective for each of those main perspectives in order to ensure progress in line with MoH's vision, mission and values; we have defined 261 key performance indicators under those objectives in order to measure whether the defined 21 strategic objectives are achieved and we have reduced those indicators to the unit level in order to be able to follow those indicators according to units. We can follow the success level of the each strategic objective by identifying each indicator's impact on the objective and the higher indicator.

We can follow all our units on the basis of their performance scorecards. With the help of the performance scorecards of a unit; we can monitor the indicators of the relevant unit, the formulas of those indicators, measurement frequencies, the target values and actual values, success percentages and colors, periodical performance trends and, the successes of sub-indicators if any. We can follow the sources of the successes and failures of the indicators of an objective on the basis of any objective in the Strategic Map as far as the bottom unit, position or person defined in the system.

We have determined the actions necessary for achieving the objectives and for providing both the senior management and employees with easy access to the information on the factors affecting the achievement of the objectives. We use the actions in order to act before the end of the period in case of failures and prevent any performance decline that might be realized at the end of the period by realizing it in the interim period. We can define the activities and resources, which are necessary for the successful completion of the performance period by the indicator within the framework of this setup, in real-time with scorecards.

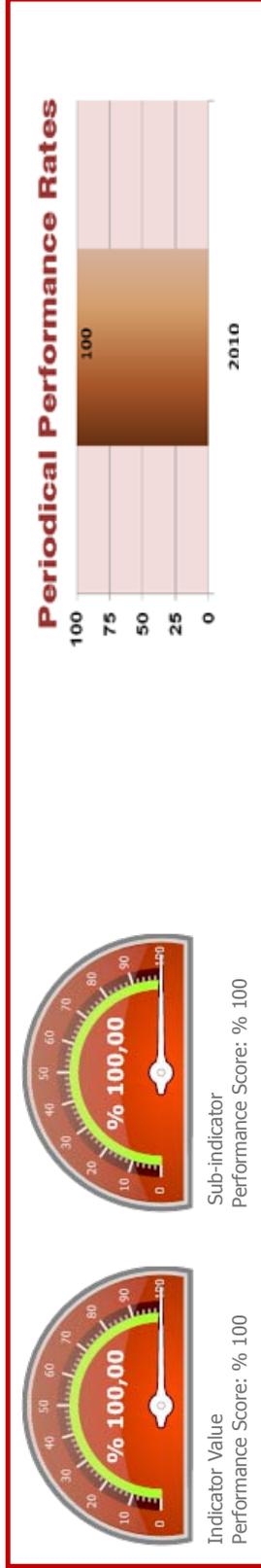
We enable the senior management follow the performance of the institution with the Score Performance Assessment System and the success level of the strategic objectives through reports in real-time.

An example of the Performance Assessment Made with the Balanced Scorecard System:



Ministry of Health – Strategic Map

Service Delivery 2 - To continue developing emergency health care service and disaster health management for emergencies, disasters and threats, and to keep them ready for timely, effective and efficient response



| Key Performance Indicator | Objective | Existing | Success | Responsible | Success Level | Period | Detail |
|--|-----------|----------|---------|--|---------------|--------|------------------------|
| Ratio of deploying emergency calls in the first 10 minutes in city centers | 93 % | 95 % | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| Ratio of deploying emergency calls in the first 30 minutes in rural areas | 96 % | 96 % | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| Number of fully-equipped ambulances | 2400 | 2547 | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| Number of ambulance planes | 2 | 2 | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| Number of ambulances with snow pallets | 114 | 132 | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| Number of sea ambulances | 4 | 4 | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| National health disaster plan | Yes | Yes | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| Mobile Emergency Health Response Unit | 36 | 38 | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| Ratio of population with certified first aid information and skills (per thousand) | 0,24 % | 0,27 % | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |
| Number of ambulance helicopters | 17 | 18 | 100 % | General Directorate of Primary Health Care | ● | ↑ | Detail |

By supporting MoH's Strategic Management principles with the Score Performance Assessment System;

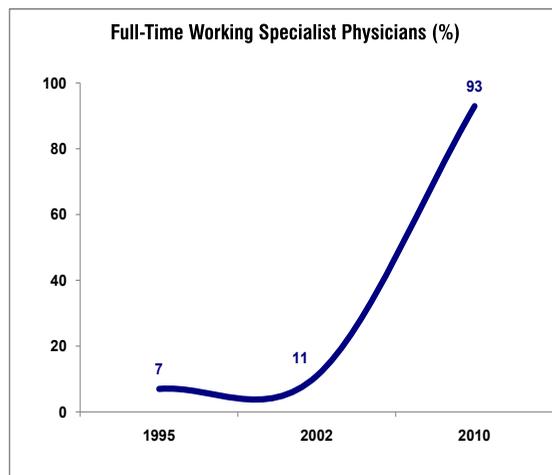
- We support the communication of MoH strategies by reducing them down to the units' level on the basis of key performance indicators. In this way, we make sure that the whole MoH acts by embracing the same objectives and goals.
- We ensure transition to the strategic performance assessment structure, which is a systematized and fair assessment method, instead of the traditional performance assessment techniques.
- We ensure that the strategies of the MoH are linked to the budget.
- We make sure that the units assess their own performance first, since the units have the chance to follow their own performances in a systematized manner by using their own performance criteria or to intervene in case of a deficiency or inaccuracy.
- We establish a common language within the institution in Strategic Management.
- We ensure the continuity of our development and progress by observing the points open for development, measurements results and the actions instantly.

2. Performance-Based Supplementary Payment

Before the Health Transformation Program, hospital personnel received very limited financial benefit from the hospital revenues raised by the services which they produced at hospitals. Since no systematic approach did exist in the past, which directly associated additional payment with performance and service production as it is today, service efficiency, registration or reimbursement did not mean more than an isolated problem for only few managers, and registration did not become a formal and regular procedure as necessary. To brief the payment method used in the past, supplementary payment was capped with maximum two-times of the basic salary and health care personnel did not even reach the cap in most of the time. In 2002, the supplementary payment cap for specialist physicians was 861 TL in 2010 figures and it was 265 TL for other health care personnel in 2010 figures again. However, the caps range between 150 % and 800 % of basic salaries depending on occupations and working conditions today. In 2010, supplementary payment was reported 4.541 TL in average for specialist physicians 643 TL for other health care personnel. Making measurable service descriptions is a must in order to motivate health care personnel, improve efficiency and quality in service production and supply. Performance management puts emphasis on various performance criteria to achieve it. These criteria do include but are not limited to the following: satisfying patients, reaching a better health status, conforming to a well-defined and qualified health service delivery process and meeting the norms described for infrastructure, human resources capacity and materials-equipment.

In the very beginning of the process, the Health Transformation Program declared that performance indicators would be identified and performance-based payment systems would be introduced in Turkey, which was followed by many new implementations and initiatives later. Firstly, we associated work with income and established a system in which time and potential could be exploited more effectively because it is more equitable if service providers get a share of revenues in proportion to their involvement in and contribution to service production. In addition to this principle, we have witnessed in the process that such additional income facilitates more efficient use of time and potential, as well. Since the beginning of its implementation, the Health Transformation Program has given significant benefits to our health care system. Thanks to the Health Transformation Program, hospitals services in Turkey have become measurable firstly and the measurable hospital services have been evaluated and reflected on service-producing personnel secondly. In training and research hospitals on the other hand, not only services that are directly provided for patients but also scientific trainings given to medical residents and scientific researches/studies and publishing are accepted as the performance criteria, which encourages and awards medical residency training and scientific studies in training and research hospitals, as well.

The most outstanding features of the system are the awards given to primary health care facilities by their locations (if they are located in deprived areas) and the performance criteria applied to preventive medicine services. As a result of the performance-based supplementary payment system, working hours have been voluntarily extended in most hospitals and operation theaters have become available for surgical operations for longer hours. Most specialist physicians closed down their private offices and preferred full-time



Graph 54

practice at hospital, which has helped to alleviate the workload of hospitals that has been raised due to the increased demand for better services. While 11 % of specialist physicians worked on full-time basis in public hospitals in 2003, the percentage is reported 93 % today. So, the efficiency of physicians, who are already in undersupply in Turkey, has increased in public hospitals.

- We implement the performance-based supplementary payment, which refers to a bonus paid in return for the well-quality services produced in health care facilities, as an instrument that improves service supply and efficiency.
- It has proved to be a significant instrument which increased motivation in responding to service demand.
- It is mainly subsidized by preventing leakages within the system, providing equipment at lower costs and diminishing waste.
- It has contributed to a routine registration system. While only 20 % of the hospitals had automation systems in the past, today 100 % of the hospitals have automation systems.

- Waiting lists have been outstandingly shortened.
- Examination time allocate for patients has been extended.
- Number of referrals to upper levels of health care has been normalized.
- Monitoring income-expenditure balances of health care facilities has been attached further attention.
- Our fight against “informal payments to health service providers” has become easier.

a. Diagnosis-Related Groups (DRG)

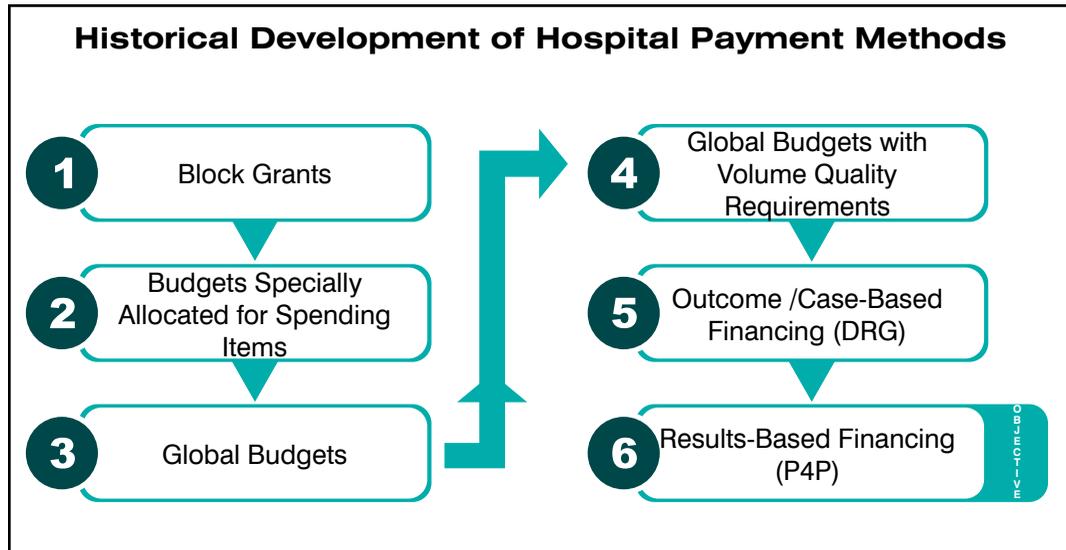
Most reimbursement systems in health are designed by the classification approach. Health Implementation Directive (HID), ICD 10 (International Classification of Diseases version 10) and even CPT (Current Procedural Terminology) can be given as examples. These classifications can be based on anatomy, variety of invasive procedures or pathological findings or a mixture. As for the Diagnosis-Related Groups (DRG) however, not merely classification was used but a classification logic, which focused on data, was adopted. Every single patient is unique with his or her risk factors, family status and socio-cultural texture. Classification - the most important pillar of DRG-emerges from the need for making comparable groups among patients of such big variations and defining an acceptable level of variety. The classification is primarily based on diagnosis and additional diagnostic tests etc. and also takes into consideration medical procedures, which ensures homogeneity in groups.

DRGs, which are already under implementation in most developed countries for years, were developed for the first time and put into use in Turkey in November 2009 as a result of the immense efforts that were launched by a joint research project conducted between the MoH, MoF and MoLSS in 2005. Being one of the stakeholders in this DRG development project, the MoH founded the Diagnosis-Related Groups Branch.

The most fundamental components of the DRG system are physicians, who generate medical data in patient files, and clinical encoders, who are expected to convert data to codes. Clinical coding is made by special software available in every hospital which connects to the MoH servers on the Internet.

In this context, the software infrastructure was empowered to facilitate the conversion of medical data to clinical codes and necessary trainings were held to train proper clinical encoders.

In December 2010, the DRG was piloted in the MoH hospitals. We aim to roll out the system to all hospitals also including university and private hospitals in the soonest time possible, and we are giving technical support to university and private hospitals for this infrastructure.



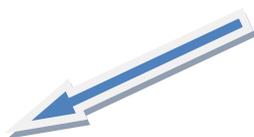
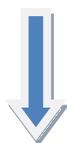
Robert Dredge, Senior Financial Management Expert, Keele University (England)

DRGs, which are produced in this system, contribute to our national health care network by serving as instruments for the following:

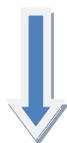
- Financing and global budgeting,
- Intramural management at hospitals,
- Achieving the goal of quality and utilization measurement,
- Making clinical and financial decisions at hospitals,
- Improving physician-patient relations and making comparison among physicians,
- Assessing performance of hospitals and comparing hospitals,
- Comparing hospitals with regards to the quality of care,
- Developing data set in support of producing clinical guidelines and protocols,
- Observing diversities in inpatients and outpatients and identifying regional distribution on a national basis,
- Conducting studies such as clinical activities measurement,
- Giving significant tips for macro and micro health policies formulation,
- Producing and presenting a clear and easily understandable table to all policy-makers indicating how to distribute the health-allocated resources by disease groups.

- **Flow and Regulation of Hospital-Generated Data within the System**

Data are sent from hospitals by clinical encoders. Data content and data transfer method/format are identified after clinical encoders review print or electronic data files. Coding is a special job requiring training and competence and only persons, who have been trained in coding, are assigned as encoders.



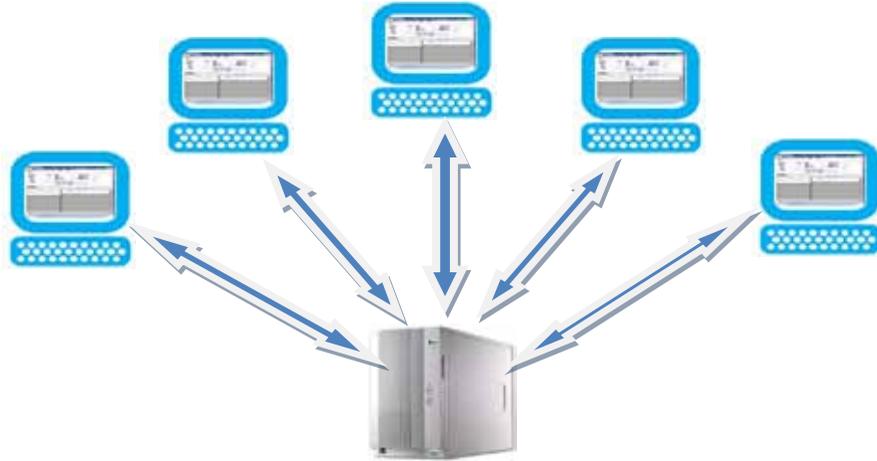
Patient data are generated in hard copy or soft copy. No matter in what format data flow to the encoding personnel, the encoders personnel has the authority and competence to assess the data.



Clinical encoders have to attend to minimum one-week training beforehand.

Clinical encoders use the DRG Data Entry Program in order to send data to the MoH servers.

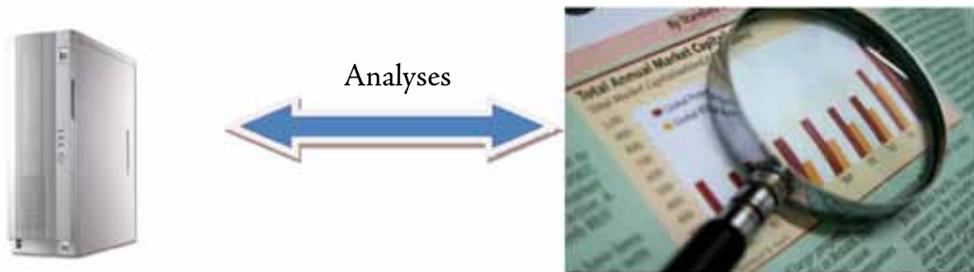
The software used contains many filters; the program checks a number of criteria such as age and diagnostic conflicts, and procedure/diagnosis-sex conflicts etc. and minimizes errors.



Data flowing from each hospital are collected and archived in the MoH servers individually. The Categorization software of the server aligns every individual patient datum with a proper DRG and keeps records categorizing all data by hospitals. Later, the systems displays the DRG produced and confirms data transfer is successfully completed to the clinical encoder and so the cycle moves forward.

Hospitals can use the web interfaces to follow up the DRGs that they produce. Besides, the DRG Data Entry Program allows revisions. When necessary, records of certain time intervals, DRGs or patients can be recalled in the server, revised and re-entered into the system.

What remains to be done is to examine the necessary data, raise data quality and make disbursement calculations and simulations. Feedback is essential to concluding the process successfully.



Analyses are made by the central analysis team and published on www.tig.saglik.gov.tr periodically. The knowledge and experience, which are essential to further detailed analyses, are being accumulated day by day.

b. Manager's Department Performance

We developed a financial sustainability-based model and put into use in March 2010 in order to measure the performance of health in the MoH-affiliated health care facilities including head physicians, deputy head physicians, hospital managers, deputy hospital managers and head nurses. In addition to financial indicators, we also identified some new administrative priorities that managers should consider while performing their tasks. Therefore, the Manager's Department Performance is evaluated in two parts. The first part could be considered as the primary factor and the second part contains the correction factor which is used to remove discrepancies among hospitals and managers.

- Parameters of the Fundamental Factor:
 - Regularly paying bonuses to personnel in order to secure the institutional dynamism and offer better services,
 - Establishing and protecting a structure compatible with the internationally accepted quality standards-compatible,
 - Criteria indicating the performance objectives identified by the MoH.
- Some parameters constituting the adjustment factor:
 - Development level of hospital location,
 - Age of hospital,
 - Hospital financial ratios (endorsement).

In our model, calculations are made on monthly basis, every manager's performance coefficient is identified, the coefficients identified are associated with managers' payments and reflected on supplementary payments to be given in that month.

To brief, a systematic evaluation model was designed by considering service quality, sustainable borrowing plan, sustainability of making timely supplementary payments, availability to reach the previously identified performance objectives and all other parameters in integrity. These indicators also laid out the priorities of managers. This evaluation system, which is the first example in Turkey, will contribute to more effective and positive outcomes. The OECD states in its report 2008 also other countries can take so many lessons from the Turkish experience.

3. Quality and Accreditation

One of the primary objectives of the Health Transformation Program is to ensure continuous quality improvement in health care services in Turkey. With this aim, we developed and introduced a performance-based supplementary payment system which is unique to Turkey. As the second stage, we carried out the Institutional Performance and Quality Development study. So, we put into effect a much more comprehensive system for hospital evaluation which is based on health service access, service infrastructure, process assessment, patient satisfaction measurement and analysis of targeted performance.

Quality criteria serve as the main parameter of the Performance and Quality Improvement study. We developed these criteria on the basis of international practices, needs and the MoH strategy. We revised the quality criteria list, which consisted of 100 items initially, added up 50 more items to the list and re-prepared as list of 150 items in 2007. Making another revision to the list in 2008, we re-arranged these criteria with regards to structure, design and methodology. We made up a new Service Quality Standards Set which consisted of 354 standards and 900 sub-components. In 2009, we developed and declared the “Service Quality Standards for Private Hospitals” which contains 388 standards and about 1.450 sub-components.

When developing the Service Quality Standards, we held talks with analysts, hospital quality directors and many specialists from other health-related fields, and asked for their views and recommendations. Also, we carefully considered different institutional structures, problems and country-specific conditions in the light of the national and international references.

The guidelines, which we published together with the Quality Standards, serve not only as facilitators for health service providers but also as schedules helping for on-site assessment of the implementations.

In addition, we see that the efforts made to raise the quality of health care services worldwide are rather based on national quality and accreditation systems when we consider examples from various countries on the world. The needs, priorities and expectations of national health care systems and financial burden originating from the international accreditation systems obliged many countries to establish a national quality system. The United Kingdom, Canada, France and Denmark are the leading countries having established national quality systems in health.

While establishing a national quality system in health in Turkey, public and private hospitals were first evaluated by two different sets of standards. However, we developed the “Hospital Quality Standards” later in order to approximate service standards of hospitals regardless of their types (public, private or university), to pave the way for exchange of experience among facilities and to well establish a national quality system in health.

Hospital Service Quality Standards

We targeted to follow a scientific method while developing the standards included in the “Hospital Service Quality Standard”. In this framework, we paid attention to the following objectives and principles:

1. Assessing the standards, associating them with each other and developing a sizing structure within an organization,
2. Developing and designing the standards according to this sizing structure,
3. Carrying out validity and reliability studies of the established standards,
4. Developing a specific coding system to monitor and analyze the standards,
5. Following a specific rule and strategy to rate the standards,
6. Developing an index of descriptions,
7. Developing informative tables.

1. Development of Sizing Structure:

In sizing, we located the standards on a model having 5 vertical and horizontal dimensions and designed the model to cover all aspects of a facility. Institutional Service Management, Health Care Services Management, Support Services Management and Indicator Management were located in the vertical dimension while the Patient and Personnel Safety was located in the horizontal dimension. So, we developed a sizing structure specifically for country.



2. Developing Standards:

While developing the standards, we reviewed national and international resources including the Service Quality Standards of public and private hospitals; and considered four strategic objectives by respecting the country's needs and conditions. In addition, we received the feedback, views and recommendations of field observers, hospital quality directors and a variety of specialists; and gathering them all with our in-depth experience we piloted the standards. In terms of quality, we paid strict attention to approaching the issue with a conceptual perspective that minimizes wasting and maximizes cost-effectiveness, efficiency and satisfaction.

3. Validity and Reliability of Standards:

In order to assess the applicability and understandability of the standards at hospitals, we piloted the standards at 24 hospitals of different types in different sectors in different provinces.

4. Developing a Coding System:

We developed a coding system and aligned the standards accordingly with the aim of establishing a statistical record system and ensuring follow-up of the standards in measuring to what extent these standards are met at hospitals. So, the codes that we associated with the standards will also allow data processing and comparisons among hospitals. Besides, coding will also give some practical information to users about the dimensions of the vertical and horizontal standards.

5. Developing a Scoring System:

We developed a system to score the standards. Accordingly, the standards are scored by certain rules and a certain strategy; they are compared to each other and scored by a certain categorization. An integral, a well-balanced and a weighted design is essential to this scoring system.

6. Developing an Index of Descriptions:

As for the implementation and evaluation of the standards, we developed an index of descriptions in order to establish a common language between implementing and evaluating parties.

7. Developing Information Tables:

While implementing the standards, we identified the standards which are not valid for a facility due to institutional characteristics and/or application. We do not score these standards in the evaluation process.

Result

We used a scientific methodology while setting these standards. This study is regarded as an innovation since it paved the way for developing a standard set including sizing, standard development, validity and reliability, coding, scoring, description and information tables. The set is quite better than it was in the past with regards to effectiveness and quality. The standard set contains total 295 standards and 1.058 evaluation criteria, and 480 standards and 1.640 evaluation criteria are used in hospital evaluation.

In the Turkish health care system, we have made very immense efforts resulting in an impressive progress so far in order to establish a national health care system which aims to promote population health and to offer the same quality services for all service providers by improving service quality; supervises and rates all health care facilities by using the same standards; targets continuous improvement; and respects employee safety and satisfaction as much as patient safety and satisfaction under the guidance and stewardship of a superior authority. "Hospital Service Quality Standards" are in the heart of this process which is designed by a scientific and proper methodology and these standards raises acceptability within the system. "Hospital Service Quality Standards" will continue to contribute to the national health care system.

National Quality System, which we have established as a result of the afore-mentioned studies and efforts, is eligible for improvement and scientific studies, technological developments, feedback, experience and country needs will continue to be the factors that support and enrich our strong commitment and immense efforts in the future, as well.

Sample Standards:

| STANDARDS |
|--|
| INSTITUTIONAL SERVICE MANAGEMENT |
| MANAGEMENT SERVICES |
| A quality management unit should exist. |
| A quality management director should be elected. |
| The quality management unit to be established should have a specially designed work office. |
| The quality management unit should perform the following services; |
| o Coordinating HQS-specific processes and procedures, |
| o Evaluating results of analysis made by the department for department objectives, |
| o Managing self assessments, |
| o Evaluating patient and employee questionnaire outcomes, |
| o Within HQS framework; |
| Reviewing written implementing regulations |
| Monitoring the revision of written implementing regulations, |
| o Evaluating statistical information on service delivery, and |
| o Attending the committees defined within HQS as a member. |
| A Patient Safety Committee should exist. |
| In the Patient Safety Committee; |
| o One representative from each of medical, administrative and nursing management units, a quality management director, a surgical branch specialist, an internal medicine specialist, a laboratory branch specialist, an anesthesiology and a reanimation specialist, a hospital information system officer and a pharmacist should have a seat. |
| Tasks and responsibilities of the Committee include but are not limited to the following: |
| o Identifying patients properly, |
| o Creating an effective working atmosphere among employees, |
| o Managing pharmaceuticals safely, |
| o Managing transfusion safely, |
| o Ensuring radiation safety, |
| o Minimizing risks due to falls, |
| o Ensuring safety of surgical procedures, |
| o Ensuring safety of medical devices. |
| Corrective-preventive actions should be taken if necessary. |
| The Committee should convene regularly. |
| Trainings should be given to employees. |

| STANDARDS |
|---|
| An employee safety committee should be established. |
| In the Employee Safety Committee; |
| o One representative from medical, administrative and nursing services each, a quality management director, a physician, an infection nurse, a security manager, a psychiatrist or a psychologist or a social service specialist and one representative from other professional groups (lab technician, anesthesia technician and radiology technician) should have a seat. |
| Tasks and responsibilities of the Committee include but are not limited to the following: |
| o Minimizing the risks of employees, |
| o Taking necessary measures for risky works, |
| o Minimizing the risk of physical and psychological violence, |
| o Minimizing the risk of sharp object injuries, |
| o Minimizing the risk of infection due to blood and body fluids, |
| o Optimizing health checks. |
| Corrective-preventive actions should be taken if necessary. |
| The Committee should convene regularly. |
| Trainings should be given to employees. |
| Training programs should be developed for hand hygiene. |
| Minimum one training should be given to employees in a year. |
| o Trainings should be specific to professional groups. |
| Hand hygiene training; |
| o Significance of hand hygiene, |
| o Indications of hand hygiene, |
| o Methods to have hand hygiene, |
| o Rules of glove wearing, |
| o Overall information on hand antiseptics, |
| o Safety measures to be taken alcohol-based hand antiseptics. |
| Warning messages about hand hygiene should be sent to employees via hospital information systems. |
| Necessary materials should be available for hand hygiene. |
| Alcohol-based hand antiseptics should be available at places where health service is delivered. |
| Alcohol-based hand antiseptics should be available in every room. |
| Routine checks should be made to see how employees obey the rules of hand hygiene. |
| Requests for hand antiseptics supply should be periodically monitored for each unit in every three months. |
| o Necessary improvements should be made in units if unsatisfactory use of hand antiseptics is reported. |
| Informed observation should be made on employees by using the “5 Indication Rule Observation Form”. |
| o Observations should be made periodically in every three months, |
| o Observations should be made minimum in intensive care units and clinics, |
| o Observations should cover all health employees in ICUs and minimum 10 % of employees in clinics.. |



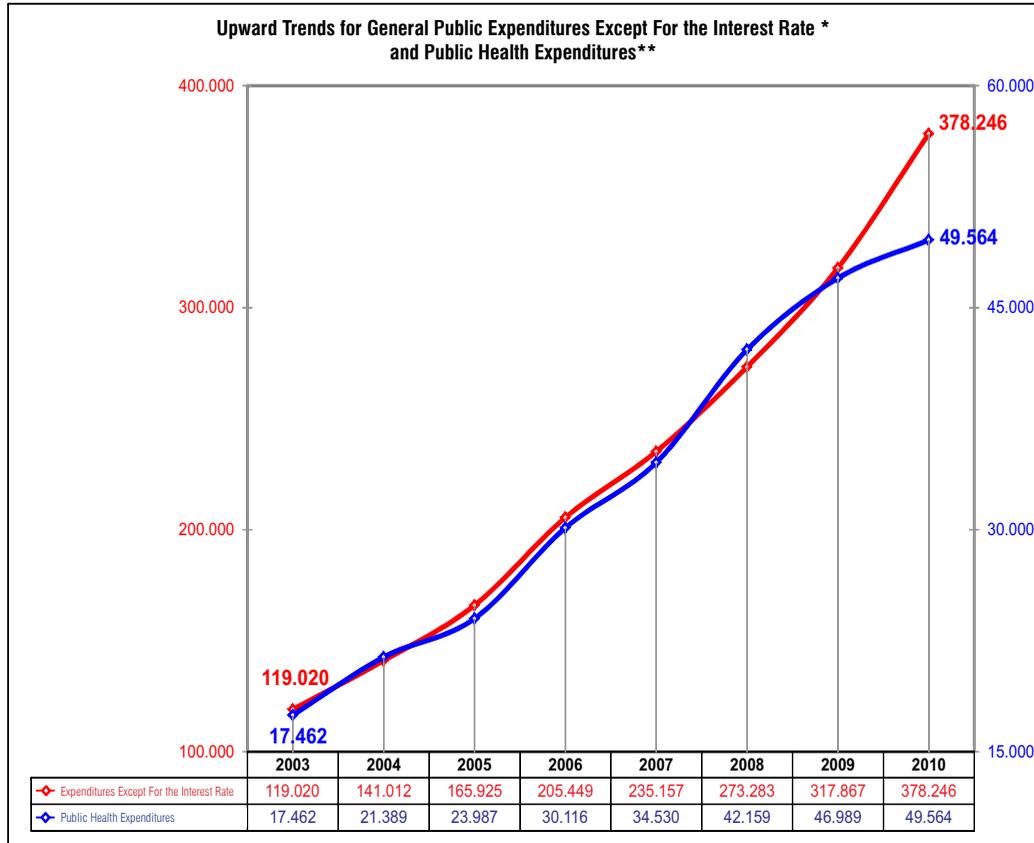
D. IMPLEMENTATION

9. Financial Management in Health

1. Health Expenditures

When we have a close look at provision of health care services in terms of quality and quantity, that the resources could not be used in an effective, efficient and rational way prior the implementation of the Health Transformation Program is easily noticed.

The Health Transformation Program has ensured optimum use of resources a productive and equal health system.



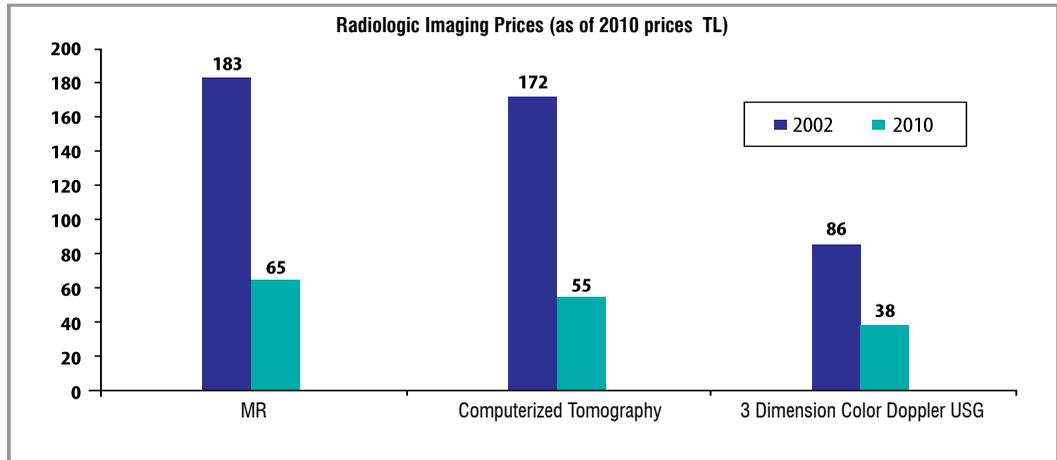
Graph 55

Source: TURKSTAT, *MoF, **SPO
Estimations of SPO for 2009 and 2010.

The increase in general public expenditures except for the interest rate was 218% and the increase in public health expenditures was 184% between the years 2003-2010. The figures in the table prove that health expenditures did not dramatically increase with the introduction of the Health Transformation Program. Additionally the rate of people paying medicine and treatment expenditures out-of-pocket was 32.1 in 2003; in 2010 this rate was decreased to 11.7%.

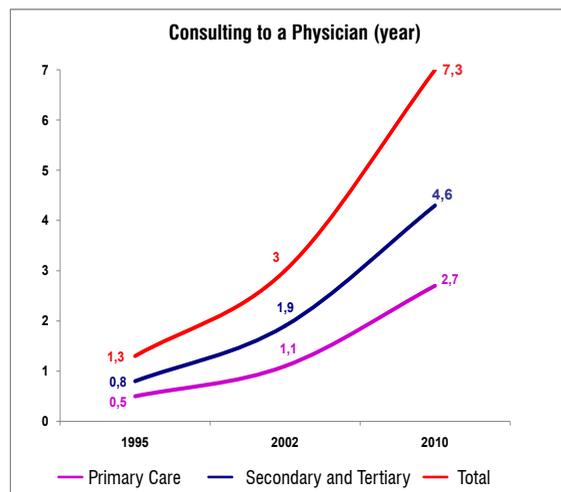
The average number of people consulting to a physician was increased to 2.5 fold. That the obstacles in reaching medicine and health care services under the scope of the Health Transformation Program were abolished had a great impact in forming this table.

High technology increases the cost of health care services is a well known fact. However, as a result of the cost-effective policies we have been implementing, we prevented high costs likely to result from high technology use.



Graph 56

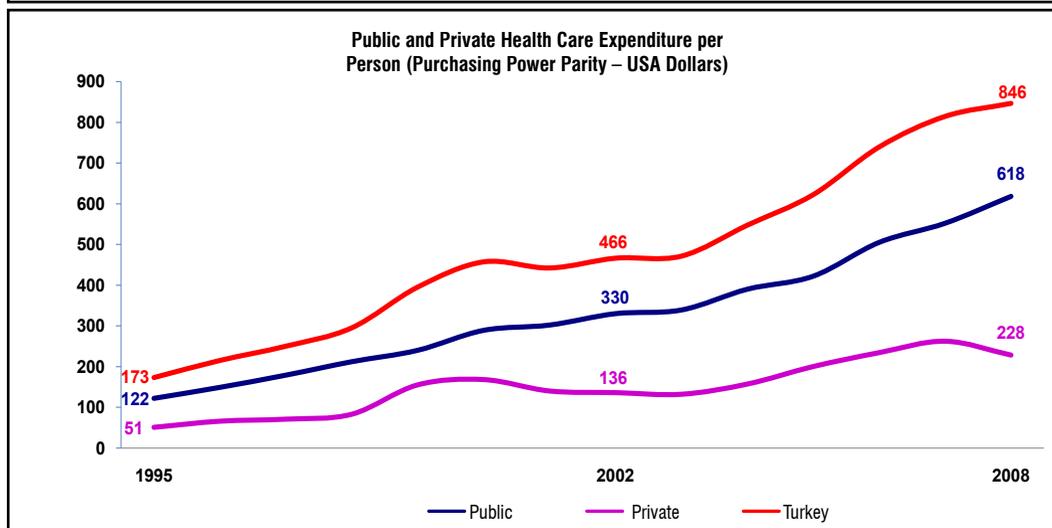
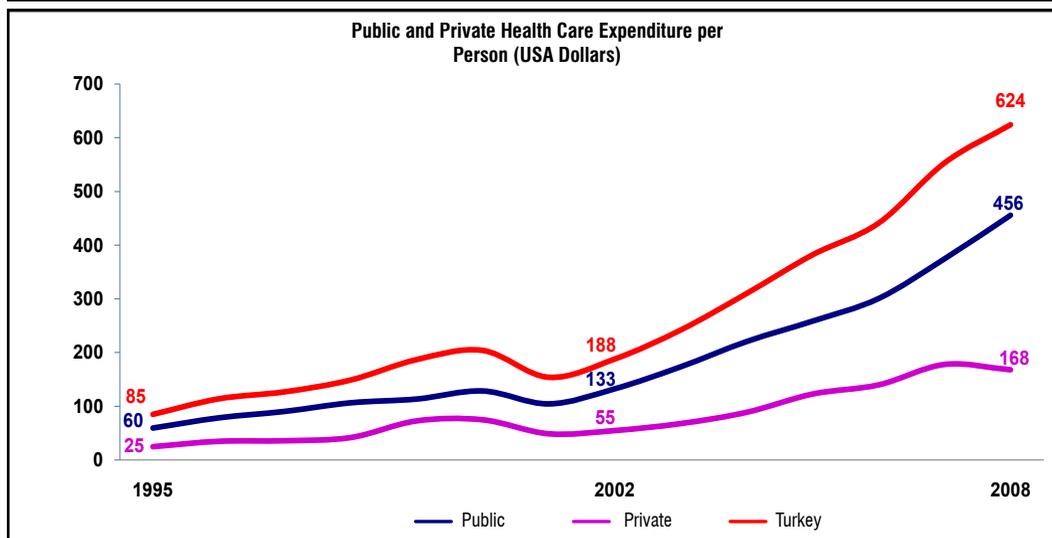
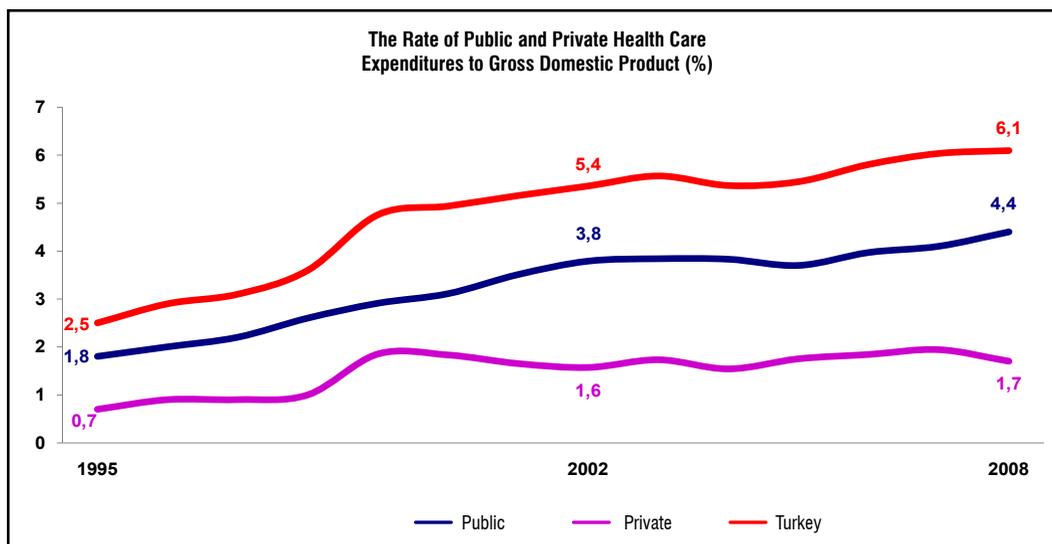
The rate of health care expenditures to gross domestic product was 1.8% in 1995; this rate increased to 3.8% in 2002. In 2008 this rate was 4.4%. The proportion of private health care expenditures among the health care expenditures was 0.7% in 1995, 1.6% in 2002 and 1.7% in 2008.



Graph 56

According to purchasing power parity, public health care expenditure per person was 122 USA Dollars in 1995 and 330 USA Dollars in 2002. In 2008, this figure was 618 USA Dollars.

Improving health care services in terms quality and quantity is only possible by optimum use of resources and increasing the budget (within the limits of financial status of the country) allocated for health care services.



Graphs 58-59-60
Source: TURKSTAT, 2010

a. Middle-Term Financial Program

The Middle Term Financial Program was established in order to ensure efficient and productive and economic use of resources as well as accountability and financial transparency.

The purpose of the Middle-Term Financial Program:

- To determine resource allocation in terms of strategic objectives,
- To ensure that the sustainability of improvements implemented in the economic and social area in Turkey is guaranteed,
- To provide consistent objectives and policies for sectors developed under the scope of macro policy privileges.

The program is open to improvements and changes with a perspective of three years and is renewed every year in accordance with the results of the annual executions and changes the country went through. Program implementations and improvements likely to affect the program are regularly monitored and assessed. The financial sustainability of the Health Transformation Program is continuing to be successful, thanks to the economy, finance and planning method managing the 2009 financial crisis and the post period successfully.

Health-related part of this program is about issues to ensure provision of health care services with an improving quality and financial sustainability. This program provides a budget for a period of three years. Hence, the optimum use of resources will be ensured by the relevant sectors.

b. Monitoring Health Expenditures

Systematic monitoring and assessment of health expenditures and improving relevant strategies with the aim of cost effectiveness and quality are included among the precautions to be taken in order to ensure effective and productive use of public resources. We founded the Commission on Monitoring and Assessment of Health Expenditures in order to fulfill all these objectives. This Commission carries out analyses with regard to the improvement of health expenditures and new policies are determined as a result of these analyses.

2. Management of the Global Budget

We improved “The Global Budget Model” in 2006 to finance health care services provided by the MoH.

The Global Budget means the prospective receivables in return to the services to be provided for a fiscal year- in other words means the expenditure cap and targets.

We aimed to keep health expenditures under control by limiting the total amount to be allocated for health care services in accordance with the Global Budget.

a. Situation prior to the Global Budget

Financing of services used to be based on invoicing system.

People under the coverage of the Social Security used to apply to a primary care facility with a health record book and a medical visit form or a patient referral paper.

Green card holders used to apply with their green cards.

People with no social security used to pay for their treatment costs out-of-pocket to obtain primary care services.

As a result of the examinations carried out during the primary care, a copy of the examination request form displaying examinations and tests carried out after the submission of a medical visit form, patient referral form and medical record book as well as the copies of tests used to be kept in the facility concerned while the originals used to be sent to the provincial health directorate. The provincial health directorate in question used to separate these papers forwarded by the primary care service institutions and used to invoice them by calculating the amount on the basis of reimbursement and per person. The invoice prepared for reimbursement institutions was accompanied by copies of other relevant documents too and each copy of the documents was also kept in the relevant file as well and these invoices and attachments used to be mailed to reimbursement institutions.

As a result of the examinations carried out during the secondary health care, the examination request form displaying examination and tests carried out after the submission of a medical visit form, patient referral form and medical record book as well as the copies of tests used to be kept in the facility concerned while the originals used to be sent to the reimbursement institutions along invoices issued.

On the other hand, inspecting invoices in reimbursement institutions was a big work of load. It was nearly impossible to inspect invoices on time.

b. Implementation Stages of the Global Budget

- Determination of the Global Budget Amount: It starts with a protocol signed between the MoF, the MoH and the MoLSS (SSI). The followings are included in the protocol:
 - The total amount to be allocated for the MoH in return for the treatment services provided for people under the scope of SSI and green card holders and people whose treatment costs are paid from the General Budget,
 - The date and the extend of amount to be paid and the reimbursement institution to pay,
 - Other issues (like the treasure share).
- The Global Budget Execution: “Lump sum price procurement of services specification” is signed by SSI and the MoH. On the other hand, the total amount specified in the protocol is applied by allowing payments for green cards determined on a monthly basis and for SSI allocation it is paid in advance.
- Determination of Allocations Surpassing the Global Budget and Cancellations: Every year a cabinet decree is passed in order to subtract the amount surpassing the amount determined in accordance with the reconciliation by the Global Budget. Principles and procedures with regard to cancellations of amounts surpassing the Global Budget are agreed on the basis of the cabinet decree, and these amounts are subtracted from the receivables of the MoH.

Table 7: Public Accrual- Allocation and Cancellation Figures per year, 2004-2010

| Year | Accrual | Allocation | Cancellation |
|-------|----------------|----------------|----------------|
| 2004 | 5.936.000.000 | 5.183.000.000 | 753.000.000 |
| 2005 | 6.629.000.000 | 4.870.000.000 | 1.759.000.000 |
| 2006 | 9.030.000.000 | 7.789.000.000 | 1.241.000.000 |
| 2007 | 10.301.000.000 | 9.233.000.000 | 1.068.000.000 |
| 2008 | 12.245.000.000 | 10.173.000.000 | 2.072.000.000 |
| 2009 | 13.522.000.000 | 11.852.000.000 | 1.670.000.000 |
| 2010 | 14.426.000.000 | 12.721.000.000 | 1.668.000.000 |
| Total | 72.089.000.000 | 61.821.000.000 | 10.231.000.000 |

Between the years of 2004–2010, the cost of the services provided by the institutions of the MoH was 72 billion TL for SSI (including green cards); however 61.8 billion TL of this amount could be received.

Approximately 15% of the cost of the services provided by the MoH for SSI was subtracted in the last 7 years.

c. Global Budgeting for the Primary Care

We initiated the Global Budget through the Article 4 of the Law No. 5597 and dated: 08/03/2007 and the Additional Clause- 2 included in the Law No. 5502. We formally started to implement the Global Budget for the primary care services and signed direct service procurement contracts with payment institutions.

We made sure that all the services provided in primary care service providers are free-of-charge regardless of whether they are under the scope of the Social Security Execution Communiqué.

We also ensured that the health reports submitted to obtain licenses granted by primary care health institutions and establishments, health reports for driver licenses and getting married, blood type determination, blood sugar measurements are free-of-charge as well. With this implementation we made it easier to access to primary care services and diminished paper work.

In addition to creating positive impacts on people, we also diminished bureaucratic procedures and paperwork among public institutions and establishments. We ensured that sending invoices and their justifications to reimbursement institutions and keeping copies, referral papers, health record books and invoices came to an end beginning from the health care centers.

Between the years of 2007-2010, we avoided 5 billion 500 million paper use and 4 billion 176 million photocopy procedures.

Via this implementation we ensured that public institutions could plan their financial future.

Via the implementation of the Global Budget, we decreased costs and accelerated the procedures in relation to budget and reimbursement.

In order to make sure that institutions spend in parallel with their incomes, we made sure that they take precautions such as efficient stock management and determine standards for service procurements.

We have decreased the expenditures of our institutions by applying a treasure share of 1% in the Global Budget in 2009 and 3% in 2010 instead of 15% as formerly determined in the relevant law. The treasure share is planned to be estimated as 1% in 2011.

If we suppose that every year 400 million patients are examined in facilities linked to the MoH and there would be at least 3 pieces of paper except for the invoice, there would be 1.2 billion pieces of paper totally. If we assume that 1.2 billion papers together with invoices and the additional papers are copied twice, it can be concluded that we ended 2.5 billion photocopies and other paperwork.

In the same way;

- Mail expenditures
- Personnel's working time in dealing with such transactions
- Unnecessary loss of time for healthcare personnel resulting from paperwork

- There is tremendous saving in terms of work force as inspection process in reimbursement institutions came to an end.

d. Distribution of the Global Budget to Hospitals

- With the aim of de-stressing our Institutions financially, we started to plan accruals determined by the Global Budget. Formerly, plans used to be made taking only invoice production into consideration. Instead of this, we initiated the approach of making plans based on the personnel burden of hospitals, the size of the area it serves for and the number of inpatients and outpatients.
- These parameters concerned are as follows;
- **Outpatient income:** Outpatient institutions can meet their minimum expenditures if they receive 75% of their accrual. For this reason, the rate of outpatient institutions to allocation is applied as 75%.
- **Inpatient income:** As the rate of allocation of accrual was 90% in 2010 the Global Budget, this rate is directly reflected on the inpatient income.
- **Extra burden of personnel for the institution:** This parameter is applied in order to diminish the difference between institutions due to payments for personnel expenditures from the revolving fund.
- **Closed area expenses:** This parameter is applied in order to ensure balance between institutions in terms of expenses due to closed areas (electricity, rent, heating, etc).
- **Building maintenance expenditures:** This parameter is applied in order to ensure balance between institutions in terms of expenses due to building maintenance expenditures.
- **Bundle procurement:** It is applied to encourage hospitals appointed for bundle procurement. For these institutions 1% of extra allocation is allocated.
- **Commitment in terms procurement:** It is used in order to encourage hospitals carrying out procurements procedures for other institutions as well. Each hospital linked to these institutions receives an extra payment of 2 per thousand of the accrual.
- **B1 Type 112 I Emergency Health Care Services Integrated Station:** B1 type integrated 112 Emergency Health Care Services stations receive an extra payment of 1 per thousand of the accrual as they constitute an extra expenditure for the institutions they are integrated.
- It has been carried out taking DRG implementation developed by the MoH into consideration since December of 2010.
- **Stock Record Order:** If the institution has an irregular stock record, a reduction from the accrual by 1% is envisaged.
- **Harmonizing with Hospital Roles:** It is envisaged that the accrual of institutions failing to harmonize with the roles of the hospital would be reduced by 1 %.

Appropriation Planning Projection Model for the MoH Hospitals:

Allocation Planning and Appropriation Program Demo

Ankara Numune Training and Research Hospital

31 May 2010 Monday

Debit/Accrual: **205%**

Debit/Accrual: **67%**

Risk Level: **4th level risky**

Ankara Numune Training and Research Hospital Main Parameters

| | | | |
|-------------------------|----------------------|------------|------------------|
| Accounting Code | Unit Code | CRIMS Code | Allocation Perio |
| 1160001 | 184 | 5898 | May |
| Monthly Average Accrual | 12.044.875 TL | | |

Ankara Numune Training and Research Hospital Supplementary Parameters

| | | | | |
|---------------------------------|---------------------|----------------------------|-------------------------------|-------------------|
| Inpatient/Outpatient Ratio (TL) | Accrual Amount (TL) | Multiplication Coefficient | Fixed Collection Amounts (TL) | Collection Ratios |
| 0,47 | 5.619.160 | 0,72 | 4.045.000 | 34% |
| 0,53 | 6.425.714 | 0,87 | 5.592.000 | 46% |
| | | | 9.637.000 | 80% |

Factors affecting the financial structure

| | | | | | |
|---------------------------|--------------------------|----------------------|-------------|--------------|---------------|
| Hospital Role Score | Current Situation | Impact on collection | Amount (TL) | Current Rate | Expected Rate |
| Appropriate for its role | Appropriate for its role | 0,00 | 0 | A1 | A1 |
| Stock Records Arrangement | Regular | 0,00 | 0 | | |

Monthly Staff Load

| | |
|--|------------|
| Monthly Total of Workers Expenses | 282.779 |
| Monthly Salary Payment from Revolving Fund | 3.625.123 |
| Monthly Wage Amount paid from General Budget | 43.501.481 |

Supplementary Parameters Total

| | |
|--------------------------|-------------------|
| Fixed Collection | 9.637.000 |
| Supplementary Parameters | 1.193.000 |
| Total Collection | 10.830.000 |

Accrual-Collection Course of the Institution

Allocation Share of Institution

Monthly Total of Workers Expenses

| | | | |
|-----------------------|---------------------|----------------|------------|
| January Allocation | February Allocation | March | April |
| 10.427.000 | 9.884.000 | 9.803.000 | 11.402.000 |
| May Allocation | June | July | August |
| 10.830.000 | 0 | 0 | 0 |
| September | October | November | December |
| 0 | 0 | 0 | 0 |
| YK total sent | | SGK total sent | |
| 9.969.000 TL | | 42.170.000 TL | |
| 2010 total accrual | | | |
| 58.310.571 TL | | | |
| 2010 total collection | | | |
| 52.346.000 TL | | | |
| 90% | | | |

3. Financial Standards Development and Regulation Procedures

a. Determining the Number of Personnel to be Assigned for Personnel-Based Service Procurements

In order to determine the number of employees to be assigned under the scope of service procurements, we initiated a dynamic system which can be modified in parallel with income, service provision, patient potential, the size of the facility and the number of current contracted and permanent personnel in accordance with the new health care service provision model improved under the scope of the Health Transformation Program.

With this regulation we brought some limitations with regard to determination of the number employees not affecting the performance and service provision of the institution in question.

With the aim of making a reliable estimation of the number of employees to be assigned for service procurements in accordance with the new criteria established and the aim of following-up these estimations on a provincial basis, we developed web-based “Determination and Follow-up of Employee Number” and sent it to our institutions.

Our institutions can determine the number of employees they can hire for a period of six months based on their criteria and performances via this program. These data can be instantly controlled and followed up by the MoH, Provincial Health Directorates and institutions. Additionally, this system also enables access to information about the number of personnel in parallel with service procurement, educational background of such personnel and their salaries.

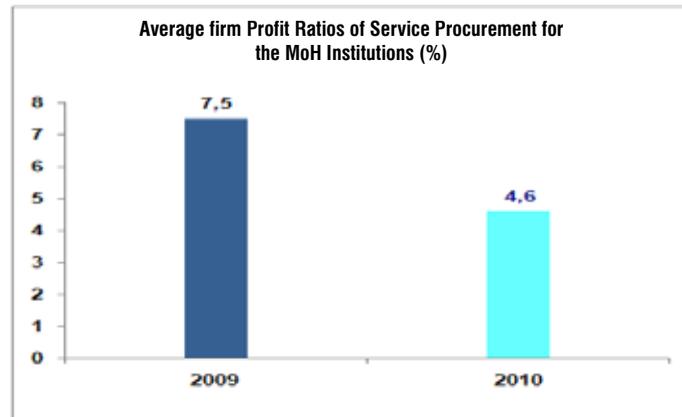
b. Profit Ratio to be Allocated for Contractors for Personnel-Based Service Procurements

In accordance with the provisions of Implementing Regulation on Service Procurement Tenders published by the Public Procurement Agency, determination of the profit ratio to be Allocated for Contractors for Personnel-Based Service Procurements is subject to the administrations of institutions on condition that the profit ratio does not exceed 20% in parallel with the quality of the work.

Through the regulations implemented between 2009 and 2010, we limited the maximum profit ratio to be Allocated for Contractors for Personnel-Based Service Procurements to 8% initially and then we reduced it to 5%.

| An Example Calculation with Employee Number Determination and Follow-up System | | | |
|---|-------------|--------------------|----------------------------|
| State Hospital » Period 2010-2 » | | | |
| Institution Parameters | Data | Coefficient | Number of employees |
| Number of Beds | 180 | 4 | 22,7 |
| Rate of Bed Occupation (%) | 50,38 | | |
| Closed Area of the Institution (m2) | 27.979 | 500 | 56 |
| Income of the Institution | 14.941.648 | 550000 | 40,1 |
| Institutional Performance Coefficient | 95 | | |
| Number of Inpatients | 8.002 | 500 | 16 |
| Number of Polyclinics | 287.016 | 9500 | 30,2 |
| Number of Emergency Polyclinics | 85.870 | 8500 | 10,1 |
| Number of Polyclinic Rooms | 38 | 2 | 19 |
| Number of Group A Operations | 115 | 500 | 0,2 |
| Number of Group B-C Operations | 2.286 | 1000 | 2,3 |
| Number of Group D-E Operations | 1.935 | 2000 | 1 |
| Number of Intensive Care Beds Level 1 | 6 | 7 | 0,9 |
| Number of Intensive Care Beds Level 2 | 11 | 5 | 2,2 |
| Number of Intensive Care Beds Level 3 | 0 | 3 | 0 |
| Number of Deliveries | 623 | 1000 | 0,6 |
| Number of Personnel with a Cadre and/or Contracted (except for Healthcare personnel) | 69 | -0,67 | -46,2 |
| Number of Current Employees: | | | 153 |
| Number of Maximum Employees to be Employed: | | | 155 |
| Difference | | | -2 |

After these regulations, we decreased average profit ratio which was 7.5% in 2009 to 4.6% in 2010.



Graph 61

We enabled the MoH to get rid of a burden of 53 million TL in 2010 thanks to this regulation.

c. Wages for Employees Hired For Service Procurement

Employees, hired for service procurement tenders based on personnel employment in accordance with the secondary legislation published by Public Procurement Agency, are paid the gross minimum wage. As a requirement of the services provided, payment of an amount more than the gross minimum wage is subject to discretionary power of the administration as long as the relevant provisions are included in the bidding document and contracts.

The fact that the institutions (even the ones in the same province) linked to the MoH are likely to determine different amounts of wages resulted in inequalities and disturbance among employees given to the fact that some institutions determine their wages at the maximum level, which increased financial burden of these institutions in return.

We developed relevant regulations in order to envisage an equal wage for employees to be hired in accordance with the service concerned, educational background and the certificates.

d. Determination of the Time of Payment and Regulation of the Payment Processes

The issue of suppliers being informed of the time of payment by the administration and the payment schedule planned being applied properly is one of the most important factors in assuring appropriate conditions while meeting the needs and efficient use of resources.

Through the regulation we have been implementing, we ensured that payment schedule is stated in bidding documents and the time of payment is not to exceed maximum 90 days in accordance with income generating of the institution and cash flow. We also ensured that institutions with a good financial status determine an earlier payment time and payment papers are forwarded to the relevant accountancies forthwith in order to avoid delays during inspection, admission and accrual processes.

In order to ensure that health care needs are met by health institutions and the satisfaction level is increased to the maximum level, we initiated stock implementations based on provision of products of high quality, low stock level and low cost.

New implementations we have initiated under the scope of stock management are as follows:

a. Implementations of Management System for Resources of Supply (MSRS):

MSRS is a web-based information management system improved to ensure efficient use and updated follow-up of resources (medicine, medical devices, consumables and office equipment) possessed by the units included in the central and provincial organizations of the MoH.

There are several modular structures for resource use and follow-up within MSRS. With this model, we established a combined resource management system including an Inventory Information System, Storage (Depot) Information System, Durable Mobile Information System, Transportation Means Information System, Medical Devices Information System, Firm Information and Health Care Centers Supply Procedures.

With this system having been implemented since 2008; several books, documents and tables required to be prepared in accordance with the financial legislation started to be prepared electronically. Additionally, with regard to accountability of works and procedures to be carried out by our units, we diminished potential errors and risks to the minimum level by automating record and reporting systems.

Prior to MSRS, as in the other public administrations, the portables of the institutions of the MoH used be followed-up by movables officers through hard copy record.

In parallel with this, financial data such as properties, consumption and stock of an institution could only be obtained at the end of the terms by closing the accounts.

Additionally in order examine properties and supply procurements of an institution or in order to find out which units received the items purchased before, the relevant books and registrations had to be examined by authorities. This procedure took a lot of time and the information obtained from these books was subject to an extra estimation process as well.

After the implementation of MSRS, all records started to be kept electronically and most of the books, papers and tables were abolished. Thus we started to prepare electronic records and reports of accountability.

MSRS implementations have enabled us to follow-up an institution's medicine and medical consumables stock, fuel oil consumption, stationary items and data about from whom, when and through what method replacement parts are purchased via detailed and consolidated reports through web.

b. Maximum Stock Amount (MSA) Implementation:

In order to continue provision of health care services in case of ambiguity of demands in the field of health, institutions are supposed to keep their stock at a certain level.

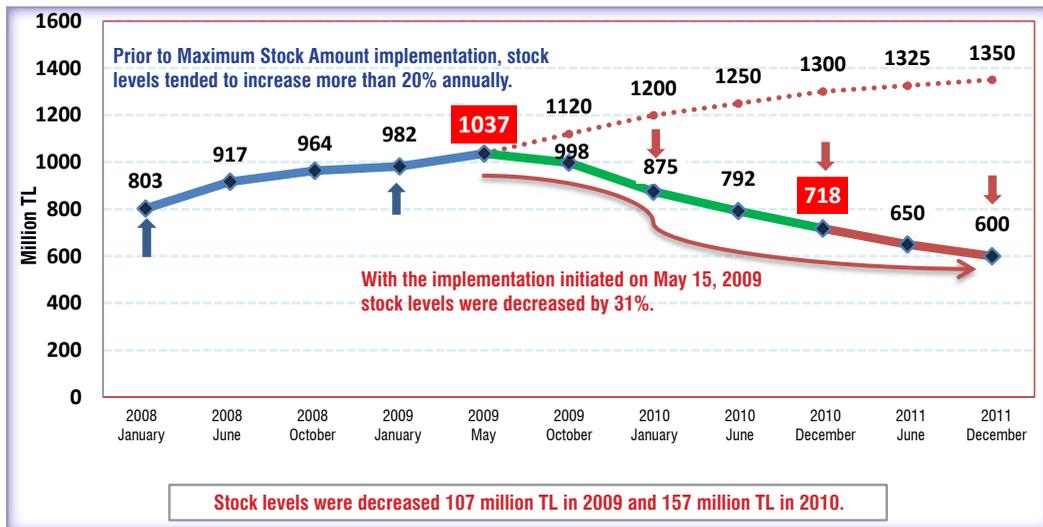
Under the scope of the Health Transformation Program, we agreed that all the medicine and medical consumables are provided by the health facility concerned in order to ensure satisfaction for patients and their acquaintances. Due to all these improvements, an increase was observed in medicine and medical consumables stocks.

We introduced new regulations in the field of stock management in order to maintain a sustainable financial structure. Within this respect, in order to minimize risks such as expiration and deterioration as well as provision and stock costs, we limited stocks to a period of three months by initiating “Maximum Stock Amount Implementation” for medicine and medical consumables.

Via the maximum stock amount implementation, we ensured that acceptance of goods are maintained in a way not to exceed a period of 3 months in accordance with the needs and shorten maturity periods by controlling payment requirements as well.

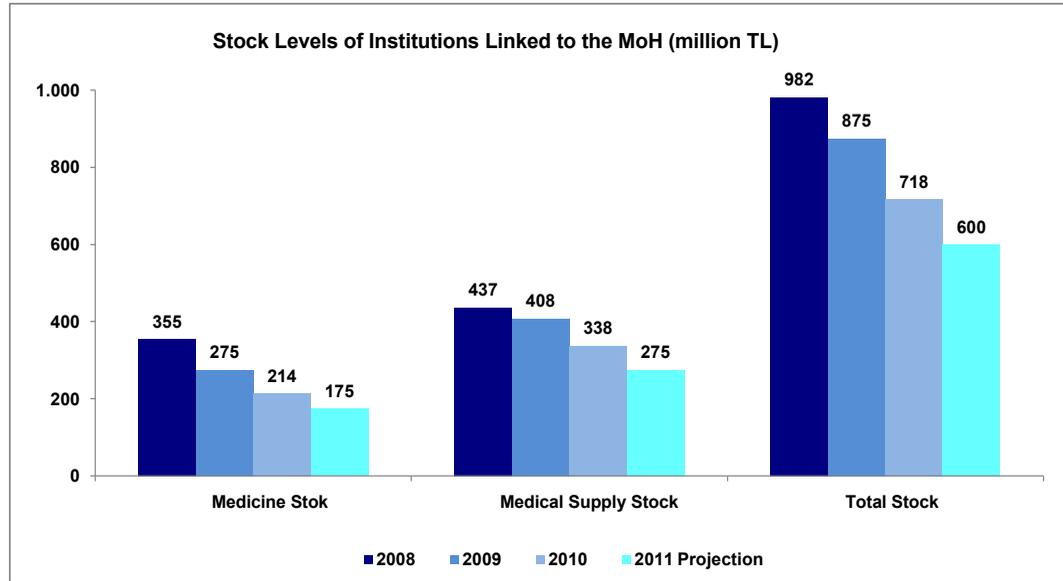
Prior to Maximum Stock Amount implementation, stock levels tended to increase more than 20% annually. By May 15, 2009 with the initiation of this implementation, we prevented stock increases and decreased the stock levels, which were 1 billion above to 718 million TL at the end of the year 2010 all over Turkey.

Maximum Stock Amount Implementation and Alteration Process of Stock Levels



Graph 62

We are aiming at decreasing maximum stock levels more for some specific items in order to ensure effective and efficient use of resources.



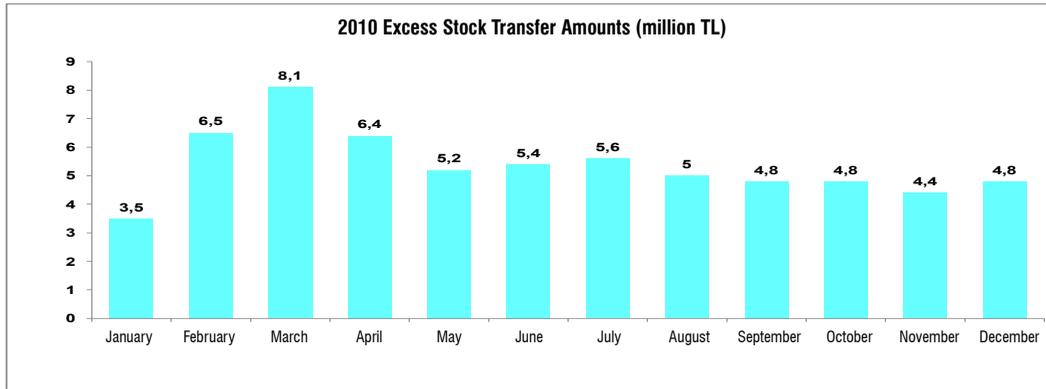
Graph 63

c. Requirement of MSRS Questioning Prior to Tenders and Provincial Stock Pool

Needs for medicine and medical consumables playing a significant role in service production expenditures have a negative influence on financial structures of institutions as well as on provision costs.

We improved “Excess Stock Portables Module” and “Surplus Portable Module” in order to transfer 3- month surplus medical supply or medicine or movables unlikely to be used due to reasons such as expiry, being old-fashioned and deterioration to an institution in need free-of-charge or with a charge.

In accordance with the provision places of products needed by institutions, we require MSRS questioning Prior to tenders to try to meet the need from the supply included in the excess stock or surplus modules preferably.



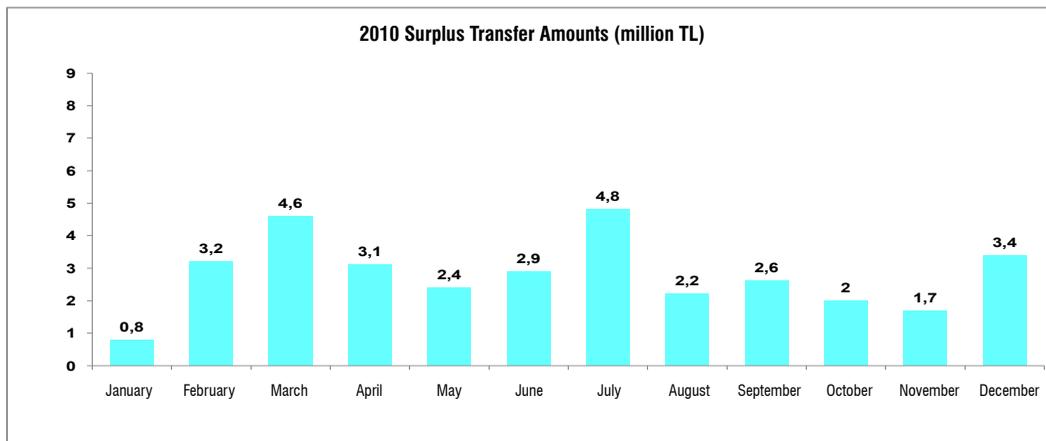
Graph 64

Note: An excess stock of 64,5 million TL was transferred in

Under the scope of this implementation, we decreased the excess stock supply transfer, which was 128 million TL in 2009 to 64,5 million TL in 2010.

According to the consumption data of medicine and medical consumables registered in MSRS, it is required to determine annual needs and maximum stock amount implementation automatically transfers products above three month of need into the excess stock module and submit it to information of other hospitals. For example, if a hospital's need for an A item is 1000 count, this hospital can only have 250 count of this item at most in accordance with the maximum stock amount implementation. If the hospital purchases 300 count of item B, 50 counts will be automatically transferred into excess stock module and submitted to information of other hospitals.

Goods and materials provided as required by service production but turned out to be extra for a reason are described as surpluses. In order support the efficient use of resources, we ensured that products included in Surplus Portable Module are transferred free-of-charge.



Graph 65

Note: A surplus of 33,5 million TL was transferred in 2010.

A surplus of 33.5 million TL in 2010 and a surplus of 88 million TL in 2009 were transferred.

One of the modules to be questioned in MSRS prior to tenders is “Supply Procurement Questioning Module”.

Administrations are enabled to access to information such as “of whom, what, from whom, when and how much” via this module and to decide about tenders based on better data through approximate cost estimations.

As a result, we use MSRS questioning as a significant means in order to transfer excessive public resources to other institutions in need and to decrease stock levels as well as economic procurement implementations.

d. Stock Analyses

The main purpose of stock and procurement analyses is to provide medicine and medical consumables required by service production through an economic procurement method.

Under the light of the information obtained through MSRS procurement method, we could analyze procurement and stocks regularly.

e. Establishment of Provincial Stock Coordination Teams and Provincial Stock Pools

As a sequence to the implementations applied in the field of stock management, we established “Stock Coordination Teams” in every province in order to render stock management efficient in the provincial level and to keep supply transfers under coordination at institutional level.

Stock coordination teams function in order to review stock practices at institutional level, to control annual needs, to prevent procurement of products which are already included in the provincial stock pool and create awareness for administrations by analyzing procurement practices.

We required institutions to meet their need from the provincial stock pool primarily before trying to purchase their needs under the control of stock coordination unit.

f. Establishment of Commissions for Determination of Needs

We established the “Commissions for Determination of Needs” in order to control appropriateness of demands for procurement of medical consumables, medicine and similar goods as well as services by our institutions and to control amounts of demands.

This commission ensures that needs of institutions are provided trying to avoid unnecessary bureaucracy. This commission decides on the followings;

- Whether a product agreed to be provided via supply procurement could be reimbursed as well as the amount to be purchased and their maximum prices,
- The minimum price that could be obtained for a certain product taking the payment by reimbursement institutions into consideration in accordance with the quality and the scope of the service to be purchased,
- Whether it is possible to meet the need at a lower price by investigating alternative products,
- Whether there is a possible method (donation, transfer from other institutions, renting, procurement) for the provision of the alternative supply or service needed,

We ensured that such commissions function as a control media in order to maintain financial sustainability of institutions.

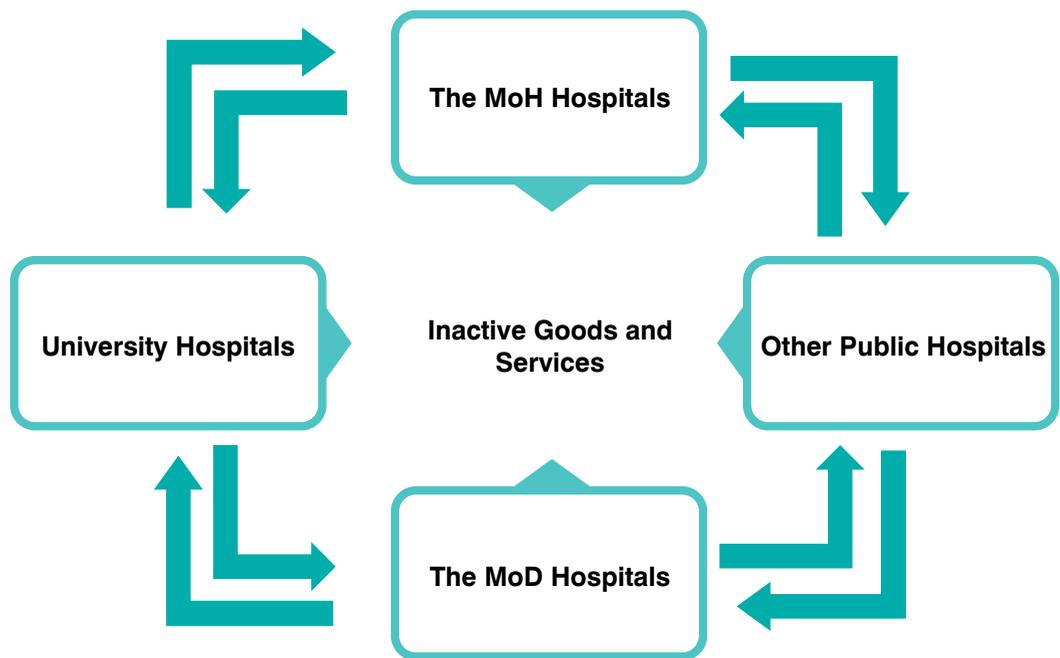
5. New Methods Developed for Provision of Needs

We implemented new methods under the scope of public procurement legislation in order to provide the urgent needs of health care institutions at a minimum cost in terms financial sustainability.

a. Enabling Public Hospitals to Exchange Goods and Services between Each Other:

We improved the relevant legislation in order to ensure that surplus of supply and portables of revolving fund institutions are transferred to other institutions in need free-of-charge or at a value to be determined.

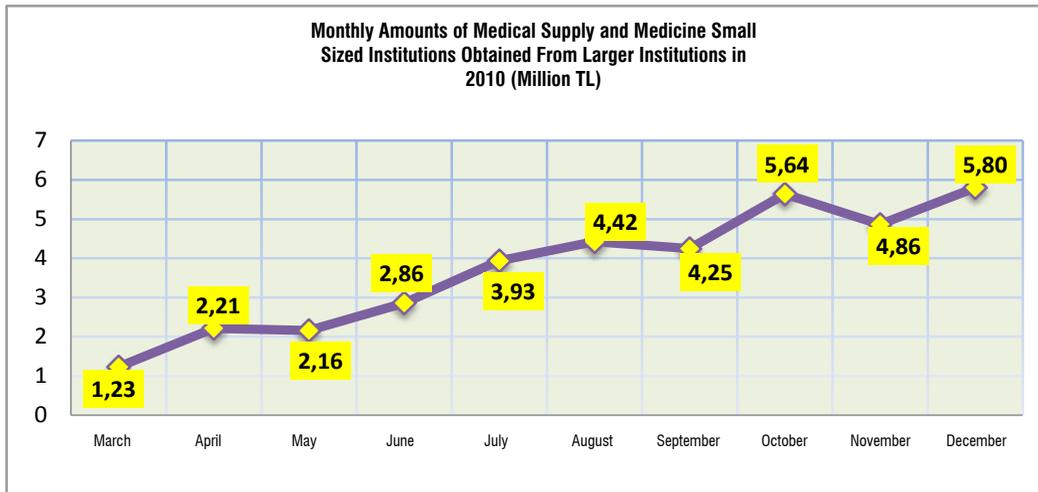
We expanded this regulation in order to include all public health institutions. We provided the opportunity to obtain the diagnostic and treatment services which cannot be carried out by health institutions and establishments in other health institutions and establishments linked to other public administrations.



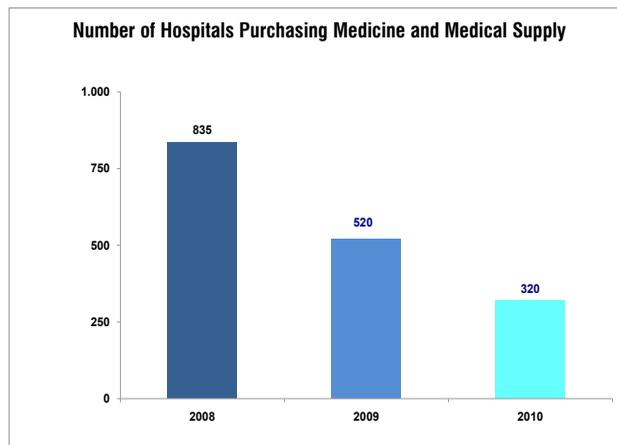
We activated surplus of resources of the MoH hospitals, university hospitals and other public hospitals with this regulation.

b. Meeting the Needs of Small-Scaled Hospitals by Large-Scaled Hospitals

In parallel with the regulations in the relevant legislation, by the second half of 2009, the needs of Small-Scaled Hospitals with a limited procurement capacity are met by Large-Scaled Hospitals. We simplified procurement procedures of institution and decreased stock costs.



Graph 66



Graph 67

Through these implementations we decreased the number of hospitals purchasing medicine and medical supply from 835 to 320. We enabled a purchase of 38.5 million TL of medicine and medical supply by larger institutions on behalf of small sized ones in 2010.

c. Bundle Procurement through a Bundle Contract

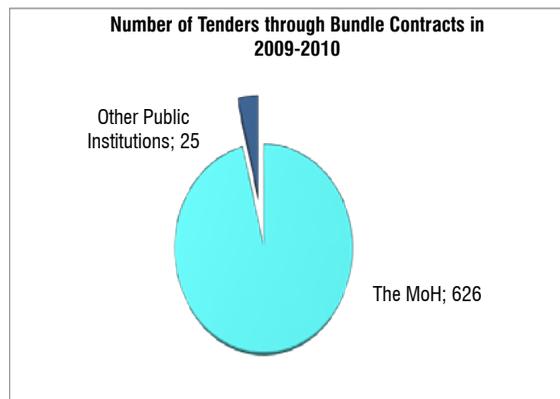
We initiated the relevant legal arrangement in order to ensure that procurement of services and goods needed by health service providers is carried out through a bundle agreement.

Bundle contracts are a significant method which contributes efficient stock management of public administration enabling rapid procurement of needs from pre-defined providers.

The most important aspect of bundle procurements is that they do not load another burden on administrations for procurement. Additionally, in a bundle contract (this period might go up to four years), it is not necessary to call for tender for each procurement and candidates are not required to submit their papers again and again to prove their compatibility.

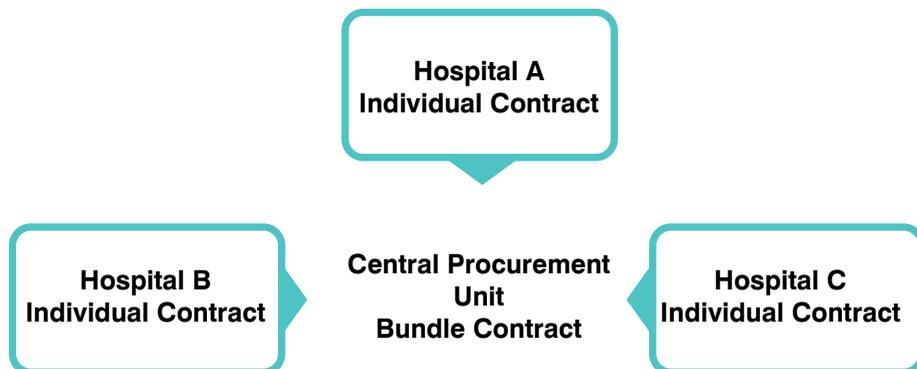
The MoH started to benefit from bundle contracts on a large scale in order to meet the needs.

Between the years of 2009 and 2010, 96% of the tender through bundle contracts were carried out by the MoH in Turkey.



Graph 68

We made it obligatory to use bundle contracts in order to meet the needs for medicine and medical devices on a provincial basis via an ordinance published by the MoH in 2009 and we gave instructions in order to ensure that such procurements are handled by Provincial Health Directorates or Central Procurement Units established in hospital with capacity to regenerate procurements within the province concerned.



After we necessitated the use of bundle contracts, we held information meetings about the legislation on bundle contracts for the personnel employed in central procurement units established in 81 provinces and for representatives from the sector with the contributions of experts from Public Procurement Agency.

We saved 8 million TL in 2010 in procurements through bundle contracts (Individual Contracts).

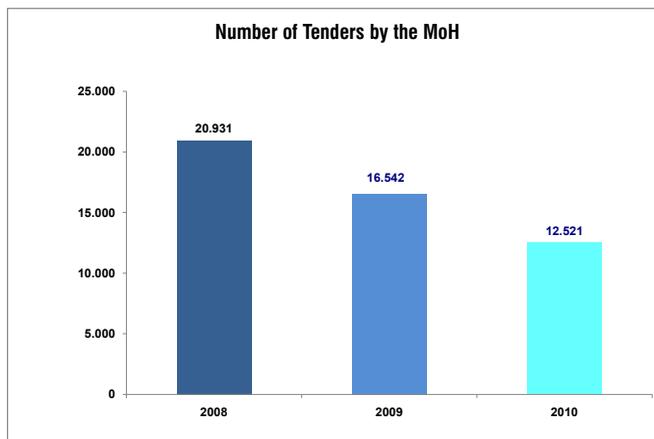
We aimed to increase the rate of the use of bundle contracts in order to meet the need of our institutions by implementing the relevant legislative alterations to remove the problems resulting from the current legislation via regulating legislations by promoting the participation of candidates into bundle contracts.

d. Meeting the Needs of Laboratory Service Providers through Bundle Procurements

With the aim of meeting laboratory needs in an economic and efficient way, we necessitated bundle procurement of laboratory needs of 629 institutions by Provincial Health Directorates with an insufficient procurement capacity and low budget through a regulation we developed in 2010.

Via the regulations initiated in 2009 and 2010;

- a. We decreased the costs of provision and stocking.
- b. We ensured the establishment of common terms of references.
- c. We increased procurement capacity of our institutions.
- d. We encouraged competitions for the tender to be held.
- e. We decreased the number of tenders. (We saved 21 million TL just from the fund allocated for advertisement)



Graph 69

e. Facilitating the Provision of Needs for Research and Development

Under the scope of paragraph (f) of the Article 3 of Public Procurement Law No. 4734, we described all the procedures and methods for all kinds of service procurements with regard to the research and development activities to be carried out in the field of health by the MoH institutions.

The research and development services to be carried out in the field of health care can be purchased from the sector through bargaining or direct provision method based on the principles defined by the MoH and directly from public institution and universities based on the principles of the relevant protocol.

In return for the services obtained from public institutions and universities carrying out the research and development activities needed by the MoH, we allocate 1 million TL financing for each service thus contributing to improvement of research and development activities, an obvious deficiency in Turkey.

6. Establishment of Financial Management Information System

Provision of better services by hospitals and other health institutions and establishments depends on appropriate and timely use of limited hospital revenues and current resources.

With the aim of maintain financial sustainability of our institutions, a liable information system was need to be established and improved along with the legislative regulations.

In parallel with appropriate management of current resources and revenues, we established the Uniform Accounting System in 2004 and we improved other web based finance management means as well.

a. Uniform Accounting System

Via Uniform Accounting System, we rendered the electronic momentary follow-up of financial situation of hospitals as well as the administrator, relevant personnel and accounting units and central users.

We enabled the follow-up debts and receivables of our institutions.

We decreased work load of accounting units via Uniform Accounting System. We established the relevant infra structure for the procedures included in the responsibilities of accounting authorities.

b. Budget Program for Revolving Fund Institutions

We ensured that our institutions could establish their budgets for every fiscal year by providing with revenue and expenditure estimations. We followed up their budget regenerations and kept their revenues and expenditures under control.

We avoided high expenditures especially through determination of investment budget in accordance with the financial structures of institutions in terms of budget implementations.

We accelerated the process of procurement of services and goods by introduction web based budget transactions.

Home Page Change Password Period: 2012 Help Safe Log out



**Republic of Turkey, Ministry of Health,
the Budget of Revolving Fund Institutions**

*****FAQ*****
Frequently Asked Questions

Click

Operations waiting

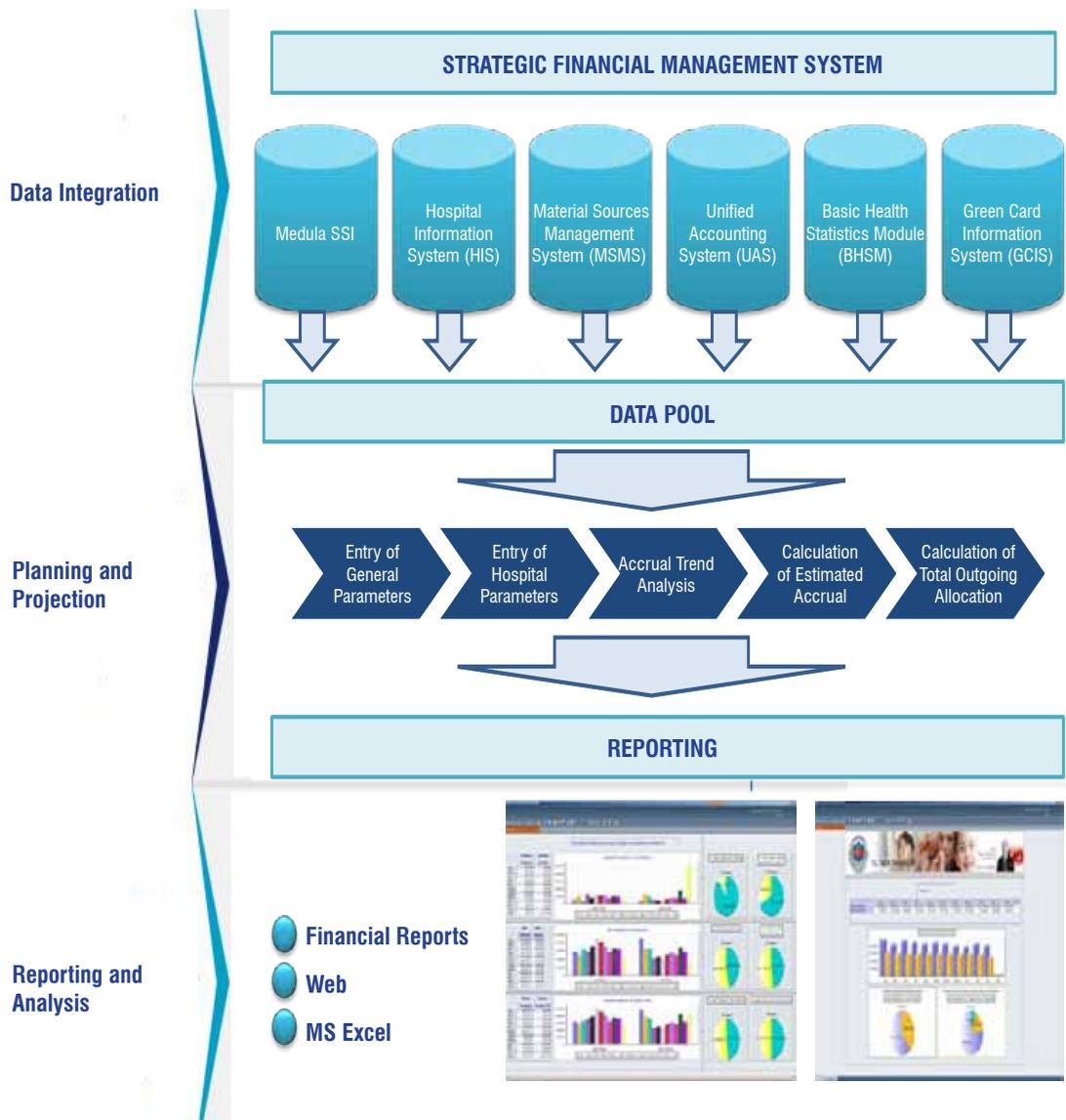
- Budgets are waiting at the Ministry
- Budgets are waiting to be signed
- 1 Additional Budget is waiting at the Ministry
- 2 Additional Budgets are waiting to be signed
- 69 Transfers are waiting at the Ministry
- 13 Transfers are waiting to be signed

| | |
|---|---|
| <p> Message Identification Actions Message Identification Actions</p> <p> Next Period Budget Report Next Period Budget Report</p> <p> Circular on %10, construction, goods and services items Paragraph (I) of the Article 62 of Law No. 4734</p> <p> Budget history Click on to access to the budget history of institutions</p> <p> Description of reduction allocations Transfer action report</p> <p> 2011 period budget call 2011-2012-2013 revolving fund capital budget call</p> <p> U.A.S Program Uniform Accounting System Program</p> <p> Work intelligence Moveable records and reports</p> <p> Institution info Institution info</p> <p> Share of 2% not to be deducted from hospitals Share of 2% not to be deducted from hospitals</p> | <p> Revolving Fund Budget Report Revolving Fund Budget Report</p> <p> Detailed Budget, additional budget, transfer report Detailed Budget, additional budget, transfer report</p> <p> SGK additional equivalent Accrual Premium Social Security Institution additional equivalent accrual premium</p> <p> Logs Logs</p> <p> Transfer action report Transfer action report</p> <p> Training for the preparation of 2011 budget Training for the preparation of 2011 budget</p> <p> Program for detecting the number of workers Standards used in the detection of the number of workers</p> <p> Budget items description Budget items description</p> <p> Private hospital accrual information form Private hospital accrual information form</p> |
|---|---|

c. Strategic Financial Management System

We started to develop the system in order to carry out all the financial work and transactions of the MoH, and to analyze and review the situation of institutions, to determine their financial risks and to put forward recovery proposals reporting the determinations found out.

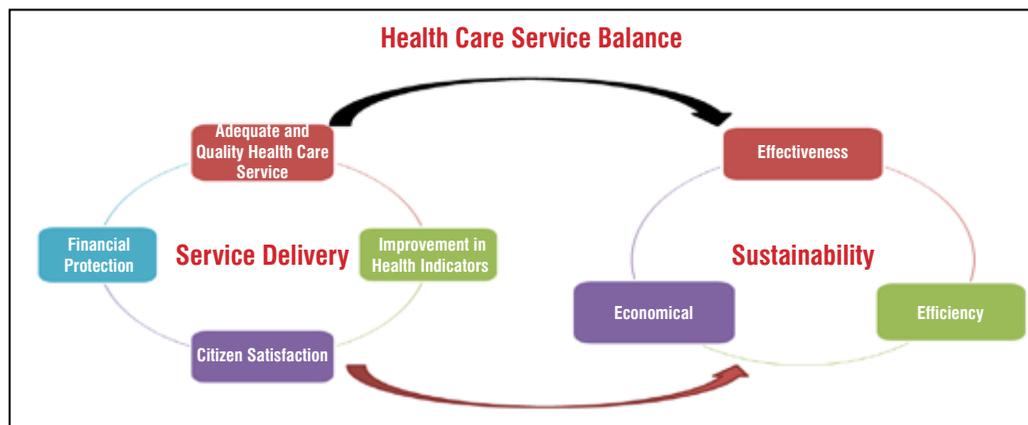
With the aim of ensuring an effective planning and projection process, we established a fast, accurate, multi-dimensional, flexible and modular infrastructure maintaining integration of current systems based on a single resource.



7. Risk Management and Financial Analysis

a. Financial Risk Management of Institutions

The main purpose of the regulations implemented under the scope of the Health Transformation Program is to sustain adequate and high quality health care services in way to improve satisfaction- based health indicators under the coverage of financial protection. Achievement of this objective is undoubtedly possible by effective and efficient use of resources as revolving fund institutions.

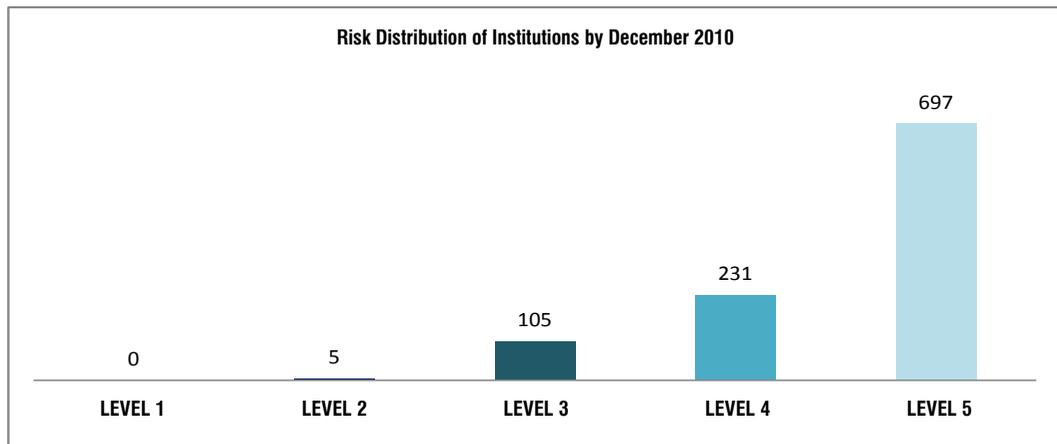


In parallel with this purpose, we carry out financial risk analyses by assessing our revolving fund institutions in terms of their financial data and we follow up their risk situation through five different grading system.

Table 8: Risk Estimations of Revolving Fund Institutions by December 2010

| CRITERION | INSTITUTION | LEVEL |
|---|--------------|---------|
| Institutions where the ratio of total net debt to average accruals is 2 and above | 0 | LEVEL 1 |
| Institutions where the ratio of total net debt to average accruals is between 1.5 and 2 | 5 | LEVEL 2 |
| Institutions where the ratio of total net debt to average accruals is between 1 and 1.5 | 105 | LEVEL 3 |
| Institutions where the ratio of total net debt to average accruals is between 0.5 and 1 | 231 | LEVEL 4 |
| Institutions where the ratio of total net debt to average accruals is below 0.5 | 697 | LEVEL 5 |
| Total institution number | 1.038 | |

Under the scope of risk analysis, we assess each institution in terms of their budget balance and resource management based on their service production revenues and debts. In this respect, we graded institutions with a total debt equal to twice as much of their monthly service production revenue as level 1 risk.



Graph 70

b. Financial Analysis Reports and Financial Action Plans

The institutions followed-up in terms of their risk analysis through financial tables are determined before they constitute a high risk level and financial analysis meetings are held with the administrators of such institutions.

We review the performance of service production and revenue- expense regenerations of institutions and analyze such data in comparison with the data coming from other institutions with the same role during these meetings. As a result of these meetings held, we prepared “Financial Analysis Reports” and “Financial Action Plans (FAP)” specific to each institutions in order to maintain a more effective and efficient use of resources with the aim of ensuring financial sustainability by eliminating potential financial risks.

Additionally we followed-up the items included in the analysis reports and action plans along with the periodical regenerations and held consultancy meetings with the administrative body concerned.

c. Financial Management Meetings

Under the scope of financial assessments, we held regular “Financial Management Information Meetings” for hospital managers.

Within this respect, we also conducted training and information meetings about the new regulations implemented through the changes in financial legislation for hospital managers playing an important role in management of institutions and for chief physicians especially playing a role in expenditure.

We tried to make a difference with the use of financial tables and implementation results in terms of revenue and expenditure balance in order to maintain financial sustainability of institutions during these meetings.

Additionally, in order to follow up regulations implemented with the aim of ensuring an efficient financial management, we continued to carry out these training and information meetings every three months.

d. Establishment of an Internal Control System

d1. Regulation in Accordance with Public Financial Management Control Law No. 5018



COSO PYRAMID

Under the scope of the Public Financial Management Control Law No. 5018, we aimed to establish an internal control system based on the Integrated Control Frame (COSO) model in accordance with our public management system and the international standards and EU implementations. We started the works with regard to establishment of the Internal Control System in the Directorate of Strategy Development in 2009 as a first step in accordance with this model in order to ensure effective services, to produce administrative and financial reports and to increase efficiency and to align such services with the law and regulations in effect.

As a second step, under the scope of Public Internal Control Standards prepared by the MoF, the MoH put Internal Control Standards Harmonization Action Plan in effect on 30.06.2009.

The action plan which is implemented in Central Expenditure Units of the MoH and which is established to conduct risk assessment and control activities and which is also established in order to form, implement and develop information and communication and monitoring as well as a control environment, which are the components of internal control system, includes the followings:

1.CONTROL ENVIRONMENT: is a general framework laying the ground for other elements of internal control and covers elements relevant to personal and professional honesty, ethical values of the management and the personnel, supportive attitude towards internal control, organizational structure, human resources policies and practices as well as management philosophy and style of doing business.

| | Code and Name of the Standard | General Condition | Action Designated |
|----------------------------|---|-------------------|-------------------|
| Control Environment | 1. Ethical values and honesty | 6 | 8 |
| Risk Assessment | 2. Mission, Organizational structure and duties | 7 | 9 |
| Control Activities | 3. Competence and performance of the personnel | 8 | 13 |
| Information-Communication | 4. Subsidiarity | 5 | 5 |
| Monitoring | TOTAL | 26 | 35 |

2.RISK ASSESSMENT: is the process of identifying risks to prevent the achievement of the goals of the Authority and of analyzing and determining necessary measures.

| | Code and Name of the Standard | General Condition | Action Designated |
|----------------------------|---|-------------------|-------------------|
| Control Environment | 5. Planning and Programming | 6 | 6 |
| Risk Assessment | 6. Identification and assessment of risks | 3 | 6 |
| Control Activities | TOTAL | 9 | 12 |
| Information- Communication | | | |
| Monitoring | | | |

3.CONTROL ACTIVITIES: are policies and procedures formed with the aim of ensuring the achievement of the goals of the Authority and managing risks identified.

| | Code and Name of the Standard | General Condition | Action Designated |
|----------------------------|---|-------------------|-------------------|
| Control Environment | 7. Control Strategies and methods | 4 | 4 |
| Risk Assessment | 8. Identification and Documentation of Procedures | 3 | 3 |
| Control Activities | 9. Segregation of duties | 2 | 2 |
| Information- Communication | 10. Hierarchical controls | 2 | Mevcut |
| Monitoring | 11. Sustainability of activities | 3 | 5 |
| | 12. Information systems controls | 3 | 6 |
| | TOTAL | 17 | 20 |

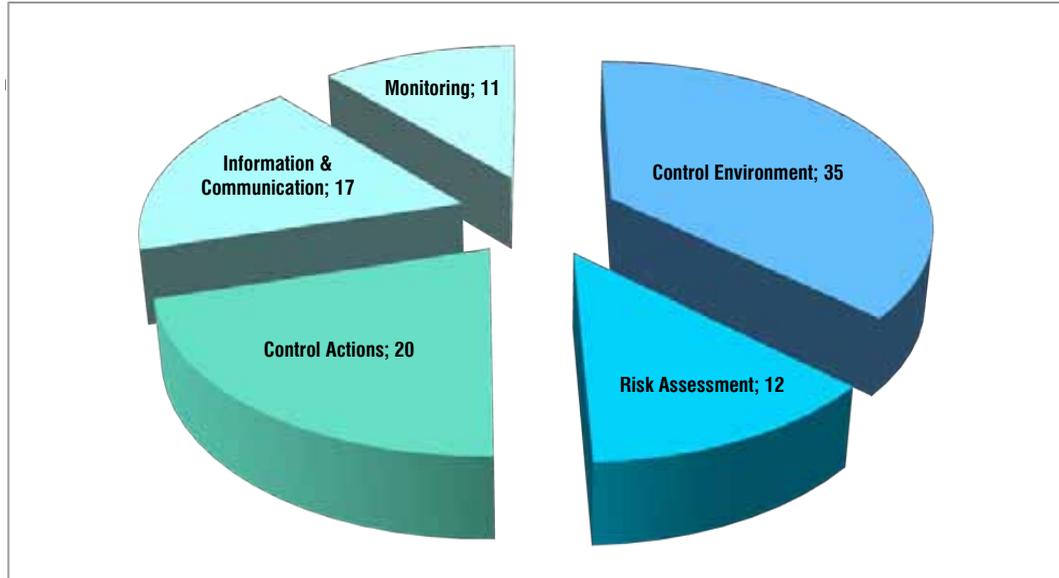
4. INFORMATION AND COMMUNICATION: covers the information, communication and recording system to convey the necessary information to the person, personnel and manager concerned in a specific format and in a way to ensure its communication in a specific time period allowing those concerned to fulfill internal control and other responsibilities.

| | Code and Name of the Standard | General Condition | Action Designated |
|-----------------------------------|--|-------------------|-------------------|
| Control Environment | | | |
| Risk Assessment | | | |
| Control Activities | | | |
| Information- Communication | Information and Communication | 7 | 8 |
| Monitoring | Reporting | 4 | 3 |
| | Recording and filing system | 6 | 5 |
| | Reporting failures, irregularities and corruptions | 3 | 1 |
| | TOTAL | 20 | 17 |

5. MONITORING: covers all monitoring activities conducted to assess the quality of internal control system.

| | Code and Name of the Standard | General Condition | Action Designated |
|----------------------------|--------------------------------|-------------------|-------------------|
| Control Environment | | | |
| Risk Assessment | | | |
| Control Activities | | | |
| Information- Communication | Evaluation of internal control | 5 | 7 |
| Monitoring | Internal audit | 2 | 4 |
| | TOTAL | 7 | 11 |
| | TOTAL | 79 | 95 |

Actions for Internal Control Standards



In 2010, with the aim of establishment and implementation of activities for internal control standards mentioned above, we conducted the Project on Establishment of Internal Control System in 21 Central Expenditure Units of the MoH. Under this scope, we carried out 1319 work analyses in Central Expenditure Unit.

- We defined 210 main processes and 661 complementary processes in our central expenditure units in the field of process and risk management with regard to the system with the aim of increasing the performance of our institutions. Through internal control system, the processes carried out by the MoH were reviewed and relevant analyses were conducted as well as defining these processes in the system by establishing internal control standards and their controls.
- Under the scope of the Internal Control System of Central Expenditure Units, we established 1423 work flows and 1086 terms of references in order to form the general conditions for control environment standards with the works conducted together with project teams. On the basis of the data obtained, we reviewed the main functions constituting the organizational structure of the MoH in terms of authorization and responsibility distribution, liability and production of better data for reporting once more. We proposed structural suggestions for central expenditure units taking current structures within the system and work titles into consideration and prepared organization books for all central expenditure units.

- We prepared a SWOT matrix for Internal Control System in terms of risk management taking into strengths –weaknesses and opportunities-threats defined in the Strategic Plan of the MoH into consideration.
- With Internal Control Project concluded, we aimed at practicability of all the administrative and financial procedures of the MoH by restructuring activities conducted in a more effective and efficient way. We standardized all the outcomes and the documents by carrying out the activities specified in the action plan with regard to control environment, risk assessment, control activities and information and communication monitoring standards.
- We controlled appropriateness of 33 commitment documents and contract projects in terms of the relevant legislation through 216 orders of payment arranged by central units of the MoH. As a result of the control of these commitment documents and contract projects carried out through the order of payment concerned, we conducted a financial control of the payment of 2.8 billion TL obtained from the general budget resource.

d2. Provincial Evaluations: Inch by inch Eighty One Provinces

Works carried out based on on-site assessment of implementations enabled observing the services provided by the personnel of the MoH on-site, one of the most common organizations of Turkey.

H.E. Minister and field coordinators made a total of two million km during their field visits which have been carried out since 2006 in a more inclusive and detailed way. This estimation is equal to going around the world more than forty times.

We visited eighty one provinces without any exception. We carried out more than one evaluation in several provinces. We discussed the problems of these provinces with local administrators. We shared tasks in order to find solutions. We transferred health administrators already assigned in a province to another province; hence we gave them a chance to review other institutions and make comparisons. Therefore provincial assessment studies were also regarded as in-service training opportunities. We are so proud to see satisfaction of our people as a response to all these efforts.

Basic Benefits of Provincial Evaluations:

- **Intellectual Follow-up**

All the information and statistics obtained during field studies were compared with the ones obtained from the next field study to the province concerned.

We questioned if the items instructed during the previous visit by arranging monitoring reports in the subsequent field visit were actualized or not.

Thus we set the idea of monitoring the instructions given during the field visit and ensured that the improvements would be accelerated.

- **In-service training**

We transferred health administrators already assigned in a province to another province; hence we gave them a chance to review other institutions and make comparisons.

Thus, the Health Transformation Program provincial health services were also regarded as in-service training opportunities.

- **Encouraging search for solutions**

We paid attention to suggestions from personnel during both the visits and the evaluation meetings. We promoted sharing and declaration of ideas. We encouraged our personnel to be a part of the solution rather than the problem.

- **Exchange of experiences**

Through these works we enabled health administrators exchange their experiences with each other. We assigned 1640 people from the central organization of the MoH and 2580 people from provincial administrators at different times for Field Assessment Studies.

- **Communication and Consultation**

We ensured that administrators from across the country meet with each other and share the problems they encountered and try to find a solution in consultation with each other. We carried out “Provincial Assessment Meetings” in every province at least twice and founded an understanding to find common and participative solutions.

- **Horizon broadening and institution scanning**

We visited 16100 hospitals, 1250 dental clinics and 25500 primary care service providers in order to enable administrators to evaluate cases happening other than in their own institutions.

- **Standardization**

We made our institutions understand that they were not alone and the importance of establishing a standard with other similar institutions. We established a “common language” and a “common vision”.

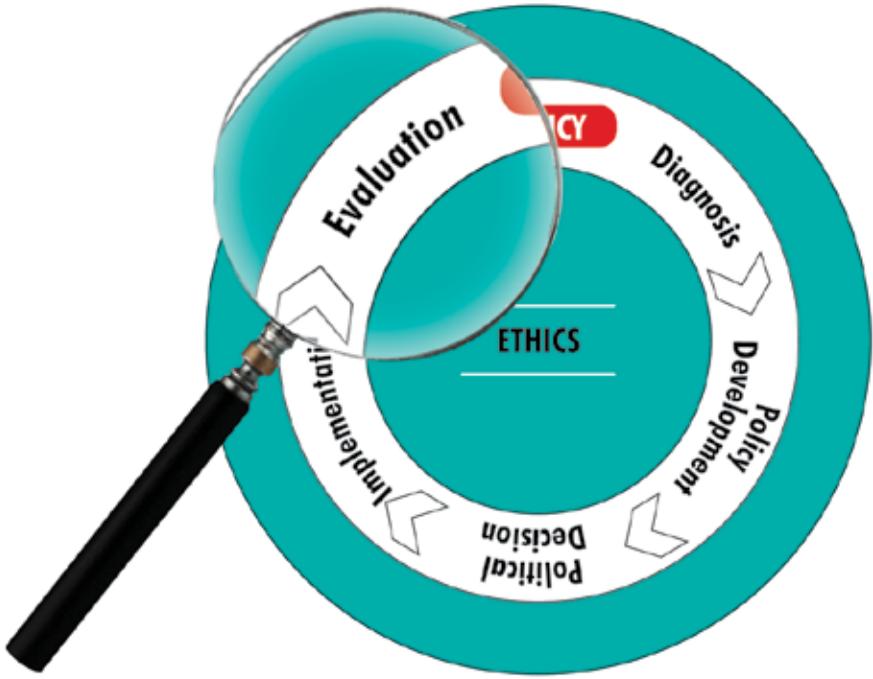


Under the scope of the Health Transformation Program, we evaluated 243 provincial health care services since 2006. H.E. attended 154 of these visits. Additionally field coordinators visited hospitals 16100 times, Oral Dental Health Care Centre 2350 times and primary care centers such as health centers, tuberculosis control centers, mother and child care and family planning centers, public health care centers 25500 times and carried out on-site assessments.

TURKEY'S HEALTH TRANSFORMATION PROGRAM



E. EVALUATION

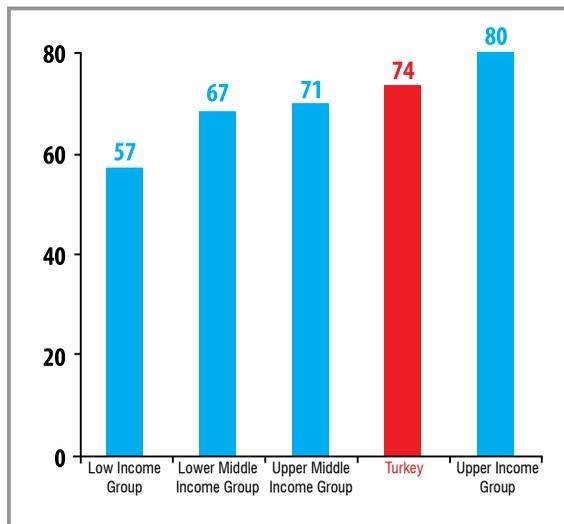


1. Implementation Results of the Health Transformation Program (HTP)

A. Improvements in Health Indicators

Although Turkey is included among the group of upper-middle class income countries by WHO, its Health indicators achieved are comparable to the ones in upper class income countries.

1. Life Expectancy at Birth



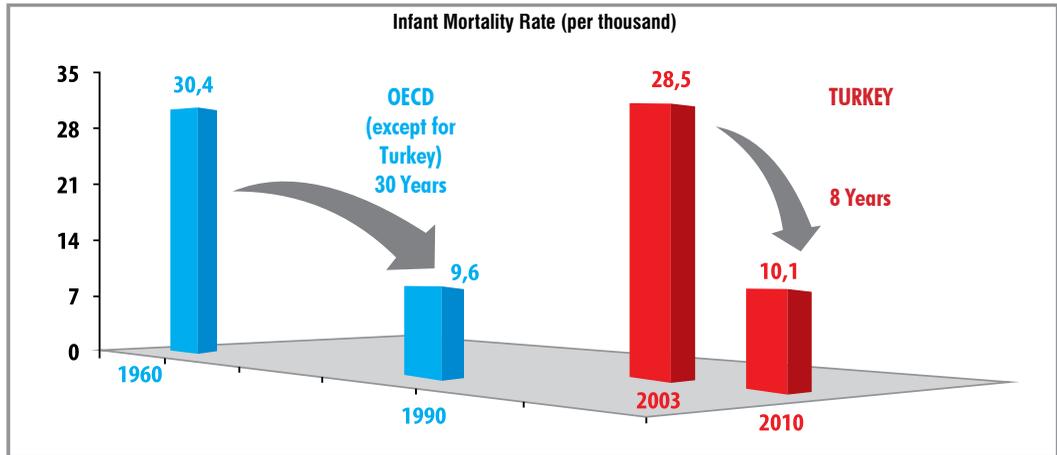
Graph 71
Source: WHO 2010 Statistical Annual

According to the report by WHO in 1998 (221 pages), life expectancy in Turkey was estimated to be 75 years in 2025.

We have already achieved this.

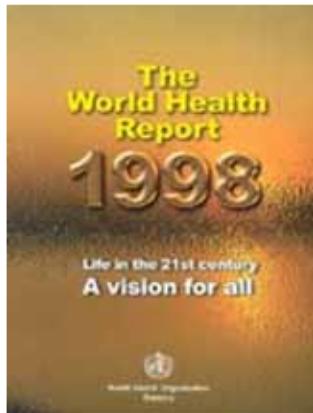
Although Turkey is included among the group of upper-middle class income countries, the average life expectancy at birth is higher than the countries included in the same group.

2. Infant Mortality Rate



Graph 72

Source: OECD Health Data, 2009; TNSA, 2008



According to the report by WHO in 1998 (221 pages), infant mortality rate in Turkey was estimated to be 16 years in 2025.

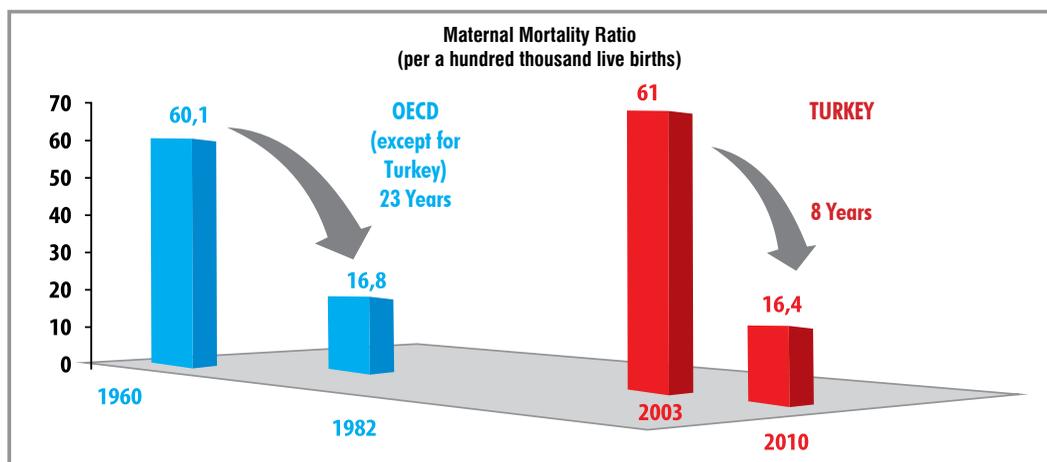
We managed to achieve in 8 years what other OECD countries did in 30 years.

We reduced infant mortality rate to 10 per thousand in 2010.

3. Maternal Mortality Rate

Decreasing maternal mortality ratio is one the significant health indicators.

We managed to achieve in 8 years what other OECD countries did in 23 years with regard to decreasing maternal mortality ratio.

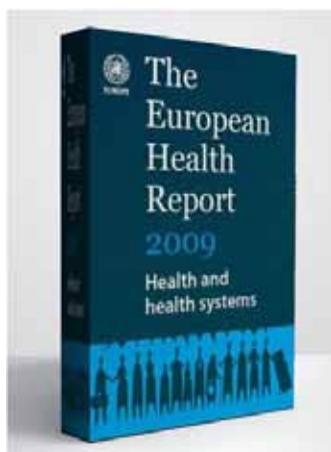


Graph 73

Source: OECD Health Data 2009, the MoH

(*)According to the estimations of WHO and UNICEF, the

WHO has confirmed this success.



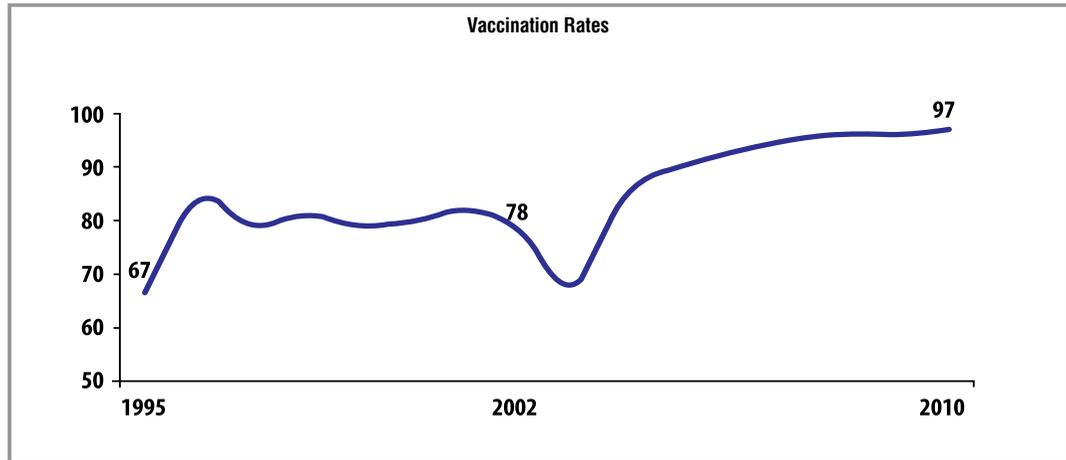
WHO, European Health Report 2009 (Page 18):

“This progress is largely due to making maternal mortality a political priority, funding it accordingly, pursuing policies and providing services in a culturally sensitive manner.

This includes establishing pre-delivery care homes for expectant mothers near a hospital and providing land and air transport free-of-charge for obstetrical emergency cases, greatly reducing the distance and time needed to access appropriate and high-quality specialized care.”

4. Routine Vaccination Rate

Turkey is one of the countries setting an example in terms of baby vaccination variety and vaccination rates it achieved

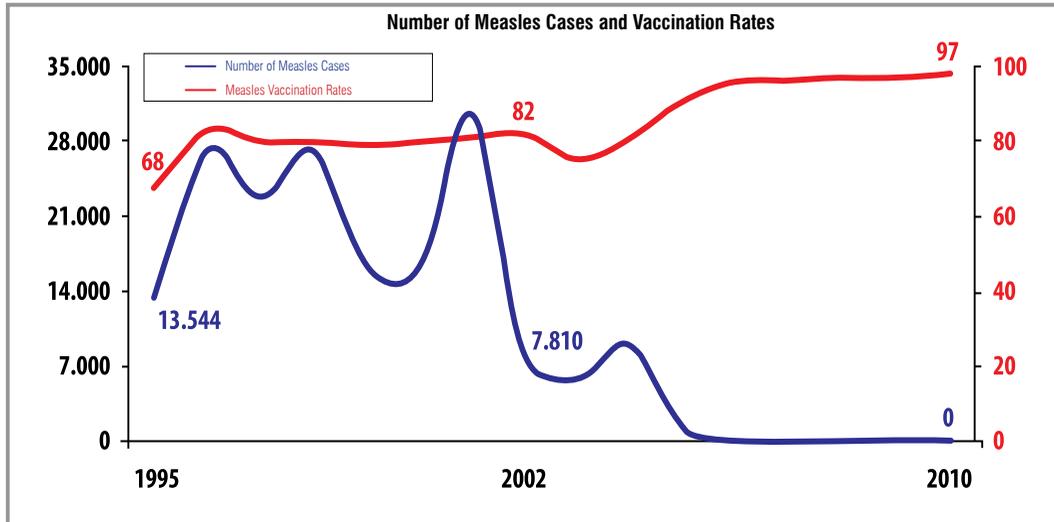


Graph 74

According to the report by WHO in 2010, this rate for the countries in the upper income countries in 95%.

5. Measles

Although Turkey is included among the group of upper-middle class income countries, its vaccination rate is above the vaccination rates in upper income countries.

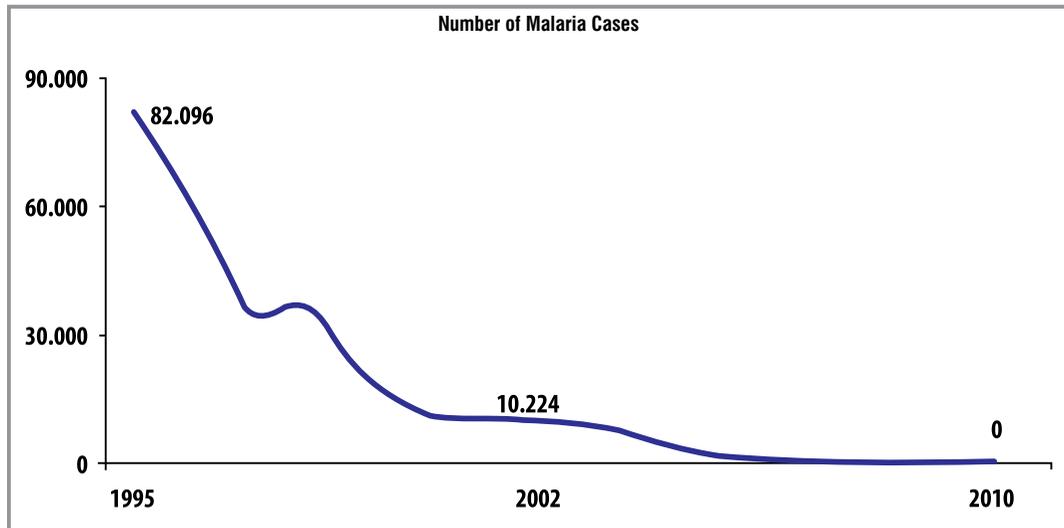


Graph 75

Measles has not been observed in Turkey since 2008.

We are waiting for the other countries in order to eliminate measles in Europe.

6. Malaria

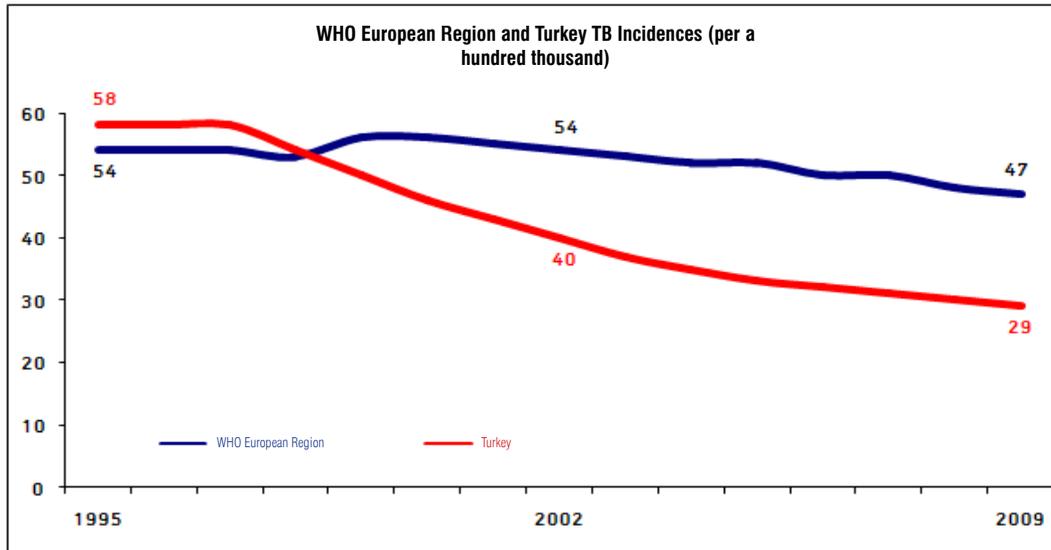


Graph 76

We reduced the number of malaria cases, estimated to be at 10 thousands in 2002, to zero by December 31, 2010 as a result of the serious efforts we conducted.

We are in the elimination period for malaria.

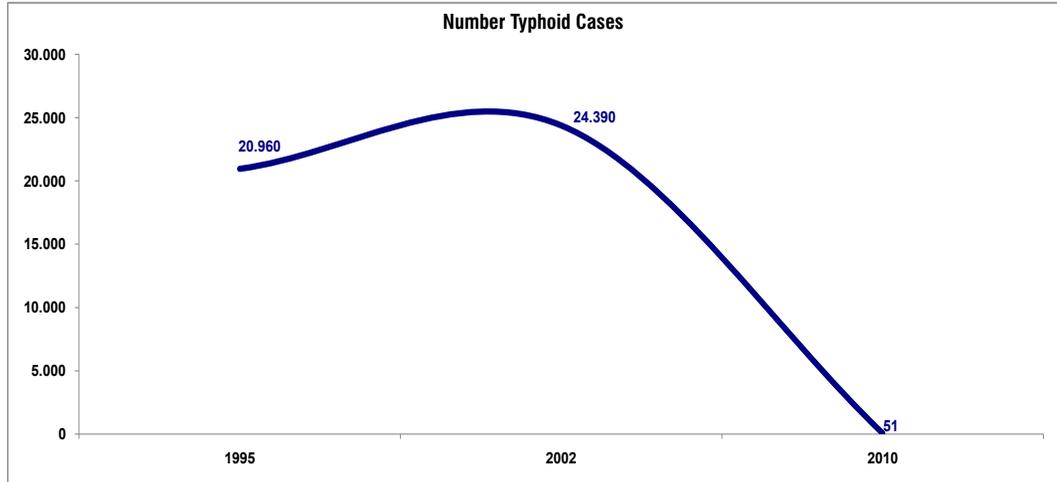
7. Tuberculosis



Graph 77

The incidence of tuberculosis, which was 40 per a hundred thousand in 2002, was decreased to 29 in 2009. We have a better graphic than the average in WHO European Region.

8. Typhoid

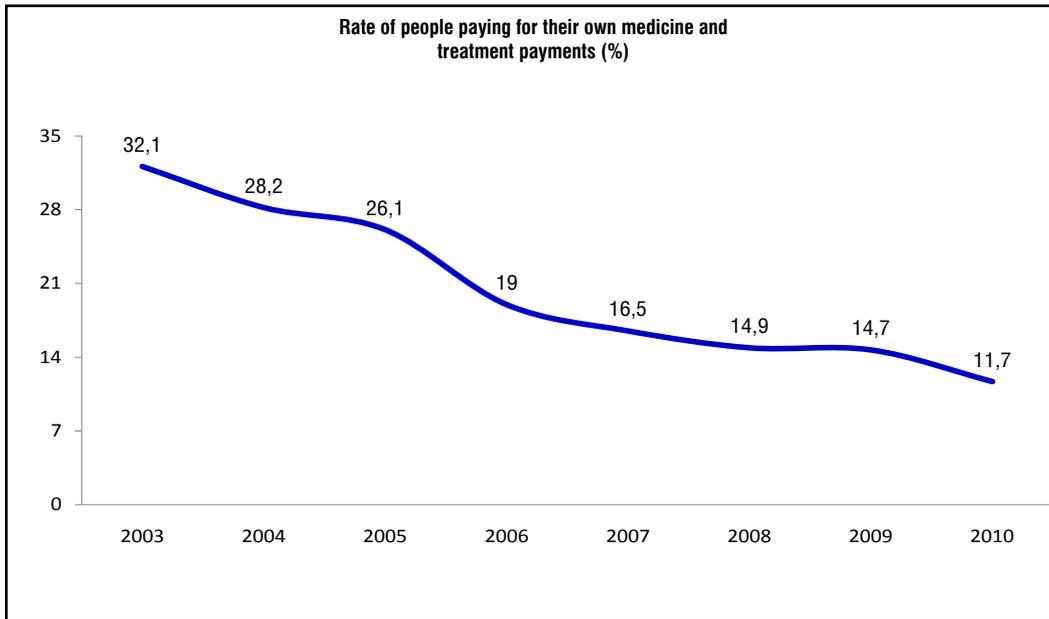


Graph 78

In order to achieve this, we cooperated with the MoEF, municipalities and special provincial administrations and gained significant improvements in microbiological safety of drinking waters. On the other hand, completion of infrastructure for drinking waters and roads in villages via KÖYDES project is another factor contributing to this success.

B. Protecting People from Financial Risks

Payment of Medicine and Treatment Costs



Graph 79

Source: TURKSTAT "Life Satisfaction Research 2010"

We provide emergency and intensive care treatment free-of-charge in public and private hospitals. Additionally we abolished extra charges applies for burn injuries, cancer treatment, newborns, organ transplantations, congenital anomalies, dialyses and CVS procedures in private hospitals. Thus we took access to health care services under protection.

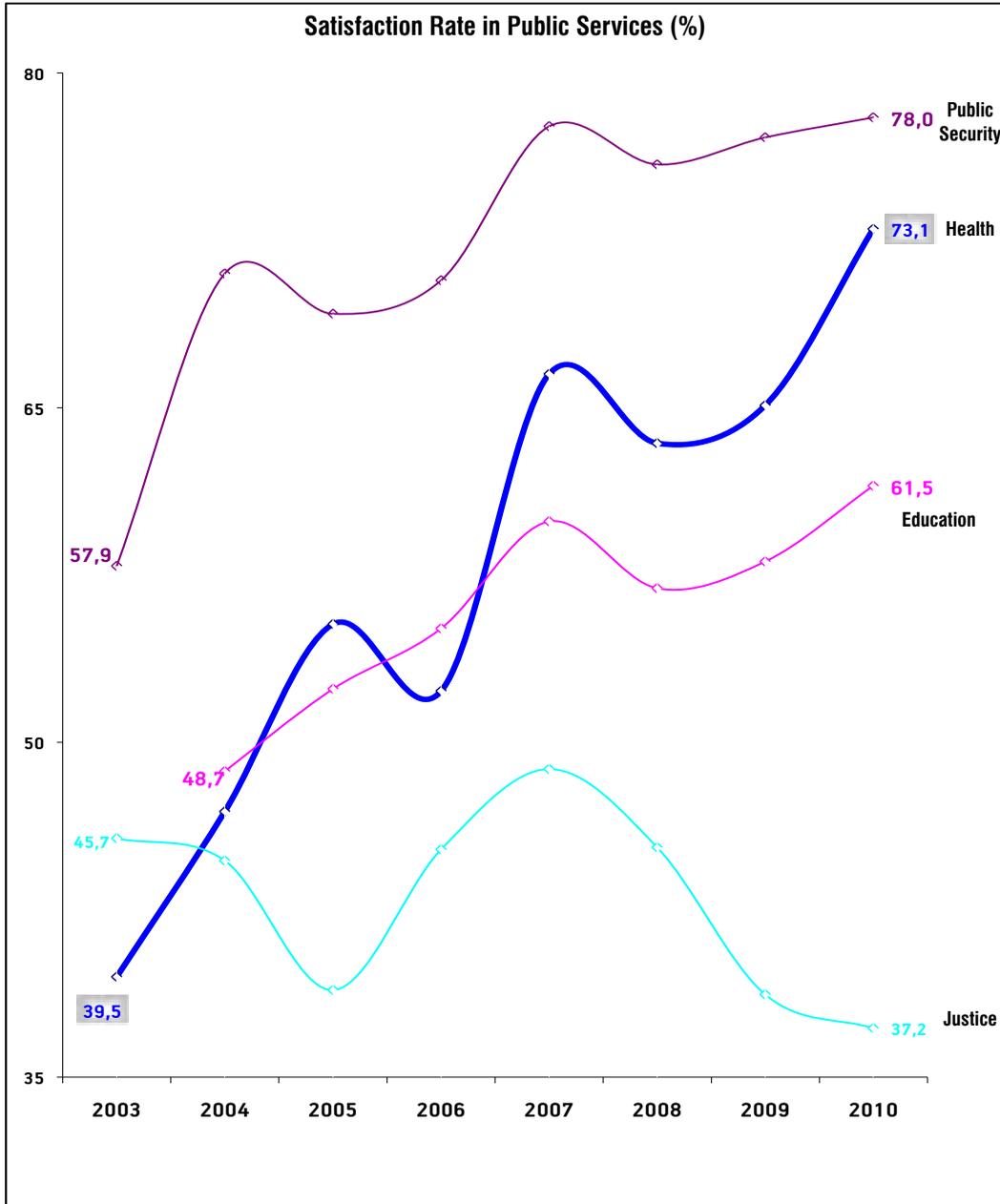


OECD Health Systems Review Report 2008 TURKEY
(page 65):

“Nevertheless, based on the overall information available from the latest national health accounts and Household Budget Surveys, it appears that the Turkish health system performs quite well in terms of equity and financial protection, both in absolute terms and relative to other countries.”

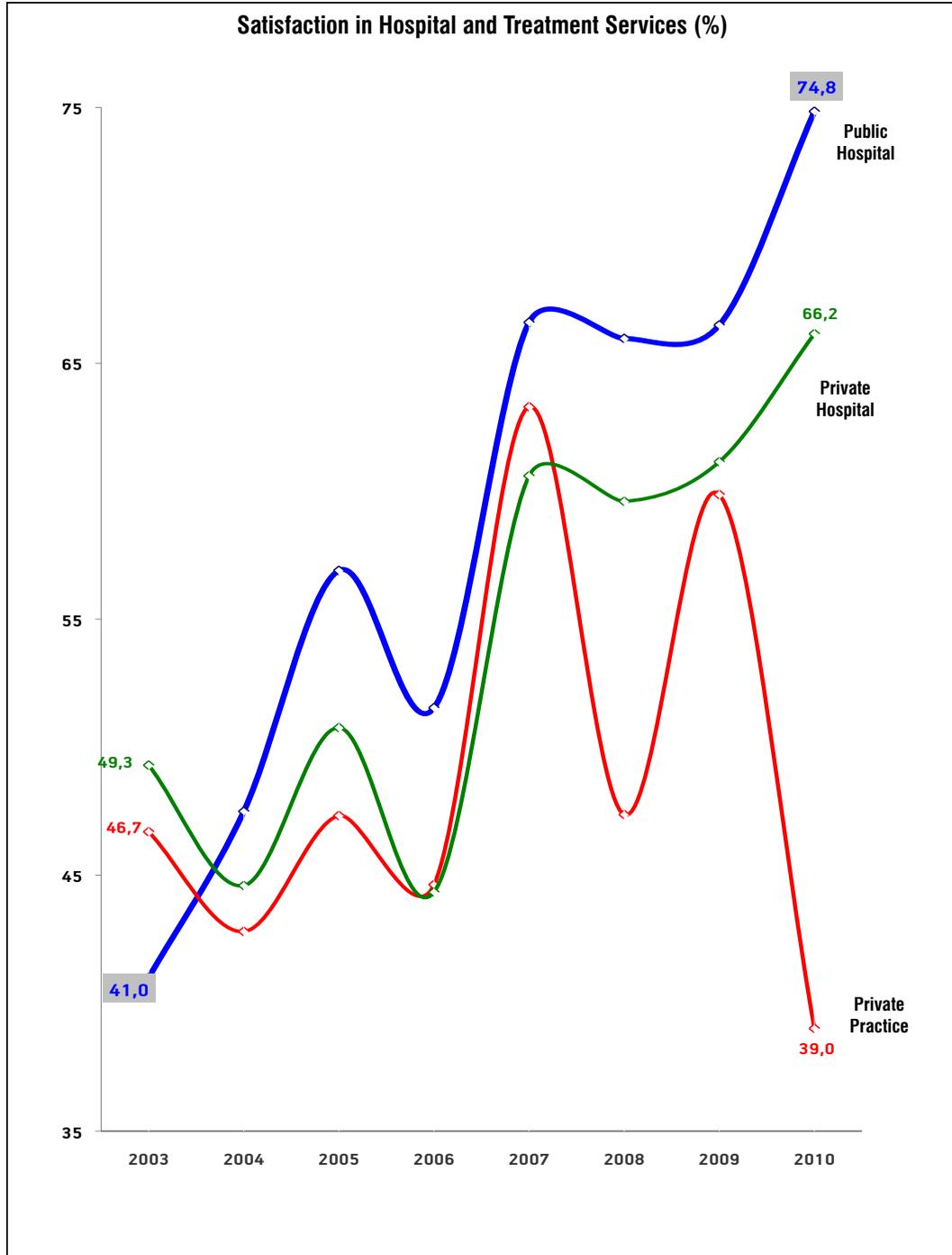
C. Satisfaction with Health Care Services

According to the life satisfaction research conducted by the TURKSTAT, satisfaction rate for health care services was 39.5% in 2003. This rate increased by 33.6 points and reached to 73.1% in 2010.



Graph 80
Source: TURKSTAT

According to a research conducted by TURKSTAT in 2003, satisfaction rate from public hospitals increased by 33.8 points and reached to 74.8% in 2010. In same time period satisfaction from private practices reduced to 39% from 46.7%.



Source: TURKSTAT, 2010
Graph 81

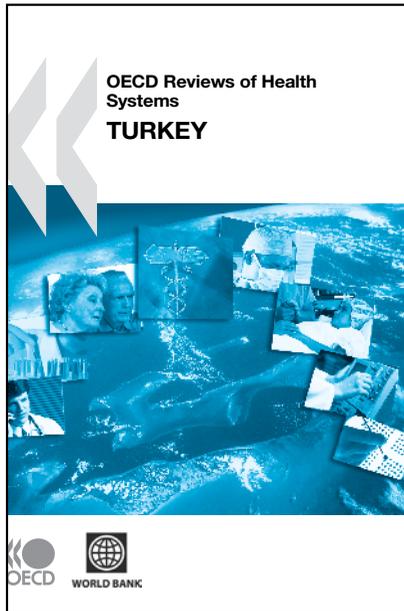


“Health system reform is a continuing process. In the first phase of the implementation, Turkey is observed to be one of the several middle income countries which have been able to put this paramount reform in effect.

The Health Transformation Program not only reflects that Turkey made a significant progress in social welfare system but also has set a good example for other countries struggling against the same problems as well.”

2. International Reflections of the Health Transformation Program (HTP)

A. Reports



1. OECD Reviews of Health Systems, Turkey

OECD Health System Reviews, Turkey

Publication Year: 2008

Publication institution: OECD, World Bank

Authors: Jeremy Hurst, Peter Scherer, Sarbani Chakraborty, George Schieber

This analysis applied for the Turkish Health System was conducted conjointly by OECD/World Bank. At the end of the 5th year of the Health Transformation Program, it was carried out on demand of the MoH of Turkey in order to review the reform process by international institutions.

Analysis of Turkish Health System starts mentioning about the main features of the system before the implementation of the Health Transformation

Program (HTP) in 2003. Then it tells about the main reforms implemented under the scope of HTP. This is followed the assessment of basic health policy in terms of its targets such as the performance of the system, access and equality, improvement of health, responsiveness to users, money's worth and financial sustainability.

The analysis evaluates the recent reforms implemented along with the transition to Universal Health Insurance (UHI) and possible effects of such transition. The report finally refers to the points where additional policies might be needed in order to strengthen the system.

The determinations included in the report on the assessment of Health Transition Program in 2008 with regard to how HTP will be concluded between 2009 and 2013 are as follows:

Up-to Date Assessments of the HTP

The assessments of the HTP which follow, are made against the background of the three main goals of health policy:

- maximising health outcomes and responsiveness to consumers,
- minimising costs, subject to attainment of these outcomes,
- pursuing equity both in terms of financial protection against unpredictable catastrophic medical care costs, and in terms of access to health services.

In many ways, the content of the HTP appears to represent a “textbook” set of reforms for a health system of the type found in Turkey prior to 2003, building on the strengths of the system, yet targeting the weaknesses. That system (like those in many other middle-income and some OECD countries) displayed excessive fragmentation and incomplete health insurance coverage; focused on costly curative hospital-based care; had limited availability of new technologies; encouraged dual physician practice arrangements resulting in significant informal payments and out-of-pocket costs; had limited incentives for efficiency; contained serious inequities in access to care for the poor, near poor, and those in rural areas; and often provided poor-quality care. The HTP/UHI reforms represent a comprehensive blueprint to tackle the main weaknesses of the system.

They also seem to have been designed to build on the strengths of the system, such as the institution of a Green Card scheme for the poor in the previous decade, public services of a reasonable underlying quality in many parts of Turkey, a vibrant private sector, upward momentum in levels of health status in the population and a government and a Ministry of Health committed to providing access to quality services to the entire population, but especially to the poor and other underserved groups.

The steps taken to implement the HTP appear to have made significant improvements to the performance of the system. On the health insurance side, Green Card coverage was extended to include outpatient services and outpatient prescription drugs in 2005, and SSK enrollees were given access to all hospitals and to private pharmacies in 2004. These changes were associated with a 7.5% increase in Green Card enrollees and a nearly 33% increase in SSK enrollees between 2003 and 2007. They were also associated with sharp increases in both access to hospitals and per capita spending on pharmaceuticals for these groups. The latter was offset to some extent by reductions in pharmaceutical prices. As discussed in the previous chapter, the level of health spending overall, but particularly the public share, increased significantly over much of this period, while out-of-pocket payments for consumers fell. Fortunately, the Government of Turkey was able to accommodate these increases due to Turkey’s strong economic growth over this period.

Indeed, both the SSI and the MoH have taken the view that by 2008, most Turkish citizens with significant needs for health care are enjoying reasonable access to services. That is because there are no eligibility barriers to primary care and to emergency hospital care. Moreover, partly because there has been adverse selection in enrolment into Bağ-Kur and the Green Card schemes, in addition to some casual or fraudulent use of insurance cards by non-eligibles, most of the population with significant needs has been accessing government-financed health services, even though “formal” enrolment information suggests uncovered groups to be between 10 to 15% of the population.

Meanwhile, the introduction of the performance management system in MoH facilities – which from February 2005 included the former SSK hospitals – together with improvements in consulting facilities, appear to have been associated with a rise in full-time working of specialists in the public sector and a significant rise in hospital activity. The most recent Ministry of Health information suggests that the number of full-time physicians in MoH facilities has increased from 11% in 2003 to 73% in 2008. Considerable outsourcing of support services has been developed in MoH hospitals, and many staff, especially nurses, are now on short-term contracts rather than on civil service appointments.

The new family practice system has been implemented in 23 provinces as of August 2008 and will cover 59 provinces by late 2009. Some 20% of the population had been assigned to family practitioners as their source for basic primary care, a level of coverage that MOH plans to increase to 50% by the first quarter of 2009. Several evaluations of pilot projects are underway, with some preliminary results available on certain outcomes. For example, patient satisfaction has increased in provinces that have implemented the family practice system. Visits to primary health-care facilities have increased by 27% in provinces with the new system compared with 23% in provinces without it. This has been accompanied by a 1% decrease in the number of visits to secondary care facilities in provinces with the family practice system, compared with a 16% increase in hospital visits in other provinces. Hospitals accounted for 58% of all visits before implementation of the family practice system compared with 41% after. Despite suspension of the referral system penalties, provinces which are implementing family medicine had 51% of their visits in primary care and 49% in secondary care in 2008, and the Ministry of Health expects the primary care percentage to increase to 60% when the new copayment rules are put into effect. Based on these preliminary evaluations, it appears that the system has shifted utilisation toward primary care and away from secondary care and increased patient satisfaction (Department of Family Medicine; Akdağ, 2008). The effects of the new system on outcomes await the results of the full scale evaluations now in progress. These changes were backed up on the supply side with improvements in the distribution of doctors across geographical areas in Turkey.

On the supply side, the changes outlined above appear to have represented improvements in capacity and productivity – although it is arguable that too much of the expansion of ambulatory services was in the “wrong” place – i.e. in hospital outpatient departments. In particular, consultations per physician rose steeply following the introduction of the performance management system and the shift towards full-time working. Thus, improvements in coverage were matched both by rising activity and by the equity-enhancing redistribution of capacity in primary and secondary care. Given that there was almost certainly unmet need in Turkey prior to the reforms, their effect is likely to have been improved access and equity, at least for the groups which had formerly faced barriers to access. Had the improvements in capacity and productivity not taken place, the rising demand for care might have been left unsatisfied because of constraints on human resources and on facilities.

In its early years, the HTP appears to have remained affordable: the increase in health expenditure has been in line with GDP growth. The costs of improvements in access and staff remuneration appear to have been offset, at least partially, by improvements in productivity and reductions in pharmaceutical prices. Public spending on health care rose on average by about 7% per annum between 2003 and 2006 having risen at 10% per annum between 1999 and 2004. The share of total health spending in GDP remained virtually constant between 2003 and 2006 due to strong economic growth whereas it had risen by nearly a percentage point between 1999 and 2003.

Completing HTP, 2009-2013

The Health Transformation Programme is far from complete in 2008 due to: controversy over the reforms in Parliament and the courts, leading to legislative delays; difficult policy choices, such as on extra billing by private providers and setting budget caps; and the inevitable lags involved in setting up incentive-payment schemes such as DRGs, increasing the capacity of SSI to pay the large numbers of new claims, and training new staff and retraining existing staff.

On the funding side, the parts of the Social Security Bill which dealt with UHI passed Parliament only in April 2008. The Green Card scheme has not yet been fully integrated into the SSI – although plans are in place to integrate it by 2009. Many Turkish citizens, above the level of income defined for Green Card eligibility, work in the informal sector and many do not appear to be registered for or contributing to health insurance. New procedures for means-testing by SSI for both Green Card eligibles and those formerly uninsured are not yet in place. Decisions about co-payment rates await secondary legislation following passage of the UHI bill, although it is envisaged that there will be higher co-payment rates for inappropriate self-referral behaviour including hospital out-patient consultations which are initiated without a referral from a family practitioner. Critical issues concerning the referral system are otherwise still in abeyance – awaiting completion of the Family Practitioner system (i.e., according to the MoH this means 30 000 new family practice physicians trained and in practice). Similarly, decisions about extra billing ceilings in private hospitals await implementation of new draft rules limiting extra-billing to 30%. In addition, while the UHI Law states that SSI will implement the Global Budgets with state health-care institutions (MoH and university), it is unclear how SSI will deal with private health-care facilities,. This is critical since spending on private health-care facilities is the fastest-growing component of SSI expenditures, and is likely to generate a deficit for SSI in 2008.

On the delivery side, as discussed above, the family practitioner services have been rolled out in only 23 of Turkey's 81 provinces. Public hospitals have not yet achieved significant autonomy and the purchaser–provider split is not yet fully operational for MoH hospitals. Also, capacity constraints have increased among doctors and nurses, exacerbated by the increased demand from enhanced coverage and a buoyant private, health-care sector in some parts of Turkey. The government has announced that it is planning to increase medical school intake from about 4 500 students per annum to about 6 000 per annum. It has also published new planning regulations, early in 2008, setting standards for new private hospitals and outpatient diagnosis and treatment centres in order to rationalise joint public and private sector capacity.

The new payment system envisaged in the HTP – to have money follow patients according to DRGs – is not yet operational. The Ministry of Health is still deciding the budgets and monthly payments for MoH hospitals, including the revolving-fund revenues which flow from SSI to MoH hospitals. SSI funds are disbursed to MoH hospitals monthly, based on MoH decisions, rather than in accordance with bills submitted for services rendered. In addition, the Ministry is still paying part of the salaries of hospital staff in public hospitals and the funds required for primary care and public health services, including the new family practitioner projects. The introduction of DRGs for hospital care is still at a design stage, albeit ready to be tested – with exploratory projects in 47 hospitals. Hospital performance standards have increased hospital activity; yet, the incentives in the Performance-based Supplementary Payment System (see Box 2.1 above) need to be implemented in line with those in the proposed DRG system, and complement those implicit in the budget caps for public hospitals in order to improve, simultaneously, physician and institutional productivity, enhance allocative and technical efficiency, and assure macro efficiency by controlling overall costs by discouraging the provision of unnecessary services.

Finally, the changes in governance envisaged by the HTP are far from complete. The SSI has not yet acquired the capacity to process all claims adequately or to design and implement innovative incentive-based payment systems. The Ministry of Health is still deeply involved in budgeting for and providing primary and secondary services rather than assuming a steering/stewardship role.

Thus, there are still a large number of key policy decisions awaiting final specification and some of these will take many years (e.g. increasing the supply of physicians). These ultimately will determine the effectiveness, affordability and sustainability of UHI in improving health outcomes, financial protection, and consumer responsiveness for the Turkish population. The key implementation decision areas for completion of the HTP are discussed in what follows.

Exerts from the report:

“While many factors are responsible for these improvements in health status in Turkey, it seems to be plausible to argue that a significant part has been due to higher and more effective spending on health care in recent decades.” Page 13

“The Health Transformation Programme in many ways reflects “good practice” in the development and implementation of a major health sector reform including the introduction of UHI. Strong government commitment and leadership along with major financing reforms have been complemented by carefully planned service delivery reforms. While it is too early to evaluate the impacts of the HTP on all aspects of health status, financial protection, and consumer satisfaction, the preliminary indications from the available data suggest important progress in all three areas. Turkey is closing the performance gap with other OECD countries and, on a number of measures including overall costs, performs well relative to other comparable upper middle-income countries. Indeed, there may be much that other countries can learn from the recent health reforms in Turkey, especially in the use of performance-related pay to raise staff productivity.”
Page 14

“Nevertheless, based on the overall information available from the latest national health accounts and Household Budget Surveys, it appears that the Turkish health system performs quite well in terms of equity and financial protection, both in absolute terms and relative to other countries. The OOP share is relatively low and the incidence of OOP is progressive, falling disproportionately on the rich. The level of impoverishment due to catastrophic medical expenses is also low.” Page 65

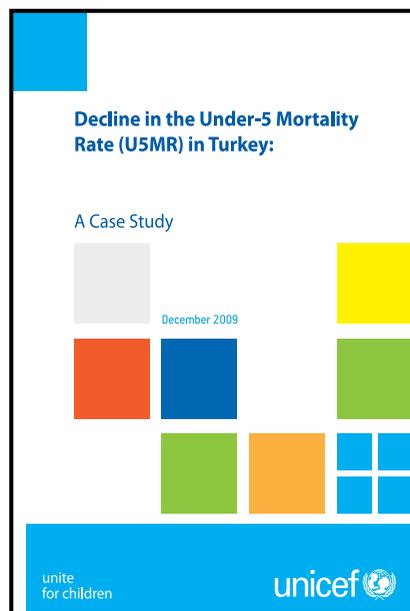
“Since the introduction of performance-related pay, there seem to have been large increases both in the volume of activity and in physician productivity in Turkey, judging by reported consultations per physician (headcount). By 2006, reported consultations per physician had reached levels which exceeded the average level in the OECD by over 25%. There may be lessons for other OECD countries to learn from Turkey’s apparent success with using performance-related pay to raise doctor’s productivity – although the effect on health outcomes is not yet clear and more rigorous evaluations are still in progress..” Page 84

“Health system reform is a perpetual process. At this early stage in its implementation, Turkey appears to be one of the few middle-income countries to be implementing a “big bang” reform effectively. The HTP represents both an important improvement in Turkey’s social welfare system and a “good practice” example for other countries struggling with the same issues. Yet the ultimate success of the program, including its sustainability, will very much depend on the difficult policy and implementation decisions that the Turkish authorities are still in the process of addressing. International experience suggests that the right choice of policies and their effective implementation will be required to ensure the financial sustainability of the health system in the long-term and continuing improvement in the health status and well-being of the Turkish people.” Page 124

Summary of key suggestions:

- Maintain a hard cap on total public spending on health care by the SSI
- Implement co-payments for visits to hospital outpatient departments without a referral
- Pursue further reductions in pharmaceutical prices and implement rational drug prescribing
- Control entry to the medical profession in the medium to long term after the expansion in physician supply, needed currently
- Continue with implementation of the HTP in the next five years
 - Continue to roll out family practitioner services
 - Continue to develop and co-ordinate community public health services alongside the family medicine service
 - Complete transfer of purchasing of hospital and primary health-care services to the SSI when management capacity is appropriate
 - Complete the DRG and bundled outpatient payment systems and develop new systems to transfer risk to providers based on managed care principles
 - Reform the performance management system to support DRG payment and to put more emphasis on efficiency and cost effectiveness
 - Continue with granting more autonomy to hospitals with appropriate management capacity
 - Invest in stronger IT systems and data for decision making
 - Develop capacity to undertake health technology assessment and to evaluate and monitor health reforms
 - Enhance the number and role of nurses in Turkey
- Take action on the supply side to support the new health system in improving geographical equity in access (possibly informed by weighted capitation targets for regions)
- Increase registration with, and payment of, contributions to UHI and carefully monitor solvency
- Address wider public health issues across Ministries
- Continue to develop the stewardship capacity of the Ministry of Health

2. Decline in the Under-5 Mortality Rate (u5mr) in Turkey: A Case Study



Decline in the Under 5 Mortality Rate (U5MR) in Turkey: A case study

Publication year: 2010

Publication institution: UNICEF

Authors: Dr Lilia Jelamschi, Prof. Dr. Timothy De Ver Dye,

The purpose of this report is to present a description and analysis of U5MR mortality decline in Turkey, with a particular focus on policy, programmatic, and epidemiological changes observed since 1990 that may help explain Turkey's rapid progress toward reducing U5MR, and indeed underscoring Turkey's experience in achieving the Millennium Development Goal 4 (to reduce by two-thirds between 1990 and 2015 the under-five mortality rate). Further, this report provides interpretation of

trends in Turkey and summarizes the Turkish experience in improving maternal and child health status.

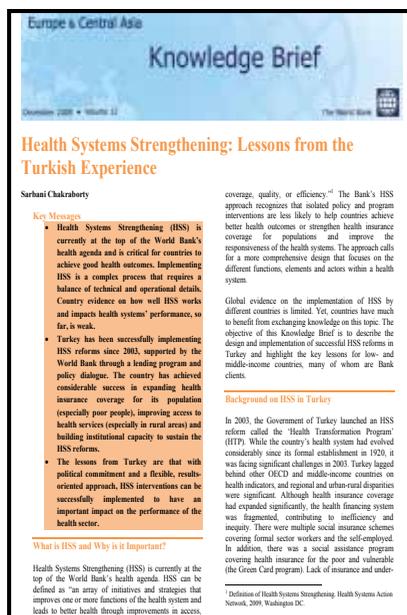
Several notable points from this assessment include:

- Turkey has observed a rapid decline in the Under-5 Mortality Rate (U5MR) since 1990, largely due to the rapid decline in both components (neonatal and post-neonatal) of the infant mortality rate. Since both components of the infant mortality rate declined significantly, these declines were likely systemically-induced, the result of broad comprehensive improvements in the public health and health services systems in Turkey.
- This decline occurred in the context of a similarly rapid population shift from rural to urban areas, a corresponding large increase in GDP/capita, decreased family size, and increased education achievement for women.
- Sustained focus on health strategy and planning, and implementation of widespread, effective public health campaigns namely focused around family planning, vaccination, child survival, and neonatal resuscitation have contributed significantly to the decline in the IMR and subsequently in the U5MR.
- The resulting strengthening of components of maternal and child health systems in Turkey – namely, a rapid increase in antenatal care attendance, large increases in the proportion of women delivering in health institutions and in the proportion of women whose deliveries were attended by health providers, and the rapid development of neonatal intensive care, all directly contributed to increased survival of newborns and children.

- Despite these achievements, some populations remain at elevated risk for infant and under-5 mortality, namely: residents of the Eastern region, in rural areas, with no/ incomplete primary education, in the lowest quintile of wealth, and for infants born to women who already have several other children (higher birth order). There has been an impressive expansion of public health programs and strengthened health systems in Turkey; though a gap remains in health disparities between high- and low-risk groups, this gap is narrowing.
- While exhibiting a precipitous decline, the infant mortality rate in Turkey could decrease further with attention to the major causes of infant death, which are largely preventable with scale-up of and access to existing technology and intervention: low birthweight/ prematurity, congenital anomalies, and sepsis, among others.
- As a result of Turkey's investments in public health programs and health systems, in the context of a generally stronger socioeconomic status of its population, the U5MR decline since 1990 is one of the highest in the world, likely a decline of more than 70 percent from 1990 to 2007. The Turkey Demographic and Health Survey (TDHS) is an invaluable resource in assessing risk, progress, and opportunities; a population-based perinatal data system would enhance the utility of TDHS and provide more real-time monitoring, evaluation, and research opportunities for targeting further declines in U5MR.

3. Health Systems Strengthening: Lessons from the Turkish Experience, 2009

Health Systems Strengthening: Lessons from the Turkish Experience, 2009



Publication Year: 2009

Publication institution: World Bank

Authors: Sarbani Chakraborty

“Health Systems Strengthening: Lessons from the Turkish Experience” is included on the 12th issue of the document named “Knowledge Brief” of the World Bank.

Key messages:

- Health Systems Strengthening (HSS) is currently at the top of the World Bank's health agenda and is critical for countries to achieve good health outcomes. Implementing HSS is a complex process that requires a balance of technical and operational details. Country evidence on how well HSS Works and impacts health systems' performance, so far, is

weak.

- Turkey has been successfully implementing HSS reforms since 2003, supported by the World Bank through a lending program and policy dialogue. The country has achieved considerable success in expanding health insurance coverage for its population (especially poor people), improving access to health services (especially in rural areas) and building institutional capacity to sustain the HSS reforms.
- The lessons from Turkey are that with political commitment and a flexible, results-oriented approach, HSS interventions can be successfully implemented to have an important impact on the performance of the health sector.

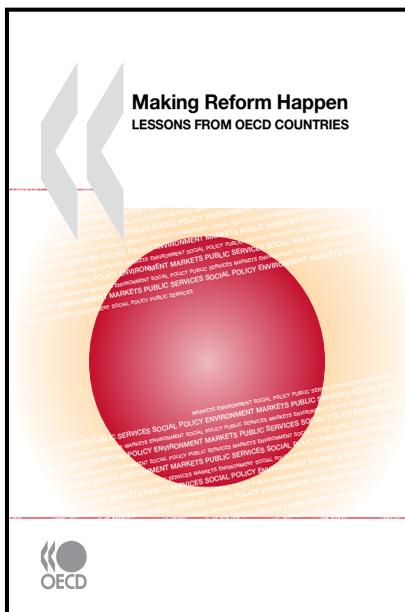
Key Lessons Learned

- By defining a comprehensive HSS reform program and getting the buy-in of key stakeholders early on, the GoT was able to set the stage for major reforms in Turkey. Nevertheless, comprehensive HSS reforms take time and the Turkey experience shows that in operationalizing such a strategy, a flexible and results-oriented approach works best.

While pushing for fundamental legal and institutional changes in how health services are financed, delivered and regulated in Turkey, the GoT identified a few critical incremental reforms that could be implemented without major legal changes. Nevertheless, these changes were extremely effective for delivering better health services to the population, especially to poor people. This helped build support for the reforms and credibility for the Government. Balancing the need for ‘big bang’ HSS reforms with an incremental approach is the reality in most countries, and much can be learned from Turkey on how to balance the two approaches.

- Hospital autonomy or privatization of public hospitals is one of the most politically contentious reforms in many countries. Therefore, it is no surprise that countries make little progress on this important HSS reform. Yet, without public hospital reform, a major element of HSS remains unfinished—this impacts the achievement of quality, efficiency and equity goals. The Turkey experience shows that it is possible to implement incremental changes that have a major and immediate impact on service delivery (especially for the poor), while keeping a longer-term horizon on public hospital reform.

4. Making Reform Happen Lessons from OECD Countries



Date of Publication: 2010

Publishing Institution: OECD

Authors: Jeremy Hurst (Chapter 7)

This report mentions the reform studies, which have been or is being conducted by OECD member countries on financial consolidation, taxing, environment, employment, health, training, public administration, competition in nine chapters. The main purpose of the report is to share the experiences of the countries, transfer opinions and compare implementations. Therefore, the opinions of the experienced countries are expected to light the way for countries which embark upon such large-scale structural reforms.

The seventh chapter of the report refers to the health reforms under the title “Effective ways to realise policy reforms in health systems”. The factors that help, facilitate or hinder health system reforms in OECD countries are described. In this respect, health reform experiences of 5 countries including Turkey are mentioned.

This chapter consists of two parts. The first part focuses on the reform requirement of the health system. Here, a general framework is introduced including the factors that determine the success and failure of reform implementations. The factors of the health system reforms that are under the control of the administration and the governments and that will be activated or deactivated during the reform studies are defined.

The reform studies from five different OECD countries are evaluated in the second chapter as examples of reform studies. This evaluation is made based on OECD Health System Assessment Reports (Finland, Korea, Mexico, Sweden and Turkey).

The chapter including health reforms in Turkey is as follows:

Turkey: Increasing Quality and Efficiency

The Turkish health system has been undergoing a profound structural transformation since 2003. Prior to 2003, the system was a combination of a number of social health insurance schemes for different segments of the employed population and their dependents: different insurance programmes providing health service under different coverages. Social assistance programme for the poor (the Green Card) has been in practice. There were both overlaps and gaps in these arrangements. Moreover, there were serious problems on the delivery side, which meant that even insured people did not always get access to appropriate services. For example, primary care was generally weak, leading to over-utilisation of crowded hospital outpatient departments. There was also considerable geographical inequity in access to health services. Although health status had been improving in Turkey prior to 2003, life expectancy remained below and infant mortality above the levels found, on average, in countries with a comparable standard of living. Only limited data on outcomes are available but comparisons of patient satisfaction with primary health-care services across countries, suggest that satisfaction in Turkey was well below the average in a group of ten European countries.

The “Health Transformation Programme” sought to address both efficiency and quality of care

A major set of reforms, the “Health Transformation Programme” (HTP) was introduced by the newly-elected Justice and Development government in 2003. The main aims were to unify the existing social insurance schemes and administration of the Green Card under a single insurer, which would provide universal health insurance. A purchaser/provider split would be established and autonomy would be granted to public hospitals. A family practitioner service with capitation payments and gate-keeping would be set up throughout Turkey. There would be investment in staff and in information systems.

It was planned that the HTP would be implemented during the decade 2003-2013. Although Turkey has a relatively centralised administration, this reform required cooperation across several different ministries with responsibilities in the health sector including the ministries of health, labour and social security, and finance, together with the State Planning Organisation. Many of these measures were under consideration well before 2003, but a major economic crisis in 2000-2001 helped to delay action. It required the election of the Justice and Development Party in 2002 with a strong electoral mandate and the renewal of that mandate in 2007, to kick start and sustain the political momentum for reform.

When an OECD/World Bank team reviewed the Turkish health care system and its reforms in 2008, the HTP was half completed. Universal Health Insurance was achieved in 2008 with the unification of the social security programmes with the Green Card scheme under the Social Security Institute. The new family practitioner services had been rolled out to about 20% of the population. Public hospitals had been unified under the Ministry of Health and a performance-management scheme had been introduced to incentivise staff.

The beginnings of a purchaser/provider split had been put in place although public hospitals had not yet gained significant autonomy. As a result of these and other related changes, there has been a large increase in activity, both in primary care and in hospitals. Satisfaction with primary care has risen sharply in provinces which have introduced family practitioners. Also, there was a general rise in satisfaction with the health system as a whole in the population. Although health expenditure has risen sharply, it has risen no faster than GDP. The OECD/World Bank Review concluded that, although it was too early to make a final assessment, the HTP seemed to represent “good practice” in the development and implementation of major health system reforms and preliminary indications were that it had been successful.

The Turkish experience exemplifies many of the political economy lessons identified in this chapter

Many of the conditions for successful health system reform, which were outlined in the first part of this chapter, seem to have been present in Turkey at the launch of the HTP and during the first stage of its implementation.

- Turkey had informed itself about weaknesses in the performance of the Turkish health system by international comparisons provided (for example, by OECD and WHO data).
- Reforms of the kind adopted under the HTP, had been put forward under the National Health Policy in 1990, following health-reform studies by the Ministry of Health and the State Planning Organisation, and these had been articulated further in the Seventh Development Plan, 1996-2000. In particular, studies had been carried out of family practitioner services in a number of European countries.
- Strong leadership was shown by the new health minister.
- Because of the controversial nature, complexity and likely cost of the proposed reforms, a long period – ten years – was set for steering the reforms through the legislative process and for implementing the results.

The reform plans also took due account of the need to motivate public sector providers to support reform.

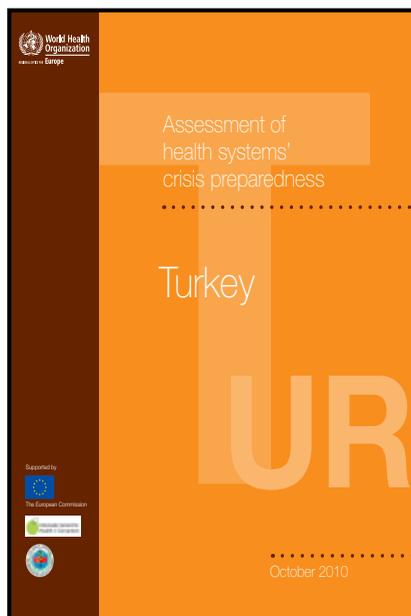
- Under the HTP, there were major reforms to the incentives facing medical specialists and other hospital staff in public hospitals with the introduction of bonus payments under the “performance-based, supplementary payment system”. This linked pay to improved performance by staff. As a result, there were sharp increases in pay rates for doctors between 2003 and 2005; an increase in full-time working by previously part-time specialists in public hospitals; increases in hospital activity rates; apparent increases in productivity per physician; and large improvements in the satisfaction reported by patients with hospital services.

The introduction of family-practitioner services gave primary care doctors greater pay and autonomy, and was associated with a relative shift in consultations away from hospital outpatient departments towards family practitioners and a sharp increase in patient satisfaction with primary care. Meanwhile, strong economic growth in Turkey between 2002 and 2006 helped to fund the extensions to health insurance coverage, the improvements to incentives and the increases in services.

In the following parts of the report, under the title “**What do the case studies tell us?**” a synthesis has been made. Here, the following evaluations are included in brief:

- Several of the case studies – especially those for Korea, Mexico and Turkey – appear to illustrate occasions when newly elected administrations with strong leadership and strong popular mandates seized political “windows of opportunity” to make structural reforms to health systems.
- In Turkey, significant prospective increases in doctors’ pay, combined with new performance incentives, helped to ensure that many individual doctors co-operated enthusiastically with the reforms, despite vociferous opposition from the Turkish Medical Association.

5. Assessment of Health Systems' Crisis Preparedness, Turkey



Date of Publication: 2011

Publishing Institution: WHO

Authors: WHO European Region, European Commission Directorate-General for Health and Consumers, Related Experts from the MoH of Turkey

This report evaluates the level of preparedness of the Turkish health system to deal with crises and the current regulations for dealing with crises, regardless of cause. The report also examines the risk prevention and mitigation initiatives in the country. While the main focus is on the national level, some attention has been paid to crisis management capacity at the regional level and to the links between the various levels of government.

The evaluations included in the conclusion part of the report are as follows:

Turkey has based its disaster and emergency management system on lessons learnt, especially from the devastating earthquakes, which occurred in 1999 and has made quite a dramatic improvement in its management and coordination structure though the country is still in the transition period of institutionalizing the most recent changes. The “new system” has, fortunately, not yet been tested at the national level.

Turkey has a high level of political commitment to crisis preparedness and the proven capacity to respond to national and international disasters. The emergency response system has a strong legal framework; it is adequately staffed and well equipped. Regulations and detailed instructions at the national and regional levels define the coordination bodies, the designation of authority and the contingency requirements. Dedicated emergency and contingency funds are available at each administrative level. Resources for response and the surge capacity of the health facilities and the EMS system are available at all levels (national, provincial and local).

Hospital capacity is huge in terms of number of beds, availability of trained staff, and accessibility to equipment, contingency supplies and modern medical technology. The EMS is well resourced with staff, ambulances (many with full resuscitation capacity), contingency, dispatch centres, etc. Preparedness activities are ongoing; these include community and staff training, as well as exercises and drills carried out jointly by different institutions. Every hospital is required to have a dedicated focal point for emergency preparedness, as well as an emergency response plan.

Health promotion activities at the community level include emergency response and awareness-raising. A strategy for risk communication and public information during emergency situations exists.

The Ministry of Health could address a few issues, such as strengthening the capacity to assess the non-structural and functional vulnerability of critical health facilities and to introduce rapid health needs' assessments as a key management issue for relevant decision-making in the first 24 hours of an event. This would be part of a full-scale emergency preparedness programme.

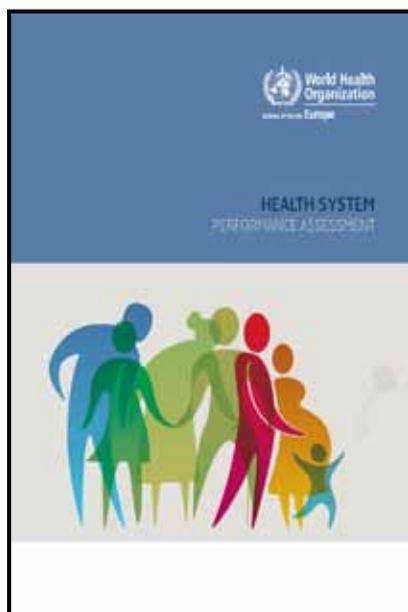
Within the context of the global economic slowdown, it might be expected that the Ministry of Health of Turkey could face challenges in securing the necessary funds to sustain its highly sophisticated disaster and emergency management system. However, the economic indicators for Turkey show that, although health expenditure has risen rapidly since 2003, increases in both total and public health expenditure have remained affordable, attributable seemingly to an equally rapid economic growth in the country. (24) In addition, these increases in expenditure have been parallel since 2003 (25).

Because of Turkey's unique position, with its broad experience in disaster situations and its advanced disaster and emergency management system, the country could play a leading role in training and research related to disaster risk reduction at global level.

The findings and recommendations outlined in this report could be used to identify priority areas for further joint Ministry of Health–WHO projects and activities. In this context, the Ministry of Health may wish WHO to facilitate the implementation of the IHR core capacities by introducing the Hospital safety index: guide for evaluators (24) for use in assessing the non-structural and functional safety of hospitals. As the given scenarios of a major earthquake include mass fatality situations, WHO could also assist by organizing a national workshop on the key issues related to the management of the dead and missing in disaster situations.

From their numerous international and national operations, Turkey has amassed vast experience in delivering medical aid in disaster situations. This experience should be shared and used for joint capacity-building activities in the WHO European Region. In this connection, WHO could also contribute by sharing with the Ministry of Health its experience in developing public health and emergency management courses for national and international managers.

6. Health System Performance Assessment, Turkey



Date of Publication: 2011 (in preparation)

Publishing Institution: WHO, World Bank

Authors: WHO European Region, World Bank, Related Experts from the MoH of Turkey

In general, the primary goal of the HSPA study is to raise the current performance of the national health care system and to use limited resources to maximum effectiveness and efficiency for good health targets.

Findings:

There is a strong rationale for the Ministry of Health of Turkey to adopt a systematic approach towards HSPA. This ministry has been implementing the Health Transformation Program (HTP) aimed at improving the governance, efficiency and quality of the Turkish health sector and continued successful

implementation of this major reform programme is dependent on tracking its impact on health outcomes, outputs and structures. The Ministry of Health has identified further monitoring and evaluation (M&E) capacity building as a critical issue for phase II implementation of the HTP (2009). This has become even more important following the development of the Ministry of Health Strategic Plan for 2010–2014 and the likelihood that this ministry may be required to move to performance based budgeting within the next two years. This effort is part of ongoing reform of the public sector in Turkey that requires all sectors (particularly health) to establish five-year and annual strategic plans and budgets.

The Ministry of Health of Turkey, WHO Regional Office for Europe and the World Bank consider HSPA to be an effective tool for steering Turkey's ongoing health reforms by helping to monitor achievements and further improvements in the health system and to address prevailing challenges; ensuring effective utilization and exploitation of health data produced/collected within the system; enhancing knowledge and building capacity among all actors in the health system; and supporting and encouraging intersectoral cooperation to achieve higher level goals.

HSPA Report - Main results and policy recommendations

This section develops the “storyline”, bringing together the main findings on both the HSPA indicators and the policies implemented and across the performance dimensions.

Good health; healthy lifestyle and environment; utilization effectiveness

The Ministry of Health Strategic Plan 2010–2014 states that Turkey is “a country where all citizens enjoy a healthy and wealthy life.” There have been significant improvements in population health over the last twenty years, in particular during the eight-year period following the initiation of the HTP in 2002. However, it is unlikely that better health care alone will enable Turkey to reach its full health potential. There is strong evidence that other non-medical determinants (such as educational attainment) are major influences on health status.

Life expectancy at birth and life expectancy at age 65 are two major indicators for population health as they reveal the overall effect of risk factors, incidence and disease severity as well as the effectiveness of interventions at different levels of care. Both indicators show steady improvement since 1990 while an accelerated improvement was observed after the initiation of HTP; the former is particularly notable as health gains have been achieved mostly through decreased mortality at earlier ages, particularly under the age of five.

The National Strategic Plan for Strengthening Surveillance and Control System of Communicable Disease in Turkey (2009–2013) is now published. **The available data in this report suggest very good results on the control of communicable diseases.** There has been great progress towards the elimination of malaria, with no case fatalities in the last five years. The treatment success rate among newly detected laboratory-confirmed cases of tuberculosis (TB) increased from 73% in 2000 to 92% in 2008. An impressive pace of DOTS since 2006 resulted in universal coverage in 2008 (100%). Currently, innovative modalities of DOTS are being piloted – a combination of health services and social services in which nongovernmental organizations (NGOs) and municipalities play a significant role. The success of these provides a good illustration of how intersectoral action and collaboration between local authorities, NGOs and the Ministry of Health have contributed to better health outcomes.

Within the national immunization programme there is high coverage (both at national and provincial levels) of infants and children with vaccines including 11 antigens. This has enabled Turkey to have surpassed the average performance in the European region. There has been significant success in expanding the programme by adding four new antigens since 2006 and in decreasing inequalities by increasing the proportion of provinces having $\geq 90\%$ coverage with third dose DTP vaccines to 98% in 2009. The combined effect of the extensive measles immunization campaigns in 2003 and 2005 and routine immunization and strengthened surveillance for measles and rubella have brought the country to incidence levels close to elimination in 2009; observed cases are of foreign origin. Access to safe drinking water has been generalized in both urban and rural areas. Also, access to sewage connections in rural areas increased very substantially between 2003–2004 and 2007–2008.

Results vary depending on the sources (Household Budget Survey or Demographic Health Survey) but all suggest that about a quarter of the population in rural areas gained connection to a sewage system during this period.

However, the picture for noncommunicable diseases (NCDs) is worrying. NCDs were the main causes of mortality for around 70% of all cases in 2000. More recent studies on limited samples point to a troubling trend. Confirmation of its scope and a good understanding of the risk factors will be necessary in order to tackling this emerging problem. This will require a comprehensive approach that includes health promotion, prevention, early diagnosis and access to treatment and calls for multisectoral action.

Air pollution is one of the most severe environmental problems caused by rapid population growth and industrialization. The presence of small particles in the atmosphere continues to represent a public health threat although the trend shows a slight improvement. The decrease in the number of cities with very high measurements has resulted in less variability across the cities of Turkey but results for individual cities continue to vary over a wide range. The Ministry of Health's role in leading Health for All policies to tackle this problem through both short- and long-term actions will be strengthened by documenting pollution's impact on population health.

Recent data also demonstrate that obesity (BMI >30) among adults has increased sharply from one in five in 2000 to one in three in 2010. This is a generalized problem that represents a major public health issue in Europe and worldwide. The rate of obesity among women (4/10) is particularly alarming.

The impact of anti-tobacco measures is very well illustrated in Turkey. Indeed, the percentage of the Turkish population aged 15 years or above who smoke daily (current daily smokers) has reduced from 47% in the mid 1990s to 27.4% in 2008 and 24.7% in 2010. This represents a significant decrease, the largest in all Organisation for Economic Co-operation and Development (OECD) countries. However, Turkey continued to have the second highest smoking rate in the OECD in 2007 (and the second highest among males). Turkey became a 100% smoke-free country on 19 July 2009 – smoking is no longer permitted in indoor public places including all social dining and drinking places and public transportation. Exposure to second-hand tobacco smoke has also decreased substantially since 2008. (Turkey Global Adult Tobacco Survey-2010).

The gap between men and women decreased but remains significant in 2010.

The striking parallel between high rates of smoking in Turkey and high mortality from coronary heart disease (CHD) reinforces the importance of aggressive campaigns against tobacco consumption. CHD prevalence in Turkey is still higher than in European countries and monitoring of risk factors and implementation of multisectoral programmes is required. Easy access to health-care services and the improving quality of health services have contributed to the decline in CHD mortality despite increasing CHD prevalence.

Data on the prevalence, incidence and risk factors of NCDs in Turkey remain incomplete, building on studies limited in time and scope. It is necessary to develop an information system which will help to monitor those important trends. Reliable vital registration and injury health data are not yet routinely available from official statistical sources.

Mother and child health has become a public health priority in the 21st century. As the core of the Millennium Development Goals (MDGs), this is a major focus for the reduction of poverty and enhancement of equity. Interagency estimates show that remarkable improvements have been observed on all indicators in Turkey, most significantly for infant mortality (from 69/1000 in 1990 to 36/1000 in 2000, 18/1000 in 2009). Maternal mortality has dropped. The MDG for under-five mortality has been reached and surpassed. Those positive results are associated with both the general improvement of the socioeconomic situation over the last twenty years and the most recent policy initiatives to address these issues within the health system. The observed decline is sharper than for comparator countries within the same range of results five years ago. Unfortunately, the methods used by international agencies to estimate infant and child mortality do not allow capture of the immediate impact of intensive interventions such as those within the HTP. Conversely, smoothing avoids ad-hoc and sometimes unexplained fluctuations which can be observed. Reported rates from the Turkish Statistical Institute (from TURKSTAT) and the Ministry of Health for 2009 and 2010 need to be seen in this light (13.1 and 14 infant deaths per 1000 live deliveries in 2009 and 10.9 infant deaths per 1000 live deliveries in 2010).

Interventions have been implemented to increase access to health-care services and to protect the most vulnerable, but health inequities remain a major challenge. Gaps in maternal and child mortality observed between regions and provinces and by income and education level.

Coverage of preventive, diagnostic and primary care services has improved greatly; immunization rate, cancer screening, antenatal care and newborn screening are among the examples. In addition, prompt response time to emergency call (within 15 minutes) for acute care has also been generalized. These positive results are in parallel with improved financial access (increased coverage of vulnerable population through extension of the non-contributory Green Card Scheme), improved responsiveness (patient satisfaction) and increased supply of services (human resources for health quantity and productivity and health infrastructures). We continue to observe some regional disparities and disparities in coverage rate by socioeconomic level but these have been reducing over time. Dedicated incentives targeting vulnerable populations were implemented, including conditional cash transfers to motivate mothers to have regular health check-ups for their children or social services support for TB patients.

Further improvements in population health status will require reduction of the health gap between men and women. Life expectancy at birth is lower than the European region average for females and in line with the regional figure for males. There is a worrying gap between men and women with regards to cardiovascular diseases and obesity. The latter requires interventions. There is a disturbing recognition that malnutrition and stunting in children and obesity show a parallel pattern within the same socioeconomic categories. This pattern points to the risk of double epidemic (obesity combined with malnutrition) which calls for the rapid implementation of interventions within those vulnerable populations. Mother and child health indicators highlight an important gradient according to education level and between rural and urban areas. There is an inverse relation between smoking and education among males. However, smoking frequency increases with education level among women (smokers comprise only 4% of women with no formal education but almost 20% of high school and university graduates). This is generally true for women living in developing countries and is explained by women's lower economic power.

Service delivery; productivity; resource generation

The increase in NCDs, especially cardiovascular diseases, has been targeted as a priority by the Ministry of Health. Health promotion and disease prevention feature prominently in the HTP-II. This is reflected to some degree in the budget allocation of the Ministry of Health: the budget for these activities has increased very significantly in absolute terms and per capita but has remained stable or even slightly decreased as a proportion of the ministry's overall budget. A more comprehensive analysis of all spending, including that of the Social Security Institute (SSI), would be necessary to draw any firm conclusion. The emphasis on disease prevention is illustrated by the recently published Turkish Control Program for Prevention of Cardiovascular Diseases which focuses on the reduction of tobacco consumption and passive smoking; prevention of obesity and unhealthy dietary habits; and raising awareness of the benefits of physical activity.

Strengthening of primary health care (PHC) and coordination with higher levels of care through the implementation of family medicine is a key priority for the reform programme in Turkey. Family medicine implementation has started in 2005 and overspread countrywide by the end of 2010. Studies are currently under way to assess the impact of this development but preliminary results are positive as they indicate a more human-centred and holistic approach and greater professionalism. In support of those studies, the two related indicators in this report indicate that PHC has been strengthened with relatively more examination at PHC level and fewer referrals to higher levels of care.

As health care has become accessible so the population's confidence in the use of public services has improved. Mechanisms such as ombudspersons and patient satisfaction surveys have been established to give a voice to citizens and patients. One key feature of family medicine in Turkey is the assignment of individuals to a named family doctor. This is instrumental in establishing a personal relationship between the doctor and the patient and concomitant trust, continuity of care and patient satisfaction. It should become a policy priority to strengthen quality monitoring and adverse event reporting mechanisms.

Very rapid rises in capacity and productivity were required to meet the increased pressure on the health system caused by the expanded demand for care. It is well-reflected in the greatly improved coverage for preventive, diagnostic and PHC services. On the supply side, there has been substantial investment in the health system infrastructure and the health workforce. Before the HTP-1, Turkey's health-care resources (facilities, beds, equipment, health professionals) lagged well behind those of other middle-income countries but since its introduction there have been rapid quantitative and qualitative improvements.

Turkey still has very low numbers of health workers and therefore synergies to maximize capacity were created by combining substantial investment with financial and non-financial incentives to increase the satisfaction and productivity of health workers. The Performance Based Supplementary Payment System for health workers in public hospitals is at the heart of such schemes. This complex system was crafted to provide incentives to both individuals and organizations; to combine financial components with prestige; to foster simultaneous improvements in productivity, quality (norms) and working conditions (individual examination rooms); and to include the patients' perspective. This system has brought a major reduction in part-time private practice and a substantial increase in the income of specialists. It is currently being evaluated by the WHO Regional Office for Europe.

Health financing; financial protection

Prior to the implementation of HTP in 2003, Turkey faced four key challenges in health financing: (i) low public spending on health in comparison to other countries with similar incomes and to OECD averages; (ii) health insurance coverage had grown but gaps in coverage remained, especially among poor households; (iii) fragmented risk pools were generating inefficiencies; and (iv) substantial out-of-pocket payments constituted a barrier to access, particularly for poor households. (OECD Health System Review – Turkey, 2008)

HTP has focused on all dimensions of health financing policy. Overall, substantial progress has been made and is summarized below.

- **Public spending on health has increased in line with GDP growth** (within financial sustainability limits). Public spending on health as a percentage of general government revenues has been increasing steadily – from 8% in 2000 to almost 13% of general government expenditures in 2008 (50% increase over almost a decade). This is comparable to the spending levels of other OECD countries and of countries in the European Union (EU). This trend indicates the increasing prioritization of health in government policies.
- **Consolidation of previously fragmented health financing pools has begun.** Various social health insurance schemes were consolidated into a single scheme managed by the SSI. The final version of the law requires all beneficiaries to receive the same benefits package (access to public and private sector doctors, outpatient benefits and drugs).
- **The SSI has been working on various strategies to ensure collection of premiums, especially from informal sector workers.** All Turkish citizens have a mandatory requirement to enroll and contribute to the social insurance system, unless contributions are paid by the State (as in the case of the Green Card).
- **Progress has been made on purchasing arrangements.** It was expected that the consolidation of risk pools would make the SSI the key purchaser of health services through contracts with the Ministry of Health, university and private hospitals and with other health-care facilities. However, this consolidation has taken longer than anticipated and is still ongoing. In this context, transformed and transitional purchasing arrangements have emerged. Currently all Ministry of Health hospitals have performance based payment arrangements in place. The Ministry of Health is beginning to implement case-based payments based on diagnosis-related groups (DRGs). The introduction of DRGs will standardize prices for medical procedures and encourage greater efficiency in hospitals.

Government efforts to provide universal coverage to Turkish citizens have rendered concrete results. Fewer families now face catastrophic health outlays and the subsequent risk of impoverishment. The population covered under social protection has increased from 70% in 2000 to 85% in 2004 before rising sharply to achieve close to full coverage (98%) in 2010.

In fact there have been significant improvements not only in the scope but also in the depth of coverage – especially for poor households. For instance, outpatient benefits and outpatient drugs were included under the Green Card (non-contributory scheme for vulnerable population) in 2004. Countries seeking to expand universal coverage through a health insurance system may draw important lessons from the Turkish experience. A narrow, hospital-based package does not provide adequate coverage and pharmaceuticals often constitute a large percentage of households expenditures. Therefore, it is critical to improve the depth of coverage. The HTP’s next challenge is to advance these health financing transformations by: (i) completing the consolidation of risk pools under the SSI; and (ii) encouraging the SSI to take on all purchasing functions.

Leadership and governance

“One of the success factors for the implementation of the HTP program is the importance of the vision and leadership to set values and guiding principles, and the determination to follow through policy implementation” (Baris et al. 2011).

Governments face a key challenge in leading their health systems in a manner that ensures that all constituents fully understand the vision and priorities for change; supports them in embracing their roles and responsibilities in contributing to the desired changes; and encourages mutual accountability to enable movement towards better, higher-performing health systems. As recognized by the Ministry of Health, the interdependence of health system functions calls for a coherent approach and coordinated action. **Strong and stable leadership** has enabled the implementation of considerable reforms that have yielded significant improvements in utilization, effectiveness and health outcomes in the Turkish national health system.

These results have been achieved by a combination of measures to:

- i. invest in the health system (generate resources to create capacity);
- ii. create incentives for health professionals (for more productive use of the infrastructure);
- iii. encourage demand for essential health services (through increased confidence and trust in the health system and targeted interventions aimed at most vulnerable population); while
- iv. recognizing the importance of prevention and health promotion and fostering intersectoral action. Each policy measure is important but, within the Turkish setting, the key characteristics are that these were all addressed in a coherent and coordinated way and that the reform programme was implemented in a remarkably short period.

The guiding principles for the HTP are a people-focused approach, pluralism, separation of power, incremental shift towards health provider autonomy and competitiveness. **These goals entail radical restructuring of the governance mechanisms by: redefining the roles and responsibilities of the Ministry of Health towards “more steering and less rowing”;** separating the provision and financing of health care in order to achieve more efficient allocation and use of resources; and by increasing financial and administrative autonomy for public hospitals in order to improve technical efficiency and strengthen management.

There is a crucial link between a core message of The Tallinn Charter: Health Systems for Health and Wealth and the ability to sustain public commitment to health spending – health systems need to demonstrate good performance. This is very clearly illustrated in Turkey where there have been major investments during the two phases of the HTP and the Ministry of Health is a pilot institution for implementation of performance based budgeting. Restructuring of public financial management should help to establish accountability, financial transparency and discipline and cost effectiveness in the public sector. **The Ministry of Health is one of the pilot institutions that have initiated performance based budgeting and strategic planning activities.**

The process of developing an HSPA report for Turkey has **highlighted the fragmentation and gaps in information systems** that make it very difficult to gather some indicators. In particular, it was not possible to disaggregate results for sex, income quintile or education (except for the few indicators based on household survey data). Most of the distribution analysis for this HSPA is reliant on observation of regional or provincial differences. It is advised that the establishment of a comprehensive health and gender equity surveillance system is required in order to tackle the possible health and gender gaps identified in the limited but important observations above (CSDH, 2008).

The Ministry of Health recognizes the importance of increasing the awareness of health responsibility within all sectors and **leading intersectoral action towards improved health.** For instance, major steps in tobacco control have already been implemented including a total ban on smoking in closed spaces and increased taxation of tobacco products. Such advances have been achieved due to strong commitment at the highest level – in 2010 His Excellency the Prime Minister Recep Tayyip Erdoğan received the WHO Director General’s Special Recognition Award for Contribution to Global Tobacco Control. The Ministry of Health recognizes the need to provide leadership within Turkey and also internationally by developing **international cooperation**, supporting international development and building on quality improvement achieved within the Turkish sector in order to gain international recognition that will **attract international health tourism.**

B. Articles

1. *Journal of Healthcare Finance, Outsourcing Profile in the Turkish Health Care System, 2009*

This article on the Outsourcing Profile in the Turkish Health Care System has been published in the *Journal of Healthcare Finance* in 2009. The authors are Salih Mollahaliloglu, Sahin Kavuncubasi, Hakkı Gursoz, Ismail Agirbas, Hakan Oguz Ari, Hasan Gokhun Oncul, Recep Akdağ and Mustafa Z. Younis. The main objective of this study is to determine the outsourcing practices in MoH hospitals.

Conclusions and Policy Implications:

The primary purpose of this study is to describe the profile of outsourcing practices in MoH hospitals in Turkey. Frequency, types, and content of services outsourced by MoH hospitals have grown and changed considerably over the past decade and are estimated to continue growing. Consistent with the findings of the other studies, this study shows that outsourcing practices are constantly spreading from support functions to administrative and clinical functions of hospitals. In summary, outsourcing has become an attractive option for hospital managers.

Outsourcing core hospital functions in MoH hospitals appears to be less common than outsourcing noncore services; however, it can be expected that outsourcing clinical services will grow rapidly because the “service continuity” policy approved by MoH directs managers to meet whole needs of patients within hospitals. According to the service continuity policy, a separate principle of the Health Transformation Project, instead of directing patients to the referral hospitals (secondary and tertiary hospitals), which are usually located in urban areas of Turkey, hospitals should provide specialized services their patients through outsourcing.

On the other hand, MoH is planning to implement a Public Private Partnership (PPP) strategy in Turkey. This strategy can be expected to create cooperation between public and private hospitals to deliver higher quality services with a minimum cost level. PPP will be able to facilitate and to accelerate outsourcing practices especially in the provision of high-cost, low-volume services to patients. Recent trends in outsourcing has revealed that outsourcing of diagnostic and treatment services is widening; therefore, new market opportunities will undoubtedly be appeared for national and international organizations (vendors). As Augurzky and Scheuer (2007) note, analogical to a case in Germany, we propose that, “nobody should be surprised if service firms from other countries enter the Turkish health market if Turkish service firms do not rapidly make themselves more attractive to hospitals.”

2. *The Turkish Journal of Pediatrics, Recent Improvements in the Turkish Childhood National Immunization Program, 2010*

The article has been published in Turkish Journal of Pediatrics in 2010. The Author is Prof.Dr. Mehmet Ceyhan.

The findings and evaluations regarding the Turkish Childhood National Immunization Program are included.

Abstract:

The Childhood National Immunization Program (NIP) is a key element of the primary healthcare and plays a major role in the national health status. The Turkish NIP, which is run by the Ministry of Health, included mainly the basic vaccines (Bacillus Calmette-Guerin [BCG], diphtheria-pertussis-tetanus [DPT], polio, measles) until 2005. However, a change in the governmental policies in 2002 and a close collaboration with the Advisory Board of Immunization have improved the Turkish NIP not only in terms of the quality of the vaccines and vaccination rates but also the number of pathogens covered. Currently, Turkey has a NIP that is equivalent to or better than that of the other European countries. However, making vaccination a constant part and priority of the state health policies is necessary for sustainability. Political commitment and efficient multi-sectoral collaboration and awareness are crucial.

3. *BMJ, Healthcare in Turkey: from laggard to leader, 2011*

The authors of this analysis are Enis Barış, Salih Mollahaliloğlu and Sabahattin Aydın, and it was published in British Medical Journal in 2011.

Abstract:

“Less than a decade ago, the health system in Turkey was considered a laggard, not only relative to the rest of the Organisation for Economic Cooperation and Development (OECD) but to other high middle income countries. A major discrepancy existed between constitutional aspirations of equitable access to healthcare for all citizens and the reality on the ground. Health mattered, yet was seldom addressed on the political agenda. Today, the health system in Turkey is transformed, not quite to the point of favourable comparison with the rest of the OECD and most of the European Union, but fast closing the gap in health outcomes, responsiveness, and fair financing. We describe the Health Transformation Programme (HTP) launched in 2003, analyse the reasons behind its achievements, and share the lessons learnt.”

Achievements and Lessons:

Health for all in Turkey is no longer merely an aspiration. Universal health coverage is ensured as a result of a high level of political commitment. Today, catastrophic health expenditure impoverishes only 0.4% of the Turkish population.

Equally important is the growing international recognition that it is indeed possible to improve health outcomes in such a short span by investing in health systems. Turkey is now frequently cited as a success story, rather than as an underperformer, having improved its health outcomes at a pace and to a level almost unheard of in middle income countries, and in the case of health related millennium development goals, well before the 2015 deadline.

The recent Turkish experience provides at least three key lessons for other high middle income countries. One obvious lesson is the need to invest in health systems. Among the OECD countries, Turkey allocates the largest proportion of its public health budget, about 7.7%, to investment, compared with the OECD average of 4.2%. The budget allocated to expanding prevention and primary healthcare to underserved areas has also increased 58% in real terms. The 112 emergency telephone line now serves rural areas as well as cities. Seventeen air ambulances routinely serve geographically remote areas, transporting high risk pregnant women and sick children to better equipped urban facilities. An additional 111.000 health workers have been recruited.

The health workforce is now distributed more equitably in geographical terms resulting in reduced inequalities in access to care among the poorest. The urban/rural and rich/poor ratios are now 1:1 for both birth attendance by skilled health staff and measles immunisation coverage.

A second and less obvious lesson is the importance of encouraging demand for essential health services by reducing sociocultural barriers and offering financial incentives. Pregnant women who live in remote areas are provided with free accommodation in cities for up to one month before delivery. Since the programme began in October 2008, close to 7000 pregnant women have used free predelivery care. In 2004, Turkey introduced a conditional cash transfer scheme, about TL17 per month payable to mothers, to encourage pregnant women, mothers, and their children to visit health facilities regularly, with an additional payment of about TL55 if women delivered their babies in public hospitals. As a result, the proportion of women who have attended at least four prenatal visits rose from 53.9% in 2003 to 73.7% in 2008 and the proportion of births attended by skilled health staff rose from 83% to 91.3% over the same period. Also in 2008, measles immunisation coverage reached 96%, from 82% in 2002. As a result, there were only four measles cases in 2008, down from 30 509 in 2001.

The third lesson is the importance of vision and leadership to set values and guiding principles, and the determination to follow through policy implementation. A shift of perspective has placed the patient or citizen as the basis of all policy goals and performance evaluation. Reference to, and continuous monitoring and evaluation of, responsiveness to patients' needs and preferences and patient satisfaction figure prominently in policy papers, reports, and public speeches, and have been introduced as benchmarks into various supplementary payment schemes that are performance based and measured regularly through patient satisfaction surveys. The population's satisfaction is now, at the highest level since regular polling of patients began and service utilisation is at an all time high.

Finally, considerable investment has been made to improve data availability, quality, and timeliness, complemented by household and user surveys. A nationwide survey on maternal mortality in 2006 put an end to the large disparity that had existed between national and international estimates and set the benchmark against which future progress will be assessed. All maternal deaths are now investigated, at times by the health minister himself, to identify the cause of death and take corrective action. Onsite oversight is routine, with the minister and his field coordinators reportedly having travelled 600 000 km and visited all 81 provinces, often more than once a year.

Unfinished Agenda:

Health systems alone can only do so much to improve health without concurrent improvement in human development and increase in equality of opportunity. This is particularly true in Turkey, where income inequality is rising and literacy is yet to be universal (Table 2). A large gender gap persists as a result of lower enrolment and participation of girls and women in education and labour. Regardless of the socioeconomic differences, non-communicable diseases are rising because of unhealthy lifestyles: Turks still smoke a lot, and as they rapidly urbanise, they also become less physically active and more obese. A rapidly ageing population, especially in the west of the country, is already using health services more often as a result of improved access, demanding higher quality and more user friendly care.

All these factors mean that the much improved health system needs constantly to adapt to changing health and healthcare needs. The emerging challenges are now more programmatic and less structural, such as further embedding health in all policies, especially in relation to environmental and behavioural determinants of health; establishing disease prevention and health promotion services in all family based and community based primary care services; and improving public knowledge about healthy behaviour and healthier living and ageing.

Conclusion:

In just seven years, Turkey's Health Transformation Programme has been able to ensure universal health coverage for essential care and significantly improve health outcomes. The major challenge now is how to steer a much more complex health system in the right direction and adapt it to the changing needs and preferences of an increasingly assertive citizenry and a democratic and pluralistic governance structure, while improving efficiency and financial sustainability. These are the same challenges that the rest of OECD and EU member states face today.

4. Journal Methods of Information in Medicine, Electronic Health Record Interoperability as Realized in the Turkish Health Information System, 2011

The authors of this paper are A. Dogaç, M. Yüksel, A. Avcı, B. Ceyhan, Ü. Hülür, Z. Eryılmaz, S. Mollahaliloğlu, E. Atbakan and R. Akdağ, and it was published in Journal Methods of Information in Medicine in 2011.

The subject of the paper is the development of the National Health Information System of Turkey (NHIS-T).

Abstract:

Objectives: The objective of this paper is to describe the techniques used in developing the National Health Information System of Turkey (NHIS-T), a nation-wide infrastructure for sharing electronic health records (EHRs).

Methods: The UN/CEFACT Core Components Technical Specification (CCTS) methodology was applied to design the logical EHR structure and to increase the reuse of common information blocks in EHRs.

Results:

The NHIS-T became operational on January 15, 2009. By June 2010, 99% of the public hospitals and 71% of the private and university hospitals were connected to NHIS-T with daily feeds of their patients' EHRs. Out of the 72 million citizens of Turkey, electronic healthcare records of 43 million citizens have already been created in NHIS-T. Currently, only the general practitioners can access the EHRs of their patients. In the second phase of the implementation and once the legal framework is completed, the proper patient consent mechanisms will be available through the personal health record system that is under development. At this time authorized healthcare professionals in secondary and tertiary healthcare systems can access the patients' EHRs.

Conclusions:

A number of factors affected the successful implementation of NHIS-T. First, all stakeholders have to adopt the specified standards. Second, the UN/CEFACT CCTS approach was applied which facilitated the development and understanding of rather complex EHR schemas. Finally, the comprehensive testing of vendor-based hospital information systems for their conformance to and interoperability with NHIS-T through an automated testing platform enhanced substantially the fast integration of vendor-based solutions with the NHIS-T.

C. Letters

1. Letter from Sir Andrew Dillon, the Director of NICE

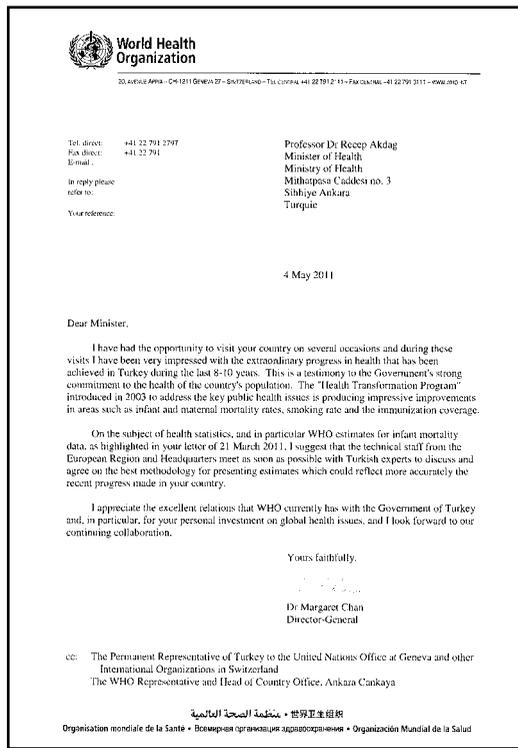


In his letter dated 20 December 2010, Sir Andrew Dillon, the Director of NICE, invited Prof. Dr. Recep Akdağ, Minister of Health of Turkey to be the keynote presenter at the international conference on “Global Health 2011 – Policy for Sustainable and Effective Healthcare”.

It is stated in the letter that NICE and the MoH of Turkey has been working together since 2008 and that the said conference may be a way to show the progress made in the collaboration so far and raise awareness amongst the global community of Turkey’s commitment to universal coverage and evidence-based policy making. **It is mentioned that the Turkish model would be of relevance to many countries faced with similar challenges in their attempt to improve the quality and efficiency of care offered to their citizens.**

NICE and BMJ invited our Minister for sharing experiences at the conference, which was organized with the aim of supporting leaders and decision makers that want to improve health outcomes and generate cost-effective and evidence-based health policies.

2. Letter from Dr. Chan Director General to the WHO



In her letter dated 4 May 2011 to our Minister, Dr. Margaret Chan, the Director General to WHO says:

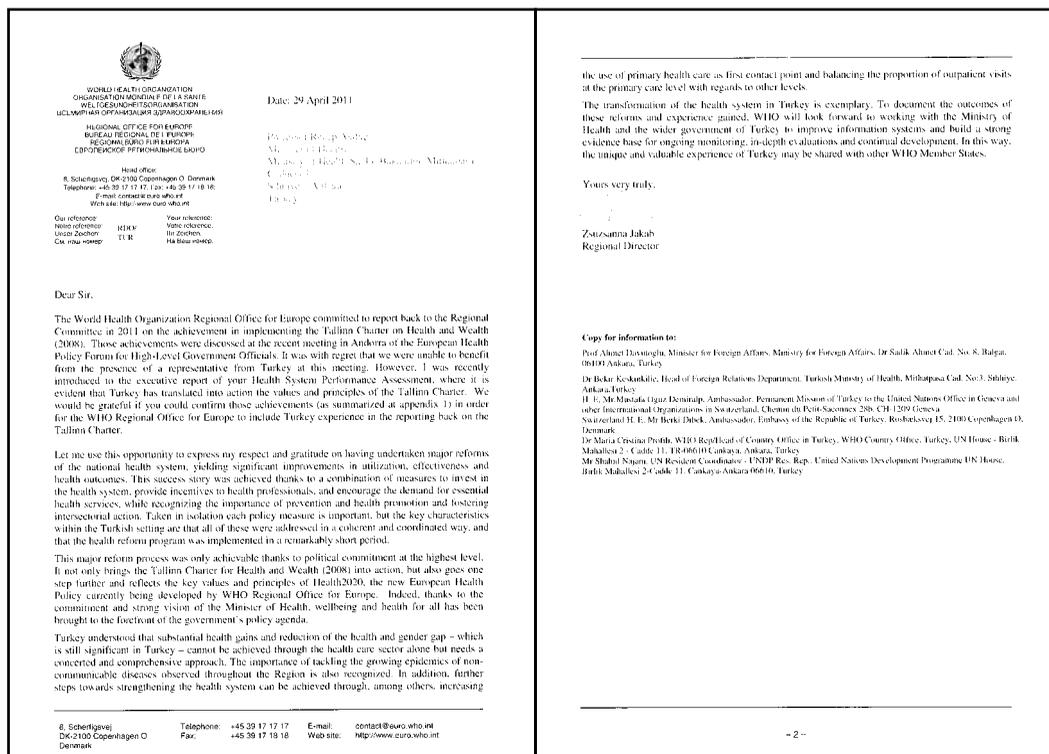
“Dear Minister,

I have had the opportunity to visit your country on several occasions and during these visits I have been very impressed with the extraordinary progress in health that has been achieved in Turkey during the last 8-10 years. The “Health Transformation Programme” introduced in 2003 to address the key public health issues is producing impressive improvements in areas such as infant and maternal mortality rates, smoking rate and immunisation coverage.

...

I appreciate the excellent relations that WHO currently has with the Government of Turkey and, in particular, for your personal investment on global health issues, and I look forward to our continuing collaboration.”

3. Letter from Zsuzsanna Jakap, Regional Director of WHO Regional Office for Europe



In her letter dated 29 April 2011 to our Minister, Zsuzsanna Jakap, the Regional Director of WHO Regional Office for Europe says:

“Dear Minister,

...I was recently introduced to the executive report of your Health System Performance Assessment, where it is evident that Turkey has translated into action the values and principles of the Tallinn Charter. We would be grateful if you could confirm those achievements (as summarized at appendix 1) in order for the WHO Regional office for Europe to include Turkey experience in the reporting back on the Tallinn Charter.

Let me use this opportunity to express my respect and gratitude on having undertaken major reforms of the national health system, yielding significant improvements in utilization, effectiveness and health outcomes. This success story was achieved thanks to a combination of measures to invest in the health system, provide incentives to health professionals, and encourage the demand for essential health services, while recognizing the importance of prevention and health promotion and fostering intersectoral action.

Taken in isolation each policy measure is important, but the key characteristics within the Turkish setting are that all of these were addressed in a coherent and coordinated way, and that the health reform program was implemented in a remarkably short period.

This major process was only achievable thanks to political commitment at the highest level. It not only brings the Talinn Charter for Health and Wealth into action, but also goes one step further and reflects the key values and principles of Health 2020, the new European Health Policy currently being developed by WHO Regional Office for Europe. Indeed, thanks to the commitment and strong vision of the Minister of Health, wellbeing and health for all has been brought to the forefront of the government's policy agenda.

Turkey understood that substantial health gains and reduction of the health and gender gap –which is still significant in Turkey- cannot be achieved through the health care sector alone but needs a concerted and comprehensive approach. The importance of tackling the growing epidemics of non-communicable diseases observed throughout the Region is also recognised. In addition, further steps towards strengthening the health system can be achieved through, among others, increasing the use of primary health care as first contact point and balancing the proportion of outpatient visits at the primary care level with regards to other levels.

The transformation of the health system in Turkey is exemplary. To document the outcomes of these reforms and experience gained, WHO will look forward to working with the Ministry of Health and the wider government of Turkey to improve information systems and build a strong evidence base for ongoing monitoring, in-depth evaluations and continual development. In this way, the unique and valuable experience of Turkey may be shared with other WHO Member States.”

3. Other Scientific Assessments on the Health Transformation Program (HTP)

For well-designed programs and projects, monitoring and evaluation are at least as important as planning and implementation. This aspect has been intently considered by the Health Transformation Program of Turkey, which is a large-scale and comprehensive reform program, and scientific studies assessing reforms from different perspectives have been planned. These studies are being conducted by academicians that have expertise in relevant fields with the support of the MoH units. Some of those works are completed and some of them are continuing; and their follow-up schedule is indicated on the next page.



CHRONOLOGY OF THE HEALTH TRANSFORMATION PROGRAM

2003

- We put an end to being held in pledge.
- We made 112 Emergency Health Care Services entirely free-of-charge.
- We started the scaling-up of free mobile health care services in rural areas.
- We enabled the citizens to access the services provided by private hospitals and medical centers using their health insurance.
- We initiated Total Quality Management (TQM) implementation in the MoH.
- We started performance-based supplementary payment system. Therefore, we ensured full-time practice for physicians in hospitals and we substantially reduced patients' need to apply to private practice.
- We started "one examination room for each physician" practice in health facilities affiliated with the MoH.
- We launched the transition from ward system to room (including bed and bathroom) system.

2004

- We started the free-of-charge distribution of iron supplement and vitamin-D to babies and pregnant women.
- We started to establish free-of-charge Cancer Screening and Training Centers (KETEM).
- We started to implement personal performance-based payment system in MoH institutions.
- We included outpatient services in the benefits package of Green Card holders.
- We started the implementation of “right to choose physician” in MoH hospitals.
- We started the conditional cash transfer implementation.
- We compensated retroactive health care payments of the citizens who had been entitled to hold Green Card but had not been able to get it before getting sick.
- Establishment phase of the NMRTs for which training and establishment procedures started in 2003 was concluded.
- We started Reference Price System implementation for medicine.
- We put Health Information Communication Centre (SABİM) into service.
- We started “contracted personnel implementation” for deprivation areas.

2005

- We enabled 37 million SSK enrollees to benefit from public hospitals by uniting public hospitals under a single roof.
- We enabled the Green Card holders to benefit from public health care services like other insured citizens and we enabled them to take their medicine from any pharmacy.
- We included institutional criteria and quality criteria in performance-based payment system in MoH institutions.
- We started Family Medicine pilot implementation in Düzce province.
- We established Patient Rights unit in every MoH hospital.

2006

- We started global budget implementation for MoH hospitals.
- We initiated the enforcement of the Law no. 5502 (Integration of social security institutions).
- The Law on Public Private Partnership (PPP) was adopted by the National Assembly.
- We included measles, mumps and rubella vaccines in routine vaccination program.
- We scaled-up Directly Observed Treatment (DOT) implementation for tuberculosis patients countrywide.
- We started a screening program for Hypothyroid.

2007

- We enabled all citizens to access primary care services free-of-charge.
- We terminated the referral obligation from MoH hospitals to university hospitals for SSK and Bağ-kur enrollees.
- We enabled patients with chronic diseases to have their prescriptions dispensed in pharmacies without the approval of a physician.
- We initiated bundle (fixed) payment based on and ICD – 10 for outpatient and inpatient procedures in all SSI-contracted MoH hospitals, university hospitals and private hospitals.
- We started an implementation for SSI-contracted hospitals including the free supply of medicine and medical equipment (under insurance coverage) and the sanctioning of hospitals receiving payment from patients.
- We took Green Card holders' outpatient expenses for medical examination, test- analysis, medicine, dental extraction, dental prosthesis, eyeglasses and emergency care under the coverage.
- We procured ambulances with snow pallet to provide accessibility in areas with hard winter conditions.
- We started an implementation for SSI-contracted hospitals including the free supply of medicine and medical equipment for hospitalized patients.

- We started providing emergency and intensive care treatments free-of-charge in all public and private hospitals.
- We ensured that no additional payment is taken for the procurement of the following services in private hospitals:
- Burns, cancer, newborn, tissue transplantation, congenital anomalies, dialysis and CVS procedures.
- We included all population below 18 and students in UHI coverage without seeking social security.
- We enabled every citizen (insured or non-insured) to benefit from free health care services in case of emergencies, epidemics, occupational accidents and occupational diseases.
- We launched air ambulance system.
- We reduced premium payment period to 30 days for SSK and Bağ-Kur enrollees with a view to enabling them to get health service.
- In case of diseases which cannot be treated in Turkey, we provided all insured citizens with the possibility of receiving treatment in foreign countries.
- As MoH, we started planning private health facilities in terms of physicians and certain medical devices.
- We included pentavalent vaccines into routine immunization program.
- The Law on the Prevention and Control of Harmful Effects of Tobacco Products, which prohibits smoking in indoor public places, was adopted by the National Assembly.
- We launched Guest Mother Project in order to welcome future mothers and provide them with healthy delivery conditions in places with transportation problems.
- We launched biotinidase scanning program.
- We started community-based mental health services.
- We launched Health Promotion Program.

2009

- We started PTS pilot implementation.
- We started Central Patient Appointment System (CPAS) pilot implementation.
- We introduced “when the generic of an original product is placed on the market, the price of the product should not exceed 66% of existing product’s price” (for both original and generic products)” rule.
- We started mobile pharmacy implementation to ease the access of people living in rural areas to medicine.

- We enabled Green Card holders to benefit from emergency and intensive care services from private hospitals free-of-charge.
- We enabled Green Card holders to benefit from root canal therapy and dental filling free-of-charge.
- We prepared Full-Day Law regarding full-time working of University and healthcare personnel.
- We started to provide home-care.
- We scaled-up PTS implementation countrywide.
- We scaled-up Family Medicine implementation countrywide.
- We started studies on reducing bureaucracy and administrative simplification.
- We included ambulance planes in air ambulance group.
- We started Diagnosis Related Groups (DRG) payment system.



HEALTH TRANSFORMATION CONTINUES...

1. Legislative Amendments Planned for the Upcoming Period

A. Law on Public Hospital Unions

“Public Hospital Unions” structuring is initiated in order to decentralize services, reduce bureaucracy and paper work, provide participation and establish an accountable and accessible management mechanism at the nearest place to the service receivers.

Within this scope, the principles of the establishment and operation of public hospital unions have been determined by the Draft Law on Public Hospital Unions which is adopted by National Assembly’s Planning and Budget Commission and submitted to the General Assembly with a view to ensuring participatory, equitable, qualified and easily-accessible health care services, which meet the needs and expectations of public, with an effective and efficient use of resources.

Secondary and tertiary health care facilities (all hospitals in provinces including Oral and Dental Health Centers) affiliated with the MoH will be evaluated and rated by the Ministry in terms of patient and personnel satisfaction, service infrastructure, organization, quality and efficiency. The evaluations will be renewed in periods not less than six months and not more than one year. Hospitals will be divided in five classes as (A), (B), (C), (D) and (E). On condition that there is no (E) class hospital in service area to be transformed into Union, the group of hospitals with (C) and over rating will be transformed into Union. A Union may be established by the hospitals meeting these requirements, upon the proposal from the Ministry and the cabinet decree. Unions may be established at the level of provinces; nevertheless, it will be possible to establish more than one Union in large provinces.

Unions will have public entity and will operate as the related institution of the Ministry. The bodies of the Unions will consist of the office of secretary general and hospital managements.

The executive board will be the decision body of the Union and will reflect local demands and expectations. The executive board will include local representatives who will contribute by their education and occupation together with the representatives of MoH who will add information, policy and experiences.

The executive board is the highest decision making authority of the Union and it consists of the following 7 members, who are at least high school graduates and have 5 years of experience in their professions:

- Two members one of whom shall have bachelor’s degree, master’s degree or PhD in any field of law to be designated by provincial general assembly and the other shall be a chartered accountant, freelance accountant or person from banking and finance sector.
- One member to be designated by the Governor,
- Three members to be designated by the Ministry: one member who has medical training, one member from health sector and one member among provincial health

- One member with experience in investment and management, designated by the Chamber of Industry and Trade or where they are two different bodies, by the Chamber of Trade.

On the other hand, the executive board will take qualified decisions regarding the administration of the Union based on the target, policy, strategic plan and legislation established by the Ministry. Execution will be carried out by the secretary general and the other managers in the hospital. Within this system, management will be based on success target; terms of reference will be determined by each manager; the performance criteria will be established. The current situation regarding the performance-based payment system, which rewards success, will be taken one step further, and payments of the managers will also be based on performance besides the payment of health workers.

Hospital management is left to professional managers. Team work is foreseen. A definite duration is specified for management, and managers are employed as contracted. Accountability is brought by the performance criteria for managers, thus a tangible success evaluation is possible. It will be possible to discharge unsuccessful managers and their teams from their positions. Hospital services are separated into medical services, managerial services and financial services. The execution of these services is assigned to people who have specialty in their business.

All the managerial, judiciary, financial and technical work and transactions, which are currently conducted under the responsibility of the head physicians of the hospitals, will be conducted by the office of secretary general based on the decisions of executive board; therefore, the workload of the hospitals regarding managerial, judiciary, financial matters will be substantially eased, and they will be directed to concentrate upon medical services.

Other personnel of the hospitals that are transformed into Union will continue at their current status. Their current units and protection of their rights are under guarantee. The personnel to be transferred to Unit will benefit from the bonus payment in the same way as the MoH personnel do.

Incomes and expenses of the Union are determined; flexibility is provided through the opportunities such as procurement of services from each other or from the institutions of the Ministry, lending and transferring goods and movables.

The Ministry will conduct the administrative and technical audit of the Unions. A transitional executive board may be established in case of failure or inadequacy of the executive board. In order to provide a balanced distribution of healthcare personnel at country level, the Ministry owns the Unions' authorization to make plans regarding the assignments and transfers for contacted and permanent healthcare personnel positions. Ministry's large-scale duties such as monitoring and evaluation of services of the union throughout the country, regulation of inter-Union relations, bundle procurement, preparation of health legislation, determination of strategies, targets and policies, planning continue.

B. Organization Law

The MoH is being restructured to provide the organization of health care services other than the services under the responsibility of Public Hospital Unions, which are established with a view to delivering secondary and tertiary health care services.

The benefits expected to be gained through this Law are mentioned below:

- to improve strategic planning and development capacity and skills of the Ministry,
- to provide efficient and rapid delivery of health services by way of decentralized service delivery,
- to focus more strongly on the delivery services,
- to use human and financial resources more productive than the current structure,
- to ensure more efficient planning, regulation and auditing of public and private health services,
- to focus the audit understanding on system and service rather than personnel,
- to provide faster and more efficient problem resolution by reducing bureaucracy,
- to encourage institutional specialization,
- to increase participation,
- to eliminate negative daily political interventions with a system focused on success and performance,
- to ensure healthcare personnel to focus on their own work by initiating professionalism in health care management.

C. Health Care Services Fundamental Law:

Laws that are currently still in force cannot fully meet today's requirements (due to scientific and technologic developments). On the other hand health-related laws are fragmented and are far from scientific and modern judiciary methodology and algorithm. We are planning to draw up a law that will meet the needs of all the shareholders in health sector and will be in harmony with the EU norms.

2. 2023 Vision of Health

- We aim at a Turkey, where individual and community health is protected at the highest level and the most rapid and efficient solutions are brought forward.
- We will minimize environmental threats against human health; therefore, we will make cities and villages more peaceful to live in.
- We will continue enhancing community-based health services. We will continue the organization of region-based health services; therefore we will enable regions to be adequate health areas.
- Regardless of their financial circumstances, we will continue seeing all citizens as first class citizens. We will follow up our citizens' health in pregnancy, birth, childhood, adolescence, youth, and old age, namely lifelong.
- +We started family medicine implementation throughout Turkey in 2010. We currently employ one family physician per 3.600 individuals. We plan to employ one family physician per approximately 3.200 individuals in 2015, 2550 individuals in 2019. In 2023, we will realize a structure fully consisting of specialized family physicians and each family physician will be employed per 2.000 individuals.
- We will continue preventive oral-dental health services until 2015 within the framework of strategic action plan and we will initiate family dentistry transition phase.
- While pregnancy-associated maternal mortality rate was 61 in one hundred thousand in 2003, we reduced this ratio with an unprecedented speed. We gained this success in 8 years while it took 23 years for the other OECD countries to do the same. Today, pregnancy-associated maternal mortality ratio is 16.4 per one hundred thousand. We will reduce this rate below 10 per one hundred thousand in 2015; below 8 per one hundred thousand in 2019 and below 6 per one hundred thousand in 2023.
- In 2003, the mortality rate of the infants younger than 1 year old was 29 per one thousand. We reduced this rate with an unprecedented speed. We gained this success in 8 years while it took 30 years for the other OECD countries to do the same. Today, infant mortality rate is 10.1 per one thousand. We will reduce this rate below 7 per one thousand in 2015; below 6 per one thousand in 2019 and below 5 per one thousand in 2023.
- We accomplished 97% rate in child vaccination. This rate is over the vaccination rates of high-income group countries. We will maintain this rate. We will continue providing latest innovations and technologies in vaccination for our children. In 1980, 6 different routine vaccinations were being administered in Turkey. By the end of 2002, the year we came to office, the figure was only 7. Today, we administer 11 different vaccinations. In 2015, we will make this figure 13 by adding minimum two

- Our 112 Emergency Health Care Services fleet currently has an adequate capacity with 2.500 vehicles. We will add 800 fully equipped ambulances to this fleet until 2015. On the other hand, we will remove vehicles over age 3 from the system; therefore, we will have a young fleet with 2.750 ambulances.
- We are going to ensure that the capacity of Europe's largest National Medical Rescue Team established for disasters consisting of 4.500 persons will be increased to 6.000 persons by the end of 2015.
- We will continue improving medical equipments and technology which will reduce the effect of disasters and crises on our health. We will reinforce the related local structuring.
- Through the Health Transformation Program implementations, we eliminated measles and malaria; the typhoid figure is nearly zero. The prevalence of sexually transmitted diseases including AIDS in Turkey is way below the European average. We will continue reducing the prevalence of these diseases. We will reduce the prevalence of other communicable diseases such as hepatitis A, brucella, and anthrax to the European average until 2015.
- We will reduce the damages of communicable diseases on our health, social and economical status to the level of most developed countries.
- We will add years to life, life to years by improving citizens' awareness of their own health. We will develop a society structure with highly improved physical and mental health.
- We will decisively continue implementing national programs developed to prevent impairment of health due to non-communicable diseases such as cancer, heart diseases, diabetes and asthma as well as premature deaths. We will pursue our fight against alcohol use, excessive weight, high blood pressure and high cholesterol via "Health Promotion Program" with determination. We will promote balanced nutrition, fruit and vegetable consumption and physical activities. We will reduce the current obesity rate of 32% below 30% by 2015, below 25% by 2019 and below 20% by 2023. We will start counteracting obesity activities for young at young ages and in schools.
- We will continue fighting against the risk factors causing use of tobacco, alcohol, drug and other substances in order to reduce their use. Today, 27 out of 100 persons over the age of 15 are smoking. We will reduce this rate below 23% by 2015, below 19% by 2019 and below 15% by 2023.

- We aim at increasing the number of KETEMs (from 123 to 250) all of which have been established during our term. We reached 20% of the target group for cancer screening; we aim at increasing this rate to 70%. We will increase the number of oncology centers (from 18 to 50) which provide comprehensive diagnosis and treatment opportunities. We will establish the “Cancer Institute” in the upcoming term.
- We will reach to the level of most developed countries in the world in terms of preventing non-communicable chronic diseases, mental disorders and diseases, disabilities and premature deaths due to violence and injuries.
- We will ensure that people with special needs due to their health, social or economic conditions, especially the disabled can access health services more easily. We aim at providing services for the patients requiring care at their homes in a family environment when it is possible to deliver the necessary medical care and rehabilitation services out of hospital and we aim at reducing the duration of hospital stay. We started home care service implementation in 2010 and today we provide home care services for 10.000 patients. We aim at reaching 70.000 persons by 2011. Our target is to provide all of the people (150.000 persons) requiring home care services by 2015.
- We will provide a high-quality living opportunity for the elderly. The elderly will be more active and healthier. We will exceed the world standards in providing care services for the elderly. We will be delivering services to the elderly when required.
- While in 2002, the rate of qualified beds in our hospitals was 6%, the current rate is 30%. Until 2015, we will ensure that all patient rooms in our health facilities have maximum 2 beds with bathroom and toilet. Therefore, we will go on providing modern and high-quality health services for our people.
- We will increase the rate of blood and blood products procurement from 60% to 100% by scaling-up the implementations developed together with Turkish Red Crescent. In other words, by the end of 2012 our citizens will not have a problem with “finding blood”.
- Within the framework of rational drug use policy, we will continue our studies on qualified and economical delivery of health care services.
- We will establish “National Pharmaceuticals and Medical Devices Agency” in order to improve the management of pharmaceuticals and medical devices.

- Using the PPP model, we are establishing huge campuses where health facilities, R&D units, high technology centers, social living areas, institute of medical sciences and broad recreation sites are all together.
- We are making progress in establishing environment-friendly hospitals by realizing LEED certificated green hospital projects.
- We will develop health campuses which we have initiated to scale-up treatment variety countrywide, accomplish regional development in health, improve the quality of services and provide cost effective health services throughout the country.
- We will provide 38.000 new beds in 30 campuses, 22 provinces within the scope of PPP:
- We will scale-up offset implementations which we started with vaccination.
- As regards health tourism, we will be the centre of Europe, Middle-East, Africa, Central Asia and Russia area.
- We will establish autonomous hospital unions compatible with the country requirements through the “Law on Public Hospital Unions” drafted and submitted to the National Assembly with a view to ensuring the procurement of more effective, productive, rapid and qualified health services to our citizens.
- We will restructure the MoH and strengthen its regulation, planning an auditing role through the fully drafted “Organization Law”. We will develop a system regarding the accreditation of health institutions in cooperation with TÜRKAK (National Accreditation Agency).
- We will establish “National Reference Laboratory” compatible with contemporary and international standards until 2015.
- We will take the steps necessary to transform the structurally strengthened School of Public Health into the “National Health Institute”; therefore, we will strengthen R&D activities and primarily management of health care systems.
- We increased the quota of the medical schools from 4.500 to 7.500 in order to make up for the deficiency in manpower in health. We will continue the cooperation with the CHE with a view to increasing this quota up to 10.000 and to increase the quota of nursing schools up to 20.000.

When the number of physicians increases, it will become possible for the private sector to employ more physicians.

Today, the total number of physicians is 120.000. We will increase this figure to 130.000 in 2015, 155.000 in 2019 and 200.000 in 2023, i.e. almost twice the current figure. Today the total number of midwife nurses is 163.000. We will increase this figure to 238.000 in 2015, 310.000 in 2019 and 400.000 in 2023, i.e. almost 2.5 times the current figure. Today the total number of physicians is 650.000. We will increase this figure to 715.000 in 2015, 853.000 in 2019 and 1.100.000 in 2023, i.e. almost twice the current figure. Thus, we will ensure the sustainability of the qualified health services, which our citizens have a right to receive.

- The approximate duration of medical examination will be 20 minutes.
- Our citizens will go on using the newest medical technologies at the cheapest prices. We will scale-up promotion and procurement implementations to attract high medical technologies to Turkey.
- In the upcoming term, within the scope of e-health implementations:
 - We will continue the electronic coordination of the MoH, universities, SSI and private health institutions.
 - We will initiate paperless patient follow-up period through the electronic patient registration system.
 - We will start sharing radiologic images throughout Turkey by using “Tele-Health”, inter-hospital information and communication technologies which enables us to conduct remote diagnosis, treatment and follow-up implementations.
 - We will introduce e-health card system by which the personal health records are kept complying with security and confidentiality principles.
 - All health facilities will be providing health services through CPAS.
 - We will provide medical consultancy via internet (e-family medicine).
 - We will open health data in order to share it with the EU countries.

- We will follow up-to-date scientific developments regarding health and provide it for the use of our citizens. Within this scope, we will offer implementations such as health nanotechnology, neural engineering, tissue and cell engineering for the benefit of our citizens.
- We will increase the share of health in GDP over 7% in 2015, 7.5% in 2019 and 8% in 2023.
- Our citizens will be able to access any kind of health services. Health expenditure per capita will be USD 1.000 in 2015, USD 1.500 in 2019 and USD 2.000 in 2023 for the most qualified, modern, rapid and widely distributed health services. However this increase will not create a burden on citizens because the efficiency gained in public sphere in the last 8 years by means of health reforms will increasingly continue. In other words, comparing with other countries providing services of similar quality, we will provide services with higher quality but with less expenditure.
- We ensured the financial sustainability of our health care system today and we will carry on the path by strengthening its structure. We will ensure the sustainability of a health care system in which no citizen goes without health services due to monetary reasons.
- Turkey will now be one of the leaders determining the global health agenda by improving “Health Transformation” which is a global authentic model. We will improve and enhance our world-wide cooperation in health.
- As a conclusion, we aim at a Turkey that pioneer global change by focusing on serving people rather than going along with global change.

TURKEY'S HEALTH TRANSFORMATION PROGRAM



BIBLIOGRAPHY

Türkiye Cumhuriyeti Anayasası, 1982

224 Sayılı Sağlık Hizmetlerinin Sosyalleştirilmesi Hakkında Kanun Gerekçe Metni, 1961.

224 Sayılı Sağlık Hizmetlerinin Sosyalleştirilmesi Hakkında Kanun Metni, 1961.

Aile Hekimliği Türkiye Modeli. Sağlık Bakanlığı, Ankara, 2004

Aydın S. Hayata Yüksekten Bakabilmek, Medipolitan Eğitim ve Sağlık Vakfı Yayınları İstanbul, 2008

Çetin E. İstanbul'da yaşayan çocuk ve adolesanlarda anemi prevalansının araştırılması (Tez), İstanbul Üniversitesi Tıp Fakültesi, 1997

Demir eksikliği araştırması, Sağlık Bakanlığı – Hacettepe Üniversitesi, 2008, Ankara

Demirel H. 1946-1960 Arası Sağlık Politikaları ve Sağlıkta Planlama, Medipolitan Eğitim ve Sağlık Vakfı Yayınları İstanbul, 2008

Dünya Sağlık Örgütü. 21. Yüzyılda Herkese Sağlık. WHO: Copenhagen: WHO Publications; 1998

Evliyaoğlu N, Altıntaş D, Atıcı A. Anne sütü, inek sütü, formül mama ile beslenenlerde demir durumu, Türkiye Klinikleri Pediatri Dergisi 1996-5

Fişek N. Halk Sağlığına Giriş, Hacettepe Üniversitesi Yayını, 1985

Genel Sağlık Sigortası ve Sağlık Bakanlığının Değişen Rolü, Sağlık Bakanlığı, Ankara, 2007

Gökçay G, Kılıç A. Çocuklarda demir eksikliği anemisinin epidemiyolojisi, Çocuk Sağlığı ve Hastalıkları Dergisi, 2000

Herkese Sağlık, Türkiye'nin Hedef ve Stratejileri-Sağlık 21. Sağlık Bakanlığı Yayınları, 2001

Improving Health Systems: The Contribution of Family Medicine. WONCA; 2002

Lozoff B, Andraca I, Castillo M, Smith B. Behavioral and developmental effects of preventing iron-deficiency anemia in healthy full-term infants. Pediatrics, 2003

OECD Health Data, OECD Publications, 2001

ÖSYM Yıllıkları

Özkan B ve ark. Prevalance of vitamin deficiency rickets in the eastern part of Turkey, Eur J Pediatr, 2008

Özsarı S.H. Cumhuriyet Dönemi Sağlık Politikaları ve Sağlıkta Yeniden Yapılanma, Türkiye Sorunlarına Çözüm Konferansı-II "Cumhuriyet'in Kazanımları" 26-28 Ekim 1998 Ankara, Ankara Üniversitesi Basımevi, Ankara, 2000

- Roberts M.J, Hsiao W. Getting Health Reform Right, 2008
- Sağlık 2003, Sağlık Bakanlığı Faaliyet Raporu, Sağlık Bakanlığı, Ankara, 2004
- Sağlık 2004, Sağlık Bakanlığı Faaliyet Raporu, Sağlık Bakanlığı, Ankara, 2005
- Sağlık 2005, Sağlık Bakanlığı Faaliyet Raporu, Sağlık Bakanlığı, Ankara, 2006
- Sağlık 2006, Sağlık Bakanlığı Faaliyet Raporu, Sağlık Bakanlığı, Ankara, 2007
- Sağlıkta Dönüşüm Programı, Sağlık Bakanlığı, Ankara, 2003
- Sağlıkta e-Dönüşüm, Sağlık Bakanlığı, Ankara 2007
- Sağlıkta Performans Yönetimi ve Performansa Göre Ödeme Sistemi. Sağlık Bakanlığı, Ankara 2005
- Türkiye Cumhuriyeti Dokuzuncu Kalkınma Planı 2007-2013, DPT, Ankara, 2006
- Ulusal Sağlık Hesapları, 2003
- Yalçın SS, Yurdakök K, Açıkgöz D, Özmert E. Short-term developmental outcome of iron prophylaxis in infants. *Pediatr Int*, 2004
- Sağlık Bakanlığı Stratejik Plan 2010-2014, Sağlık Bakanlığı, Ankara, 2010
- Türkiye Sağlıkta Dönüşüm Programı ve Temel Sağlık Hizmetleri, Kasım 2002-2008, Sağlık Bakanlığı, Ankara, 2008
- İlerleme Raporu, Türkiye Sağlıkta Dönüşüm Programı, Ağustos 2008, Sağlık Bakanlığı, Ankara, 2008
- Türkiye'de Sağlık Eğitimi ve Sağlık İnsangücü Durum Raporu, Haziran 2010, YÖK, Ankara, 2010
- Türkiye Cumhuriyeti Sağlık Bakanlığı, Sağlık İstatistikleri Yıllığı 2008, Sağlık Bakanlığı, Ankara, 2010
- Yataklı Tedavi Kurumları İstatistik Yıllığı 1996, Sağlık Bakanlığı, Ankara, 1997
- Yataklı Tedavi Kurumları İstatistik Yıllığı 1997, Sağlık Bakanlığı, Ankara, 1998
- Sağlık İstatistikleri 1996, Sağlık Bakanlığı, Ankara, 1997
- Sağlık İstatistikleri 1997, Sağlık Bakanlığı, Ankara, 1998
- Sosyal Sigortalar Kurumu 1996 yılı İstatistik Yıllığı, Sosyal Sigortalar Kurumu Genel Müdürlüğü, Ankara, 1997
- Sosyal Sigortalar Kurumu 1997 yılı İstatistik Yıllığı, Sosyal Sigortalar Kurumu Genel Müdürlüğü, Ankara, 1998
- Türkiye'de Anne ve Çocukların Durum Analizi 1996, UNICEF-Sağlık Bakanlığı, Ankara, 1996

OECD Sağlık Sistemi İncelemeleri TÜRKİYE, OECD-Dünya Bankası, 2008

Making Reform Happen, Lessons from OECD Countries, OECD, 2010

The European Health Report 2009, Health and Health Systems, WHO, 2010

Türkiyede Verem Savaşı 2010 Raporu, Sağlık Bakanlığı, Ankara, 2010

İnternet Kaynakları

1. www.saglik.gov.tr
2. 58. Hükümet Programı <http://www.byegm.gov.tr/hukümetler/58hukümet>
3. 59. Hükümet Programı <http://www.byegm.gov.tr/hukümetler/59hukümet>
4. 60. Hükümet Programı, <http://www.byegm.gov.tr/hukümetler/60hukümet>
5. Acil Eylem Planı, www.akparti.org.tr/acileylem.asp
6. Dünya Sağlık Örgütü web sayfası www.who.int
7. Kamu Yönetimi Temel Kanunu Tasarısı, <http://www.tbmm.gov.tr/sirasayi/donem22/yil01/ss349m>
8. Kamu Hastane Birlikleri Kanunu Tasarısı, <http://www.tbmm.gov.tr/sirasayi/donem23/yil01/ss493.pdf>