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# Turkey Health System Performance Assessment 2011

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May 2012

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## ABSTRACT

This report summarizes the main findings of an assessment of the performance of the Turkish health system, which was carried out by the Ministry of Health of Turkey with technical and financial support from the World Health Organization, Regional Office for Europe and from the World Bank. The assessment was carried out between July 2009 and August 2011 and contributed to the efforts pursued by the Government of Turkey to strengthen the capacities of the Ministry of Health for effective stewardship of the health system.

This report presents an assessment of the performance of the Turkish health system against a number of key performance dimensions: good health; equity in financial contribution; healthy lifestyles and environment; efficient and comprehensive personal health services (access, quality, use); improved service provision; improved resource generation; increased efficiency; adequate financing and strengthened stewardship, leadership and governance. An executive summary as well as scorecards and key facts for each performance dimension are included in this report.

## Keywords

OUTCOMES AND PROCESS ASSESSMENT (HEALTH CARE)

HEALTH SYSTEMS PLANS- organization and administration – economics

HEALTH SERVICES ACCESSIBILITY

HEALTH STATUS

QUALITY OF HEALTHCARE

HEALTH PROMOTION

PROGRAM EVALUATION

GUIDELINES

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## LIST OF ABBREVIATIONS

BMI	body mass index
CHD	coronary heart disease
DaPT	diphtheria, pertussis, tetanus
DOTS	directly observed treatment, short-course
DRG	diagnosis-related group
EU	European Union
EBM	evidence based medicine
GATS	Global Adult Tobacco Survey
HSPA	health system performance assessment
HTP	Health Transformation Programme
HTP-I	Health Transformation Programme phase I (2003–2008)
HTP-II	Health Transformation Programme phase II (2009–2014)
ICU	intensive care unit
IGME	Inter-agency Group for Child Mortality Estimation
IHD	ischaemic heart disease
IMR	infant mortality rate
KETEM	Centre for Early Diagnosis of Cancer
MRI	magnetic resonance imaging
MDGs	Millennium Development Goals
M&E	monitoring and evaluation
MMR	maternal mortality ratio
NCDs	non-communicable diseases
NGO	non-governmental organization
NUTS	nomenclature of units for territorial statistics
OECD	Organization for Economic Co-Operation and Development
PCP	pharmacovigilance contact point
PHC	primary health care
SD	standard deviation
SSI	Social Security Institute
TB	tuberculosis
TDHS	Turkish Demographic Health Survey
TURKSTAT	Turkish Statistical Institute
TUSAK	Ministry of Health/School of Public Health
U5MR	under-5 mortality rate

## Foreword

The Ministry of Health of Turkey has been continuously improving its position as a public authority which formulates policies and regulates standards, monitoring and supervising both within the Health Transformation Program (HTP) that has been under implementation since 2003. In this process, the vision of the Ministry of Health guides and facilitates effective, efficient and equitable use of the resources allocated for health care.

Monitoring the impacts on health outcomes of the Turkey Health Transformation Program - a quite comprehensive sectoral programme aiming to improve governance, efficiency and quality in the health care sector - is critical to further boost the successful implementation and strengthen weaknesses. The Turkey Health Transformation Program, which has been developed on the basis of theoretical knowledge available in the literature and up-to-date case examples from various countries, has been concluded in just eight years – a very short time period – and has proved to be a good example of knowledge, competence and experience with its successful outcomes.

For decades, countries throughout the world have made intense efforts to determine the best possible methods for structuring and adapting health-care systems with the aim of achieving true and sustainable improvement. Today, these countries are approaching consensus on the need for better and stronger national healthcare systems in order to ensure better health outcomes. As a result, measuring and monitoring the performance of health-care systems have proved to be an inevitable obligation for better decision-making among actors in the health-care system, better administrative and political control over public services, and more efficient financing and accountability.

Turkey Health System Performance Assessment (HSPA) is a concrete step which Turkey took in conformity with the Tallinn Charter that aims to empower the capacity of the Member States of the WHO Regional Office for Europe to regularly monitor and report health care systems' performance. We believe that the study, in the context of transparency and accountability, will prove to be useful for all actors involved in the health care system.

**Professor Dr Recep Akdağ**  
**Minister of Health**



# HEALTH SYSTEM PERFORMANCE ASSESSMENT – AN OVERVIEW

## Introduction

The health of the population is always a national priority: government responsibility for this is continuous and permanent. How well a health system performs depends on how well it achieves the goals for which it should be held accountable. To explain the reasons behind good or poor performance, one needs to look at how well a health system is carrying out its various tasks: service provision, resource generation, financing, and stewardship.

In recent years health authorities in the WHO European Region have shown growing interest in health system performance assessment (HSPA) as a governance tool. WHO's work aims to support the development of systematic approaches to monitor performance in countries in a way that allows comparison over time within individual systems, across different levels of a system, and between health systems.

The purpose of HSPA is to empower decision makers by providing them with reliable information for policy and system development, and to empower the public with information relevant to their well-being. HSPA is a country-owned process that allows the health system to be assessed holistically, a “health check” of the entire health system. It uses a limited number of statistical indicators to measure health outcomes and assess health strategies or functions of the health system.

HSPA has been used to build a common vision of the priorities for strengthening health systems, to provide a platform for dialogue between health programmes and between sectors and to create an understanding of how joint actions affect health outcomes. Moreover, HSPA helps policy-makers and politicians ensure accountability and liability for their decisions as they work towards better, more equitable health outcomes as well as other health system objectives such as productivity, financial protection and responsiveness.

## Background and objective of HSPA in Turkey

In Turkey there is a strong rationale for the Ministry of Health to adopt a systematic approach to HSPA. Indeed, the Ministry has been implementing the health transformation programme (HTP) aimed at improving the governance, efficiency and quality of the Turkish health sector, and the 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 the health transformation programme phase I (HTP-I). This has become even more important following the development of the Ministry of Health Strategic Plan for 2010–2014 (1). This effort is part of ongoing reform of the public sector in Turkey that requires all sectors to establish five-year and annual strategic plans and budgets.

The Ministry of Health of Turkey, WHO Regional Office for Europe (WHO 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.



## Framework and process for the development of HSPA in Turkey

HSPAs should be embedded in national or subnational policy processes and based on country-specific performance frameworks. HSPA frameworks are aligned with national health plans and strategies or reform programs wherever possible. When conducting an HSPA, the first task is to identify the most relevant performance dimensions and describe how they relate to each other. Performance dimensions represent health systems outcomes, intermediary objectives and strategies (structure and process). They are often presented in the HSPA strategy map. The strategy maps help to keep the focus on the vision, while highlighting the interdependencies in the strategies implemented to achieve the outcomes. Each performance dimension is then populated with a set of indicators.

In Turkey, the Ministry of Health Strategic Plan for 2010–2014 and the two phases of the HTP (HTP-I and HTP-II) were the main sources used to identify priority objectives and strategies to establish the strategy map (Fig. 1). In Turkey, the strategy map was validated through a series of stakeholder workshops (consensus meetings). The main functions of the Turkish health system (stewardship, financing, resource generation and service provision) are given on the left of the illustration (Fig. 1); intermediate outcomes and final goals are on the right. The map builds on 9 performance dimensions and is populated with 61 performance indicators.

HSPA was carried out as a joint collaboration between the Ministry of Health/School of Public Health (TUSAK), WHO Europe and the World Bank. TUSAK took the lead in HSPA implementation, supported by capacity building interventions from WHO Europe and the World Bank.

The HSPA report in Turkey builds on national data complemented with available international data for comparisons. The Ministry of Health granted TUSAK the mandate to act as an information broker and to carry out periodic health-sector performance assessments. Each department within the Ministry collects data for its own purposes (primarily project management); TUSAK collates these data, places them within a systematic health system framework and then reports against that framework. In order to carry out this task, it was critical that TUSAK establish close coordination and collaboration with all Ministry of Health departments.

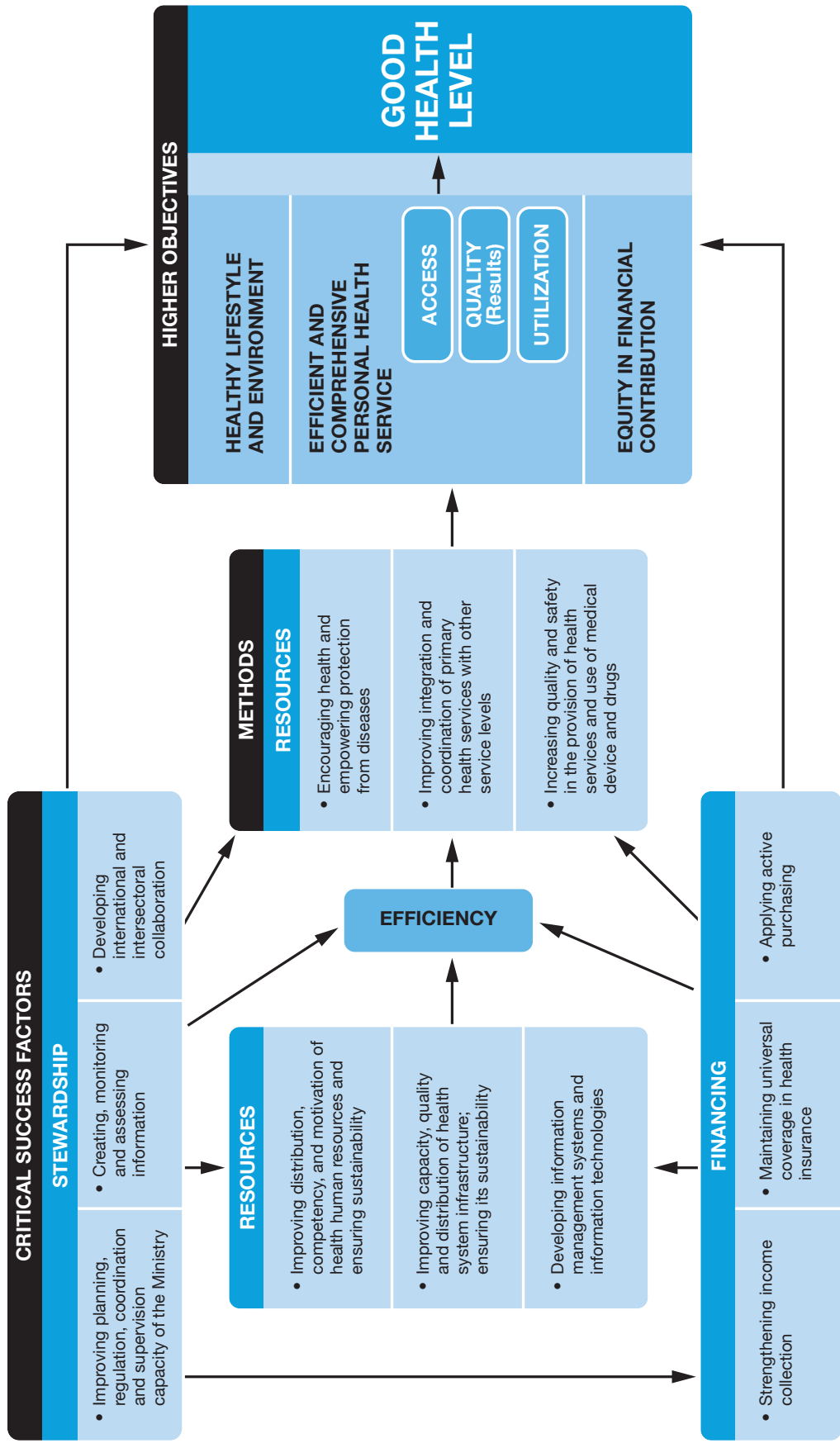
The process leading to the publication of the first HSPA report for Turkey was marked by wide participation and involvement of all relevant organizations (both within and outside the Ministry of Health) at each milestone: strategy map; indicator selection; development of indicator passports; and review of the first draft. This participatory process was designed to develop a culture of evaluation throughout the Ministry of Health in order to build shared ownership of the product, thereby increasing its impact and the sustainability of the process.

## Main findings

This section aims at understanding the health outcomes in light of the process and strategies implemented in the Turkish health system. The main findings on health outcomes for the population are therefore presented first. We then move backwards (or left) on the strategy map to try to explain these with the intermediate objectives (e.g. effective coverage) and structure and process (e.g. health financing reforms, strengthened stewardship and governance) which were put in place.

For ease of reading, the use of figures and references is limited in this section. Evidence to support the below statements is available in the ‘scorecard and key facts’ section at the end of this report. Results in the ‘scorecard and key facts’ are grouped into 9 performance dimensions and reported for 61 performance indicators.

Fig. 1. Strategy map for Turkish health system



Source: The Strategic Plan of the Ministry of Health, 2010-2014

While the scorecard presents the results in a purely descriptive way; the section below adds an analytical perspective. It looks at the results transversally to identify patterns across performance dimensions and provides a high-level overview of the entire health system and how it performs, pointing to overall directions for policy action. The detailed results and policy actions are described in an upcoming analytical HSPA report.

## **Good health; healthy lifestyle and environment; efficient and comprehensive personal health services**

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 period following the initiation of the HTP in 2002. However, it is unlikely that better health care services alone will enable Turkey to reach its full health potential. There is strong evidence that other social determinants (such as educational attainment) are major influences on health status (2).

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; the former is particularly notable as health gains have been achieved mostly through decreased mortality at earlier ages, particularly under the age of five. There has been a major continuous and linear improvement in life expectancy at birth in recent years in Turkey (2003–2010), with the gap between Turkey and rest of the European Region narrowing quickly. Improvements in life expectancy at birth were greater in Turkey than in the rest of the Region over the period of implementation of the HTP.

**The available data in this report suggest that very good results have been achieved in the control of communicable diseases.** The *National Strategic Plan for Strengthening the Surveillance and Control System for Communicable Disease in Turkey (2009–2013)* is now available and provides a solid basis to continue to tackle the communicable disease burden. 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 (34). Over the same period, the directly observed treatment short-course (DOTS) was implemented at a very fast pace. Recommended by WHO, this treatment method was piloted in 2003 and implemented nationwide in 2006. An innovative approach to DOTS using a combination of health services and social services has been piloted more recently. This pilot was made possible through collaboration between local authorities, NGOs and the Ministry of Health. It illustrates how intersectorial action can contribute 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. Since 2006 there has been significant success in expanding the immunization programme by adding four new antigens, and in decreasing inequalities in immunization coverage by increasing the proportion of provinces having  $\geq 90\%$  coverage with third dose of diphtheria, pertussis, tetanus (DaPT) vaccines to 97% in 2010 (19). 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 in since 2010 (19). Access to safe drinking water has been generalized in both urban and rural areas. Also, the connection of rural areas to the sewage system has increased substantially between 2003–2004 and 2007–2008. Results vary depending on the surveys (household budget survey or demographic health survey) but both sources indicate that 30% of rural population improved in terms of connection to a sewage system during this period (3).

**The picture for noncommunicable diseases (NCDs) however, is disturbing.** NCDs were the main causes of mortality in approx. 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 tackle 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 pose a public health threat although the trend shows a slight improvement. A decrease in the number of cities with very high measurements has resulted in less variability across Turkey but results for individual cities continue to vary over a wide range. The role of the Ministry of Health in leading health in 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, i.e. body mass index (BMI) >30, among adults in Turkey has increased sharply from one in five in 1998 (31) to one in three in 2010 (32). This is a general problem that constitutes a major public health issue in Europe and worldwide. In Turkey, 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 declined from 47% in the mid 1980s (29) to **27.4%** in 2008 (4) and 25.4% in 2010 (30). This represents a significant decrease, the largest in all Organisation for Economic Co-operation and Development (OECD) countries. However, Turkey continued to have one of the highest smoking rates in the OECD in 2007(14). Turkey became a 100% smoke-free country on 19 July 2009 – smoking is no longer permitted in indoor public places including the hospitality sector. The success of this smoking ban in all public places is reflected in the most recent data which show that exposure to second-hand tobacco smoke has decreased substantially since 2008. The gap between men and women decreased slightly between 2008 and 2010 but remains significant. Through a series of new regulations, Turkey, as signatory of the WHO Framework Convention for Tobacco Control (FCTC) in 2004, implemented most of the strategies presented in *MPOWER: A Policy Package to Reverse the Tobacco Epidemic*, which was developed by WHO to guide countries in tobacco control, making Turkey one of the leading countries in this field.

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. Easy access to health care services and the improving quality of health services have contributed to a decline in CHD mortality over the last eight years, despite the increasing CHD prevalence. Coronary heart disease mortality in Turkey is, however, still higher than in most European countries and monitoring of risk factors and implementation of multisectoral programmes are required.

Data on the prevalence, incidence and risk factors of NCDs in Turkey are still to be strengthened, building on studies limited in time and scope. It is necessary to develop an information system which will help to monitor these important trends. In addition, 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 (5). An Inter-agency Group for Child Mortality Estimation (IGME) report shows that remarkable improvements have been observed

on all indicators in Turkey, most significantly for infant mortality, from 66.2/1000 in 1990 to 34.1/1000 in 2000, 15/1000 in 2009 and 14 in 2010 (21, 22). The MDG 4 target for under-five mortality has been reached and surpassed and maternal mortality has also dropped. These positive results are associated with both the general improvement of the socioeconomic situation over the last twenty years in Turkey 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. The rates of infant mortality reported by the Turkish Statistical Institute (TURKSTAT) and the Ministry of Health are 13.1<sup>1</sup> and 14<sup>2</sup> infant deaths per 1000 live deliveries in 2009 and 10.1 (19) infant deaths per 1000 live deliveries in 2010. Smoothing methods used by the IGME to estimate infant and child mortality (five-year average and smoothing trends over an even longer period) do not capture the immediate impact of intensive interventions such as those of the HTP in Turkey. Interventions have been implemented to increase access to health-care services and to protect the most vulnerable, but health inequities still remain. Further improvement will be gained by tackling the gaps in maternal and child mortality observed between regions and provinces and by income and education level.

**Coverage of health services has improved greatly** in the years of the HTP's implementation. This improvement is marked for all tracers studied: immunization rate, cancer screening, antenatal care and newborn screening. In addition, prompt response time to emergency calls (within 10 minutes) for acute care has also been steadily improved. These positive results coincide with improved financial access (increased coverage of vulnerable populations 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 declining 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 narrowing the health gap between the sexes or in socioeconomic status.** In Turkey, females have a life expectancy at birth that is below the average for the European region but life expectancy at birth for males is in line with the regional average. 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 15 % of university graduates). This is generally true for women living in developing countries and is explained by women's lower economic power (4).

Evidence suggests a disturbing gap between men and women with regard to cardiovascular diseases and obesity. The latter requires further gender analysis as well as focused policy interventions. In addition, there is a concern 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 rapid intervention within these vulnerable populations. Similarly, mother and child health indicators continue to indicate a gradient – even if these have already somewhat decreased – according to income, educational level and, for the majority, between rural and urban areas. Regional disparities for mother and child health indicators are also striking, although they have reduced somewhat.

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1 Provided by TURKSTAT based on data from the Turkish Demographics Health Survey (TDHS), Published in the addendum to World Health Statistics 2011 ([http://www.who.int/whosis/whostat/WHS2011\\_addendum.pdf](http://www.who.int/whosis/whostat/WHS2011_addendum.pdf))

2 Provided by the Ministry of Health based on data from the infant mortality monitoring and reporting system, Published in the addendum to World Health Statistics 2011 ([http://www.who.int/whosis/whostat/WHS2011\\_addendum.pdf](http://www.who.int/whosis/whostat/WHS2011_addendum.pdf))

## Service provision; resource generation; efficiency;

The increase in NCDs, especially cardiovascular diseases and diabetes, has been targeted as a priority by the Ministry of Health. **Health promotion and disease prevention feature prominently in Phase II of the HTP.** 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 *Prevention and Control Program for Cardiovascular Diseases 2008* which focuses on the reduction of tobacco consumption and second hand smoking; prevention of obesity and unhealthy dietary habits; and raising awareness of the benefits of physical activity .

Strengthening 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.** The implementation of family medicine began in 2005 and was widespread throughout the country 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<sup>3</sup>. In support of these studies, the two HSPA indicators relative to PHC indicate that PHC has been strengthened with relatively more examination at PHC level and fewer referrals to higher levels of care.

Health care services have become accessible to the entire population (see section on financial protection). The confidence of the population **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. At the moment, there is only limited evidence on the quality and safety of health-care services and pharmaceuticals provided and it should become a policy priority to strengthen quality monitoring and adverse event reporting mechanisms.

A higher demand for health care services has been driven by facilitated access, improved confidence in the public health sector, and targeted incentives to use essential health services. The increased demand for health-care services had to be met through a very rapid rise in capacity and productivity. This was especially observed in public hospitals and in PHC. The impact 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 Phase I of the HTP, 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. Therefore, **financial and non-financial incentives to increase the satisfaction and productivity of health workers are implemented** while at the same time substantial investments are being made to increase the number of new graduates. The Performance Based Supplementary Payment System for health workers in public hospitals is a cornerstone of such incentive schemes. This complex system was crafted to provide incentives to both individuals and organizations. It combines financial rewards with emulation to foster simultaneous improvements in productivity, technical quality, working conditions and patient centeredness. This

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3 Unpublished Atun R. (at al) 2010 Monitoring and Evaluation of Family Medicine Reforms in Turkey.



system has brought a major reduction in part-time private practice from 89% to 7% (7) between 2002 and 2010 and a substantial increase in the income of specialists. The system is currently being studied by WHO Europe.

## Health financing, equity in financial contribution

Prior to the implementation of HTP in 2003, Turkey faced four key challenges in health financing: (i) public spending on health was lower than in 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 (8). 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.** Public spending on health as a percentage of general government expenditure has been increasing steadily – from 8% in 2000 to almost 13% in 2008 (50% increase over almost a decade) (53, 54). 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.** A major focus of the HTP was to consolidate the various social health insurance schemes into a single scheme managed by the SSI. A landmark Social Security Law mandating that the schemes be integrated was adopted in 2006. 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. It is mandatory for all Turkish citizens 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, transitional purchasing arrangements have emerged. Currently all Ministry of Health hospitals have the Performance Based Supplementary Payment System 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 increased from 84% in 2000 to 87% in 2004 before rising sharply to achieve close to full coverage (95%) in 2010 (56). 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 including drugs were included under the Green Card (non-contributory scheme for vulnerable populations) in 2004. Countries seeking to expand universal coverage through a health insurance system may draw important lessons from the Turkish experience. Coverage only of inpatient health expenditures will not include outpatient treatment and pharmaceutical expenditures which will bring about out-of-pocket expenditure, particularly for pharmaceuticals. 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.

## Stewardship; 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“ (9)**

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. In many ways the HTP reflects good practice in the development and implementation of a major health sector reform (including universal health insurance coverage) in an OECD country (8). This HTP is also the product of strong leadership of the Minister of Health (10).

**The interdependence of health system functions calls for a coherent approach and coordinated action.** Strong and stable leadership by the Ministry of Health 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 populations); 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.

As stated in the *WHO Tallinn Charter: Health Systems for Health and Wealth (11)*, health systems need to demonstrate good performance to sustain public commitment to health investments. This is clearly illustrated in Turkey where there have been major investments during the two phases of the HTP and the Ministry of Health Strategic Plan calls for widespread implementation of performance based budgeting which will be completed by the end of 2014. Restructuring of public financial management should help to establish accountability, financial transparency and discipline as well as cost effectiveness in the public sector.

The process of developing an HSPA report for Turkey has highlighted the **fragmentation and gaps in information systems**. These made it difficult to gather information on some crucial health indicators. In particular, it was not possible to disaggregate results for sex, income quintile or education on many indicators, and comparisons across provinces or regions had to be used as proxy. This experience points to the opportunity to establish a comprehensive health and gender equity surveillance system (2). This system is required in order to tackle the possible health and gender gaps identified above.

The Ministry of Health recognizes the importance of continuing to lead **intersectoral action towards improved health and to increase the awareness of all sectors of their health responsibility**. 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 wishes to strengthen its **international cooperation** and to disseminate the lessons learned and results achieved in the Turkish health reform process to support other countries in their reform processes. In addition, quality improvement achieved within the Turkish sector will **promote international health tourism**.

## Conclusion and Next steps

This first HSPA study reveals that remarkable progress has been observed for health outcomes— life expectancy, control of communicable diseases and maternal and child mortality rates have improved significantly. There have also been significant improvements in coverage – particularly of preventive services. Strong and committed leadership has enabled the introduction of a number of important reforms such as the introduction of family medicine and universal health coverage.

HSPA has also facilitated identification of areas that require further improvement. For example, future efforts should focus on continuing reducing the equity gaps for certain indicators among regions and among people of different socioeconomic and educational status. The implementation of HSPA at sub-national level would contribute to identifying regional disparities and serve as a platform for dialogue between provincial and central authorities on how to address these equity challenges.

Sustainability of the HSPA is another area of focus. It should be noted that HSPA is a dynamic and continuous process that requires regular reporting intervals with a timeframe of one or two years. Institutionalization of the HSPA process supposes not only regular reporting but also, most importantly, embedding performance assessment in policy and management of the system. It is one of the available tools to inform policy by evidence, and to support intersectoral dialogue, transparency and accountability to steer the Turkish health system towards excellence. It should be complementary to other tools such as in-depth evaluation of components of the reforms and monitoring and evaluation of strategic planning.

# SCORECARDS AND KEY FACTS

## Introduction

HSPA reports usually include scorecards to identify at a glance, among all indicators, which might require further attention. The scorecard aims to highlight potential areas for further scrutiny; detailed results are provided in the respective chapters of an upcoming analytical report. It is planned to discuss these with a wide range of national stakeholders in order to identify areas that require in-depth analysis in order to understand the scope of, and policy options for, particular problems.

Performance against each indicator has been assessed in terms of the average level for the country (first three columns) and its distribution (second three columns). The current comparative level (column 1) is assessed by comparing the indicator to selected comparator countries,<sup>4</sup> the Strategic Plan target for 2014 (where available) or (where relevant and available) to an accepted norm. The national trend (column 2) is assessed by looking at the evolution over time: improving, stable or deteriorating. The combination of current comparative level (column 1) and the national trend (column 2) enables areas to be identified as “on track”, “further scrutiny needed” or “action needed” (column 3).

A similar evaluation scheme is used for the distribution columns but with the focus on gaps (columns 4, 5, 6). The indicator is assessed “poor” on the distribution component if there is some evidence of a gap between men and women in socioeconomic status or between regions (column 4). The evolution of the gap over time is also examined (column 5) – has the gap been increasing or decreasing? Appraisal of the scope of the gap and of its evaluation serves as a basis for the global assessment of the distribution component (column 6). Both the average and the trend components are combined in a similar way in order to provide an overall assessment of each component (columns 3 and 6), as shown in Tables 1 and 2 below.

Assessments involve some professional judgment, especially when data are not fully available. In order to limit subjectivity, color grading (green, yellow, red or grey) was done by independent experts. The results were then compared and discrepancies resolved. It is critical however, to recall that the colors are only “pointers” and not a definite evaluation. Indicators should not be seen in isolation but as a pattern. The key facts are presented below the scorecard and serve as supporting information. For each indicator the key data are presented.

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<sup>4</sup> Argentina, Brazil, Bulgaria, Czech Republic, Germany, Mexico, Poland, Romania, South Africa, Thailand and United Kingdom of Great Britain and Northern Ireland. Also averages for groups of countries (EU, OECD, upper-middle income).

**Table 1. Scheme for interpreting current comparative level and the national trend components into an overall assessment**

<b>NATIONAL TREND</b>	Trend is positive: results improving steadily over time	No change in results; results are variable over time; or results cannot be assessed	Trend shows deterioration: results worsening over time
<b>COMPARATIVE LEVEL</b>			
Result at or above target or towards top of comparator countries	On track	On track	Further scrutiny needed
Result below target; within average of comparator countries; or cannot be assessed	On track	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">Analysis required</div> <div style="width: 45%;">Further scrutiny needed</div> </div>	Requires immediate attention (action needed)
Result well below target or towards bottom of comparator countries	Further scrutiny needed	Requires immediate attention (action needed)	Requires immediate attention (action needed)

■ Good  
■ Fair  
■ Poor  
■ No data/info

**Table 2. Scheme for interpreting the current gap and evolution of the gap into an overall assessment**

<b>EVOLUTION OF GAP</b>	Reduction of (any) gap	Gap increasing slightly; no consistent trend; or no data to highlight potential gap	Gap increasing
<b>CURRENT GAP</b>			
No gap between sexes, age categories, socioeconomic status or region	On track	On track	Further scrutiny needed
Minor gap or no data available to provide evidence on inequalities	On track	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">Analysis required</div> <div style="width: 45%;">Further scrutiny needed</div> </div>	Requires immediate attention (action needed)
Substantial gap	Further scrutiny needed	Requires immediate attention (action needed)	Requires immediate attention (action needed)

■ Good  
■ Fair  
■ Poor  
■ No data/info

# 1. Good Health

The strategy map acknowledges that attainment of good population health is a fundamental goal of the Turkish health system. As stated in the Strategic Plan: “Well being and health will be increased and health inequalities will be reduced.” The more specific objectives are a decrease in the prevalence, morbidity and mortality of notifiable communicable disease and NCDs as well as reduction in inequalities and protection of people with special needs. In order to achieve these objectives, the Ministry of Health embarks on programmes to encourage citizens to lead a healthier lifestyle in a healthy environment. It also works to improve quality, effectiveness, availability and use of services while reducing inequalities in access. These strategic priorities reflect a comprehensive approach to protecting, maintaining and improving the health of the population with a focus on reducing inequalities and protecting people with special needs. In particular, mother and child health is recognized as an area of great importance. This has prompted a number of important reforms in the field and is evidenced by the fact that four out of the nine indicators focus on mother and child health. In addition, two indicators relate to communicable diseases and the other two relate to NCDs and are amenable to health promotion and intersectoral action.



## Rationale and position in the strategy map

### Performance level

Indicator title	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall assessment	Current gap	Evolution of gap	Overall assessment
1. Life expectancy (at birth, at 65, probability of dying between 15 and 60)	●	●	On track	●	●	On track
2. Coronary heart disease (CHD) mortality	●	●	Action needed	●	●	Further scrutiny needed
3. Road traffic injuries, fatalities	●	●	Further scrutiny needed	●	●	Analysis required
4. HIV/AIDS incidence	●	●	Further scrutiny needed	●	●	Further scrutiny needed
5. Malaria cases	●	●	On track	●	●	On track
6. Maternal mortality ratio (MMR)	●	●	Further scrutiny needed	●	●	On track
7. Infant mortality rate (IMR)	●	●	On track	●	●	Further scrutiny needed
8. Under-5 mortality rate (U5MR)	●	●	On track	●	●	Further scrutiny needed
9. Stunting (under-5 HFA index under 2SD) <sup>a</sup>	●	●	Further scrutiny needed	●	●	Further scrutiny needed

<sup>a</sup> Children under 5 years of age with a Height for Age (HFA) under 2 Standard Deviation (SD) in a reference population.

## Key facts

Average at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
<p>1. Life expectancy</p> <p>1a. Life expectancy at birth steady improvement (from 67.4 years in 1990<sup>5</sup>, to 71.0 in 2000<sup>6</sup> and 74.3 in 2010 (12) likely to meet the Strategic Plan target by 2014 but still below OECD and EU average (13). Health gain achieved through decrease in mortality at earlier age. Three years gained between 2000 and 2010 is remarkable in comparison to all other countries in the region or middle-income countries (+2 years over the same period).</p> <p>1b. Life expectancy at age 65 (13): 15.9 years for women and 14.0 for men in 2009. Less pronounced increase than that observed in life expectancy at birth (1.6 years for females and 1.2 for males between 1990 and 2009).</p> <p>1c. Probability of dying between 15 and 60: This is a better proxy for mortality amenable to health care. On this indicator, Turkey compares well with an accelerated improvement between 2000 and 2008, i.e. in 1990, 2000 and 2008 respectively: 185, 150 and 106 in Turkey (15); 157, 165, 149 in Europe (15); and 195, 206 and 191 in upper-middle income countries (15).</p>	<p>Difference in life expectancy between men and women (5 years at birth in 2010, 1.9 at 65 in 2009) smaller than in many developed countries (7 on average at birth) but higher than in developing countries (3 at birth). Gap has widened over time but life expectancy at birth still lower than the European Region average for women but in line with this average for men. Further analysis required to determine whether there is gender inequality (12).</p>
<p>2. MEDCHAMPS reports increase in risk factors for CHD (16). Using 1998–2010 data, a cohort study (17) estimates CHD incidence in men and women at around 19 per 1000 person-years from newly developed CHD in 506 persons. The same study reports prevalence of CHD at 3.8% (per 1000 person-years) in 1990, increasing to 6% according to the 2007/2008 findings. CHD mortality rate in the 35+ age group increased from 335/100 000 in 1988 to 417/100 000 in 1995 but decreased by 35% between 1995 and 2008 – to 270/100 000 in 2008 (16). Coronary mortality rates three times higher than comparator countries, placing it lower in the ranking.</p>	<p>CHD incidence shows no significant gap between men and women (18.1 in females, 19.0 in males). Regional gaps significant in CHD incidence, varying between 15–30%. Incidence rates highest in South-eastern Region (women 31%, men 20.5%) and Black Sea Region (women 21.3%, men 26.1%) (17). Higher mortality in men than in women (293/100 000 in males, 250/100 000 in females) although the difference narrowed slightly between 2004 and 2008 (16).</p>
<p>3. Road traffic injuries, fatalities: important increases in number of vehicles (+40%) and accidents (+96%) between 2004 and 2009. Over the same period, moderate increase in injuries (+48%) and slight decrease in deaths (-2.3%)<sup>7</sup>. Indicates that probability of dying on site in case of accident has decreased significantly. No valid international comparisons because of different definition (on-site fatality vs. 30-day fatality).</p>	<p>Majority of all deaths in 25–64 age group. Injuries slightly increased for the young population and specifically for the 21–24 age group<sup>8</sup>.</p>
<p>4. Extremely low number of newly diagnosed HIV+ and AIDS cases per year (33 in 1990, 158 in 2000 and 627 in 2010).<sup>9</sup> Lowest incidence (0.09 per 100 000 in 2010) (19) among all comparator countries (18).</p>	<p>Majority (70%) of those registered with HIV/AIDS in Turkey are males (as in other regions of the world, except sub-Saharan Africa)</p>
<p>5. Dramatic drop in malaria cases. Already meeting MDG6 for 2015 and providing solid basis for reaching Strategic Plan goal of malaria elimination by 2012 (84 in 2009, 38 of which were autochthonous cases) (19)<sup>10</sup>. No new autochthonous malaria case reported in 2010. No case fatality over the last five years.</p>	<p>Close to elimination everywhere.</p>

5 TURKSTAT ([http://www.tuik.gov.tr/PrelstatistikTablo.do?istab\\_id=1218](http://www.tuik.gov.tr/PrelstatistikTablo.do?istab_id=1218) accessed 24 June 2011)

6 TURKSTAT ([http://www.tuik.gov.tr/PrelstatistikTablo.do?istab\\_id=1218](http://www.tuik.gov.tr/PrelstatistikTablo.do?istab_id=1218) accessed 24 June 2011)

7 TURKSTAT ([http://www.tuik.gov.tr/PrelstatistikTablo.do?istab\\_id=362](http://www.tuik.gov.tr/PrelstatistikTablo.do?istab_id=362) accessed 24 June 2011)

8 TURKSTAT ([http://www.tuik.gov.tr/PrelstatistikTablo.do?istab\\_id=363](http://www.tuik.gov.tr/PrelstatistikTablo.do?istab_id=363) accessed 24 June 2011)

9 General Directorate of Primary Health Care Services, Control of Communicable Diseases Head of Dept. data 2010.

10 Calculated from Malaria Control Head of Department data.

Average at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
<p>6. MMR: The most recent international estimate reports MMR as 23 in 2008 (21). National reports show prominent decrease from 70/100.000 live births in 1998 to 18.4/100.000 live births in 2009 and 16.4 in 2010 (19).<sup>11</sup> MDG (&lt; 25/100.000 live births) already exceeded. Within average of comparator countries but many of them are performing much better. Turkey is reported to be fourth country with its annual decline of 6% between 1990 and 2008 among fourteen other countries achieving annual decline of 5.5% or more (21).</p>	<p>MMR: regional differences but gaps are closing fast especially in two regions – North-eastern Anatolia and Eastern Black Sea. Despite closing gap, still highest MMR in West Marmara by 2010.<sup>12</sup> (19)</p>
<p>7. IMR: Inter-agency Group for Child Mortality Estimation database estimates (22) show steady and substantial drop in IMR since 1990 (66.2/1000 in 1990 to 34.16/1000 in 2000 and 15/1000 in 2009)The decline is sharper than for comparator countries over this period. In addition, national point estimates show an even more abrupt drop over recent years. National data projections for 2009 are 14/1000 (12) or 13.1/1000 (20) (depending on the source) and 10.1/1000 in 2010 (19). Given intensive efforts to tackle infant mortality in Turkey over the last five years, a decline is compatible with the interagency estimates. Inter-agency estimates represent average for the past five years (for instance, 2004 household survey estimate represents 2000–2004 average), further smoothed through regression. The interagency method used shows a steady decline but does not mirror the nationally reported dramatic fall in IMR over the last eight years. This method is more robust for comparisons and continuous trends but is less able to capture abrupt changes in rates. Well advanced for achieving the Strategic Plan target set for 2014 – below 10/1000.</p> <p>8. U5MR: similar findings to IMR. Interagency estimates show steady decline – 80/1000 in 1990 to 43/1000 in 2000 and 19/1000 in 2009 (22). National estimates provide a similar value of 17/1000 in 2009 and a sharp decrease to 13/1000 in 2010 down from 61/1000 in 1993, 52/1000 in 1998 and 37/1000 in 2003 (19). As explained above, variations may be due to differences in methodology. The interagency method used tends to smooth dramatic trends over time.</p>	<p>Analysis by socioeconomic, rural/urban and education level possible for three indicators in household surveys (IMR, U5MR, and stunting). Major disparities among groups for all three indicators, especially for stunting with important challenges especially related to maternal education level. Narrowing in rural-urban gap over 1993–2008 (23,26).</p> <p>U5MR shows wide regional differences, almost twice higher in Eastern (50%) compared to Western and Central regions while gap has been closing over 1989–2008 (23-26). Regional differences prominent with higher IMRs in Middle-east and South-eastern Anatolia (around 14%) in 2010 (19). Regional gaps for IMR<sup>13</sup> narrowing over 2007–2010.</p> <p>IMR and U5MR decrease proportionally with education level (41, 24 and 13 per 1000 respectively for IMR and 53, 29 and 21 respectively for U5MR for households with no education/ primary school incomplete, first level primary completed, second level primary and above). Occurrence of mortality at early age increases greatly in poorest or low-income quintiles (around 2.5 times on both indicators) in comparison to all three other income quintiles (23-26).</p>
<p>9. Stunting: significant improvement from 19% in 1993 to 10% in 2008 (23-26). Highly likely to achieve Strategic Plan Target for 2014 (less 7%). Performs at average of comparator countries.</p>	<p>Probability of stunting decreases proportionally with income (2.1, 2.5, 7.9, 10.8 and 22.0 per 100). Occurrence of stunting greatly increases with rurality (X2.3) or when the mother has no education or has not completed primary level (X3), in comparison to any other educational level (23-26)</p>

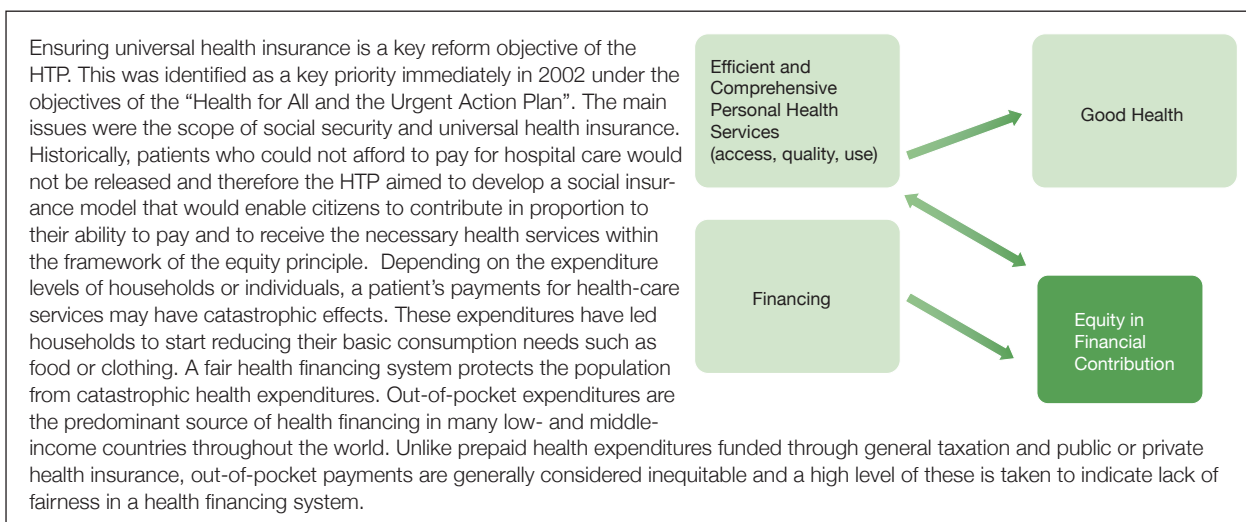
11 Calculated from General Directorate of Mother and Child Health and Family Planning data.

12 Calculated from General Directorate of Mother and Child Health and Family Planning data.

13 Calculated from General Directorate of Mother and Child Health and Family Planning data.

## 2. Equity in financial contribution

### Rationale and position in the strategy map



### Performance level

Indicator title	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall assessment	Current gap	Evolution of gap	Overall assessment
10. Households with catastrophic health expenditures	●	●	On track	●	●	On track
11. Out-of-pocket payments	●	●	On track	● <sup>a</sup>	●	No judgment on fairness

<sup>a</sup> Distribution by expenditure group is stable in time; no judgement on fairness of the observed differences between richer and poorer.

## Key facts

Average at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
<p>10. Sharp decrease in percentage of households incurring catastrophic health expenditures over the course of the implementation of the HTP (from 0.75% in 2003 to 0.37% in 2008 at 40% capacity to pay threshold).<sup>14</sup> Compares favorably with many of the comparator countries but further improvement needed to match EU countries (Germany and United Kingdom below 0.1%) (27).</p>	<p>Analysis by expenditure quintile shows that a larger share of households in the highest expenditure quintile incurs catastrophic health expenditures. This observation calls for analysis to understand the reasons for this result. Differences in expenditure groups were more prominent in 2003–2005 but smoothed out in 2008 (0.38 in the lowest quintile, 0.72 in the highest). Rural households face 2.5 times more catastrophic health expenditures than urban residents. Households comprising older people or people with disabilities are at greater risk of incurring catastrophic health expenditures.<sup>15</sup></p>
<p>11. Slight decrease in the share of out-of-pocket payments in total household consumption expenditures (2.2% to 1.9%) between 2003 and 2008. This represents a sharp increase in absolute terms (1.4 billion to 10 billion Turkish lira).<sup>16</sup> Share of out-of-pocket payments on pharmaceuticals (37.6% to 30%), basic hospital services (11.3% to 9.4%) and dental services (13% to 11.6%) declined between 2002 and 2006 but increased to 31.3%, 13% and 12.6% respectively between 2006 and 2009. In contrast, the share of curative equipment and supplies (5.2% to 6.6%), medical services (22.3% to 24.8%) and other medical services (10% to 14.8%) increased between 2002 and 2006 but declined to 6.6%, 22.5% and 12% respectively between 2006 and 2009 (28).</p>	<p>Analysis by expenditure quintiles highlights that richer people pay a larger proportion of out-of-pocket payments than those who are poorer.<sup>17</sup> This result is expected and it is not possible to make a judgment on fairness (regressive or progressive payment) based on these data.</p>

14 TUSAK. Unpublished study based on Turkish Statistical Institute Household Budget Survey dataset (2003–2008), 2011.

15 TUSAK. Unpublished study based on Turkish Statistical Institute Household Budget Survey dataset (2003–2008), 2011.

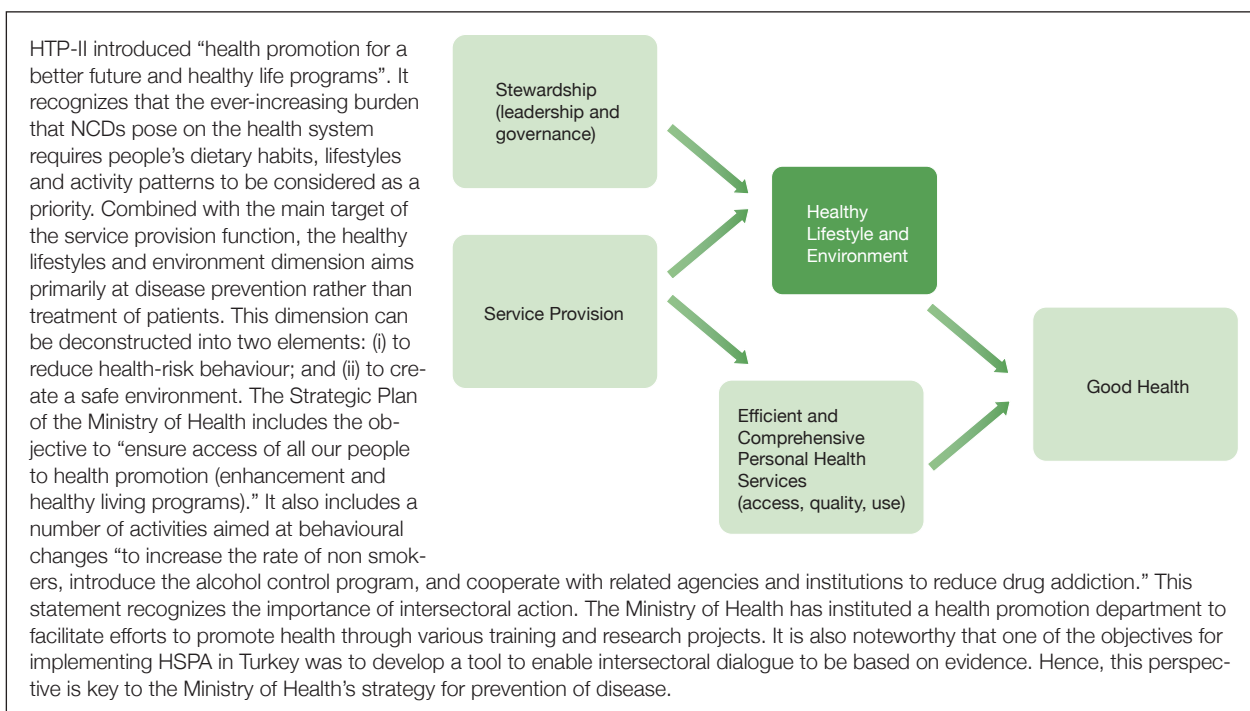
16 TUSAK. Unpublished study based on Turkish Statistical Institute Household Budget Survey dataset (2003–2008), 2011.

17 TUSAK. Unpublished study based on Turkish Statistical Institute Household Budget Survey dataset (2003–2008), 2011.



### 3. Healthy Lifestyles and Environment

#### Rationale and position in the strategy map



#### Performance level

Indicator title	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall assessment	Current gap	Evolution of gap	Overall assessment
12. Access to safe drinking water	●	●	On track	●	●	On track
13. Air pollution (PM10 <sup>a</sup> concentration in cities)	●	●	On track	●	●	Further scrutiny needed
14. Alcohol consumption	●	●	On track	●	●	Analysis required
15. Daily smokers	●	●	Further scrutiny needed	●	●	Action needed
16. Obese population	●	●	Action needed	●	●	Action needed
17. Fertility patterns (pregnancies with at least one biomedical risk factor)	●	●	On track	●	●	Further scrutiny needed

<sup>a</sup> PM10 is measure of particles in the atmosphere with a diameter of less than or equal to 10 micrometers

## Key facts

Average at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
12. Generalized access to improved not shared drinking water –92% population in 2008 (2). Significantly above the average for less developed European Region countries (EUR B+C:c 77%) (18).	Since 2005, almost 100% coverage in urban areas. Gradual improvement in rural areas – 72% in 1993, 88.4% in 2008 (26).
13. Recent decline in air pollution <sup>18</sup> (measured by PM10) – 49% to 26% with reading over 85 in 2007 and 2009 – but still considered high against the Strategic Plan target of harmonization with EU air quality standards by 2014. Also considered high in comparison to capital cities of EU countries (average 30/m <sup>3</sup> ). In 2009, only one in four reading stations reported average of 56/m <sup>3</sup> or less.	Decrease in number of cities with very high measurement resulted in less variability between the cities in Turkey. However, results for individual cities continue to show wide variation.
14. Very low and stable alcohol consumption of population aged 15+ (1.47 litre pure alcohol per capita in 2009). <sup>19</sup> Significantly below other OECD countries in 2007.	No available data for stratified analysis of alcohol consumption.
15. Combined smoking rate among male and female adult population remains among the highest in OECD countries –27.1% smokers and 25.4% daily smokers in 2010 (30) and above the Strategic Plan target of 20% by 2014. However, it has declined very significantly since the mid-1980s (from 44%) (29). More recently, the proportion of smokers declined from 31.2% in 2008 (4) to 25.4% in 2010 (30 changed). Potential positive impact of smoking ban in public places, cafes, restaurants and on public transportation is reflected in the most recent data covering the period since the introduction of the smoke-free air zone in 2008 – the proportion of non-smokers who work indoors and are exposed to second-hand smoke in the workplace was almost 38,5 % in 2008. The exposure to smoke in restaurants is even more prominent 55.9% in 2008. Overall, exposure to smoke in public places was 11.3% in 2008.	In 2008, almost one in two men (43.8%) and one in eight women (11.6%) were daily smokers (4). The gap between men and women is narrowing thanks to a marked decrease in daily smoking among men and a stable situation among women – to rates of 39% in men and 12.3% in women in 2010 (changed 30). No major differences between urban and rural areas except for females (14% compared to 5%). Inverse gradient by education level for men (highest in men with low education) and for women (highest in university graduates) (30).
16. Sharp increase in obesity among adults (BMI >30) from 22.3% (31) in 1998 to 36% (32) in 2010. Findings are in line with similar trends in Europe (35.2%) and worldwide (33.0%).	Substantial differences between men (21%) and women (38%) in 2010 (32), similar to previous study in 2000 – 13% in men and 30% in women (31). Women at double the risk, a major difference by international comparisons.
17. More than one third (35%) of pregnancies considered to have at least one biomedical risk factor – mother <18 years or >34; less than 24 months since previous birth; or more than 3 previous births – in 2008 (26) almost one in ten (9%) with more than one risk factor. Sharp drop in teenage pregnancies over ten-year period (10.2% in 1998, 5.9% in 2008) (23-26).	Very significant variations in the percentages of women aged 15–19 who give birth by region (between 4.% and 10.5%), by income quintile (two lowest: 8.0% and 11%; middle: 4.8% and 4.3%; highest: 1.7%), and by education level (above 7% for those with first level primary education or below, around 2% for others in 2008 (26).

b As defined in MDG1, improved drinking water is water used for domestic purposes: drinking, cooking and personal hygiene.

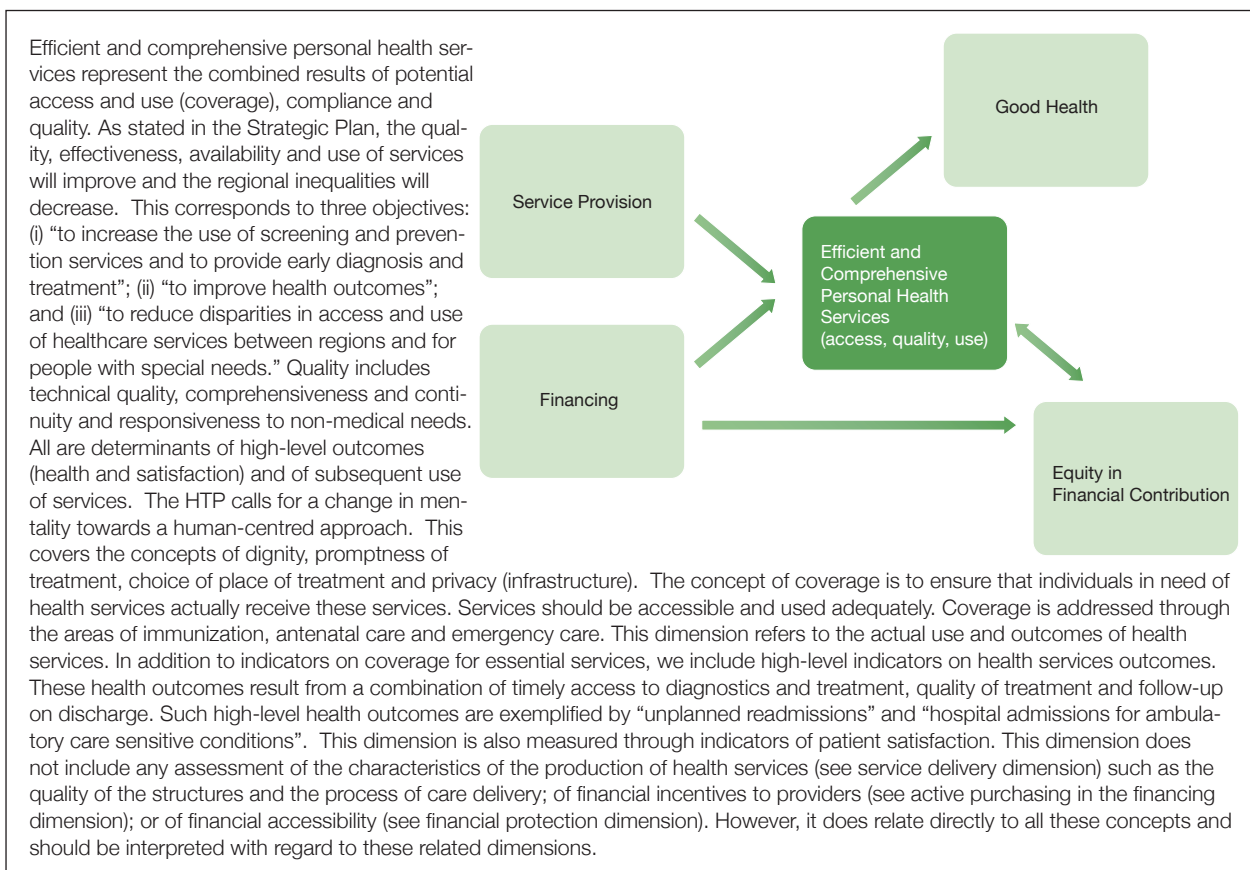
c Eur-B+C: 25 countries in the WHO European Region with higher levels of mortality – Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Montenegro, Poland, Republic of Moldova, Romania, Russian Federation, Serbia, Slovakia, Tajikistan, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine. For methods and criteria see The World Health Report 2004 (33).

18 Ministry of Environment and Forestry unpublished data 2009.

19 Figure for pure alcohol consumption from the Tobacco and Alcohol Regulatory authority (unpublished data 2009) divided by TURKSTAT figure for Turkish population of 15+ years of age.

## 4. Efficient and Comprehensive Personal Health Services (access, quality, use)

### Rationale and position in the strategy map



### Performance level

Indicator title	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall assessment	Current gap	Evolution of gap	Overall assessment
18. TB treatment success	●	●	On track	●	●	On track
19. Hospital admissions amenable to PHC (asthma, chronic obstructive pulmonary disease, diabetes)	●	●	Analysis required	●	●	Analysis required
20. Newborns with low birth weight and premature births (<37 weeks)	●	●	Further scrutiny needed	●	●	Action needed
21. At least four antenatal care visits	●	●	On track	●	●	Further scrutiny needed

	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
<b>22. Immunized children 12–23 months</b>	●	●	On track	●	●	On track
<b>23. Newborn screening</b>	●	●	On track	●	●	On track
<b>24. Cancer screening</b>	●	●	Further scrutiny needed	●	●	Further scrutiny needed
<b>25. Emergency calls</b>	●	●	On track	●	●	On track
<b>26. Patient satisfaction</b>	●	●	On track	●	●	On track
<b>27. Patient rights</b>	●	● <sup>a</sup>	On track	●	●	On track

<sup>a</sup> Steadily increasing number of complaints which can be interpreted as increased awareness.

## Key facts

Average level at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
18. Substantial increase in TB treatment success rate among newly detected laboratory confirmed cases between 2000 (73%) and 2008 (92%) (34), exceeding WHO recommended target (85%) (34).	Some regional differences but not significant. Gaps closing as treatment success is generalized.
19. No data currently available on hospital inpatient admission with primary diagnosis of ambulatory care sensitive conditions. This will be possible using MEDULA's electronic compilation of patient discharge abstracts. Further work required to align with OECD health-care quality indicators.	Not available.
20. Percentage of newborns with low birth weight (<2500 g) stable between 1998 and 2003 but increased between 2003 (7.9%) and 2008 (11%) (23-25-26). Increase may reflect better reporting rather than a worsening situation. Hypothesis supported by simultaneous increase in low birth weight rate in the same vulnerable populations (from 6.3% in 2003 to 18.3% in 2008 for mothers with no or incomplete primary education) which have also been marked by increases in births at health institutions (from 48% to 71% for same education category) (23-26). Compares unfavourably with most comparator countries. Percentage (9.0%) of preterm newborns (<37 weeks) (35) is around the global average (9.6%) (36).	Urban–rural differences have deepened. Major regional differences (between 7% and 18% at NUTS 1 level). <sup>20</sup> Almost double the risk of low birth weight for newborns in poorer families (16.5% in quintile 1) or when the mother has no education or not finished primary education (18.3%). Findings on low birth weight consistent with findings on IMR. Gap by education level has increased significantly over time. Results should be interpreted with caution as they may reflect better reporting related to increased access to antenatal care and attended delivery.
21. Very substantial improvement in the percentage of women receiving at least four antenatal visits during a pregnancy between 1993 and 2008 (more than doubled from 36% to 74%), with accelerated pace in 2003–2010 (54–82%) (25-19). Yet doubtful whether Ministry of Health Strategic Plan target of 98% in 2012 will be reached. Current coverage of 82% indicates room for improvement.	Rural–urban, regional, educational and income differences still exist. Major improvements (1.5 times more) observed for rural mothers during the period 2003–2008 (25,26). Three regions out of twelve have antenatal care coverage around 50% while other regions have around 80% in 2010 (19).

<sup>20</sup> Eurostat has established a hierarchy of three levels for the nomenclature of territorial units for statistics (NUTS). In Turkey, NUTS 1 corresponds to 12 regions, NUTS 2 to 26 subregions and NUTS 3 to 81 provinces.

<p>22. Considerable success in increasing the proportion of fully immunized children (aged 12–23 months with all due vaccinations) between 1999 and 2010. Reached similar level to the European regional average and has overtaken most of the comparator countries. Greater momentum between 2002 and 2006. For instance, third dose immunization of DaPT vaccine increased from 78% in 2002 to 90% in 2006 and to 97% in 2010 (19).</p>	<p>No gap identified as immunization is generalized.</p>
<p>23. Formal programme to screen newborns for a number of treatable, genetic, endocrine, metabolic and haematological conditions initiated in 1987 and reached near 100% in 2007–2010.<sup>21</sup> Rate of newborns screened for auditory problems has increased substantially since national implementation in 2007 but remains slightly under 40% in 2009. Requires substantial improvement to reach the Strategic Plan target of full coverage by 2012. Many countries have no such formal programme.</p>	<p>No gap as screening generalized.</p>
<p>24. Progressive increase in women undergoing breast and cervical cancer screening – from 940 000 to 1.5 million and from 960 000 to 3.2 million, respectively, between 2007 and 2009 (37). Increase in examinations mostly marked outside the Centres for Early Diagnosis of Cancer (KETEMs). Proportion of examinations undertaken in KETEMs is below 10% and decreasing (from 9% to 4% for Pap smear examinations, from 11% to 6% for breast examinations) between 2007 and 2009 (37). When compared to target population to be screened, rates have significantly increased since initiation of the programme in 2004: for breast cancer, mammography screening rate from 17% in 2004, to 20% in 2007, and 30% in 2011, for cervical cancer, pap smear screening rate from 16% in 2004, to 22% in 2007, and 53% in 2011. The improvement is significant<sup>22</sup>.</p>	<p>Significant regional differences ranging from 10% to more than 40%, according to regions (at NUTS 1 level) (37).</p>
<p>25. Very high and increasing response to emergency calls within 10 minutes (91% in 2006, 96% in 2009).<sup>23</sup> No international comparison.</p>	<p>No gap as complete coverage.</p>
<p>26. Significant increase in overall patient satisfaction. TURK-STAT life satisfaction survey shows that those satisfied or very satisfied increased from 47% in 2004 (38) to 73% in 2010 (39). Recent surveys on primary care using standardized questionnaires show 81% and 90% satisfaction rates in 2010 and 2011 respectively. Turkey was among the lower performing countries in Europe on several dimensions in 2010. Results for 2011 show a substantial improvement and place Turkey in the top five countries in 15/23 dimensions. (40,41).</p>	<p>A standardized primary care satisfaction survey shows no significant difference in satisfaction rate between provinces in which family medicine has been implemented and those in which it has not (90.7 in provinces with and 88.1 in provinces without family medicine in 2011). Satisfaction rates range between 87% (South-eastern Anatolia) and 92.5% (Western Marmara) in 2011 indicating an improved distribution compared to 2010 (range between 70–85%) (40,41).</p>
<p>27. Since 2004, improvement in resolving patient complaints reached 85% in 2010. Number of resolved complaints has increased significantly and steadily (from 30 000 in 2003 to 140 000 in 2010) (42). May be interpreted as increasing awareness of patient rights and easier access to complaint mechanisms. Taken together with lower percentage of dissatisfied patients (see indicator 26) and higher rate of complaints resolved on site, this is a positive finding.</p>	<p>No significant difference observed between sex and education level of patients for all years with available data. Specialist practitioners rank first as subjects of complaint in all occasional groups while polyclinic services rank highest among hospital departments receiving complaints. This difference has been stable over years.</p>

21 General Directorate of Mother and Child Health and Family Planning, unpublished data, data 2010.

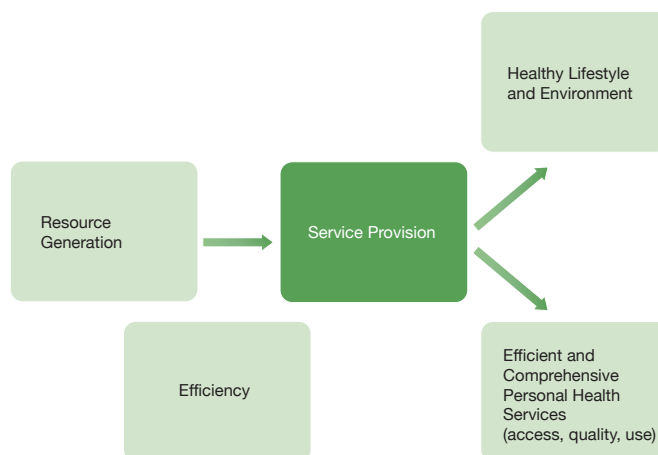
22 Department of Cancer Control, unpublished data 2010

23 General Directorate of Primary Health Care Services ,unpublished data, 2010.

## 5. Improved Service Provision

### Rationale and position in the strategy map

The objectives of the HTP are to organize, to provide financing for and to deliver health services in an effective, productive and equal way: “Efficiency means improving the health level of our public through effective policies. The main target in the delivery of services must be the prevention of disease instead of the treatment of the patient.” Striking a balance between funds allocated and funds spent for primary and secondary health-care services is one important health financing policy objective. The health service delivery dimension covers both public health services and health-care services (primary, secondary and tertiary care). HTP-II has heightened the focus on prevention and health promotion by introducing the concept of “health promotion for a better future and healthy life programs.” Reorganization and strengthening of PHC is a key element of the HTP, translated into the gradual implementation of family medicine throughout the country. This implementation incorporates a number of combined interventions such as retraining primary care physicians; increasing salaries; changing the physicians’ payment scheme (capitation); delegating responsibility for a reference population to family doctors; and improving facilities and equipment. Introduction of family medicine is intended to increase the motivation of professionals and the population’s trust in health-care services. Ultimately, it is aimed at increasing the use of PHC in order to produce better health outcomes by impacting on both effective coverage (quality and use of services) and risk behaviours (through health promotion and education). The Performance Based Supplementary Payment System for public hospital staff was built on volume and productivity but will gradually incorporate quality components (through regular quality evaluation visits).



### Performance level

Indicator	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall assessment	Current gap	Evolution of gap	Overall assessment
28. Budget for PHC and prevention programmes	●	●	On track	N/A	N/A	N/A
29. Distribution of visits at primary care level vs. other levels	●	●	On track	●	●	Analysis required
30. Referral rate from PHC to other levels of care	●	●	On track	●	●	On track
31. Ambulatory care for mental health	●	●	Analysis required	●	●	Analysis required
32. Surgical infection rate	●	●	Analysis required	●	●	Analysis required
33. Programme to track and register medical devices	●	●	Analysis required	●	●	Analysis required
34. Rational drug use	●	●	Further scrutiny needed	●	●	Analysis required
35. Pharmacovigilance: contact points and adverse effect notifications	●	●	Further scrutiny needed <sup>a</sup>	●	●	Analysis required

<sup>a</sup> For indicator effect notification.

<sup>b</sup> For indicator contact points.

## Key facts

Average at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
28. Budget allocation for disease prevention programmes and PHC has increased very significantly. Remained stable at US\$ 7–9 per capita between 2000 and 2003, then doubled to US\$ 16 in 2004 before increasing steadily and sharply to US\$ 42 per capita in 2010 (43). However, total government spending on health increased at an even faster rate	Stratification of this indicator is not applicable.
29. Visits at primary-care level and at hospitals (secondary and tertiary) have increased dramatically, showing parallel trends. Therefore, the proportion of primary-care visits has improved slightly – from 6 to 7 visits per 10 hospital visits between 2006 and 2009. However, the ratio remains low – it is expected that a truly primary-care centred health system will have more visits to primary-care level than to secondary or tertiary care.	PHC visits range between 35% and 40% of all visits in NUTS 1 regions in 2010 with no major changes in distribution since 2009. Mid-eastern Anatolia has the lowest PHC admission ratio.
30. Dramatic decrease in referral rate from PHC to other levels of care. Shows improvement from 16.7% in 2002 to 6.4% in 2006 and 0.4% in 2010 (19). This is extremely low.	Likely no disparity at such a low rate (0.4% in 2010).
31. Ambulatory care for mental health: data and indicator to be included in later HSPA reports. National Mental Health Policy prepared (44).	No data available.
32. In general, fewer surgical area infections (SAIs) found in ≤ 500 bed hospitals than in >500-bed hospitals by 2008 and 2009 surgical categories. Given surgical operation categories by risk indexes, infection rates increase in parallel with increased risk as expected. <sup>24</sup>	No distribution data available.
33. System tracking the registration and use of medical devices currently being implemented. No results were available at the time of the HSPA.	Stratification of this indicator not applicable.
34. Rational drug use (45): according to a recent study which serves as a baseline (2010), 56% of physicians stated that they did not use Ministry of Health Diagnosis and Treatment Guidelines for Primary Care and 69.2% of physicians stated that they did not use guidelines when prescribing antibiotics.	Stratification of this indicator not applicable.
35. As of June 2010, 329 pharmacovigilance contact point (PCP) officers registered in 317 PCP centres. Considering the population of Turkey, number of adverse effect notifications much lower than in other countries (299 in 2006, 355 in 2007). <sup>25</sup> Routine adverse effect notification by medical officers has not yet reached desired level.	Currently there are no provincial-level data on adverse effect notifications.

<sup>24</sup> Refik Saydam Hygiene Centre, unpublished data, 2010.

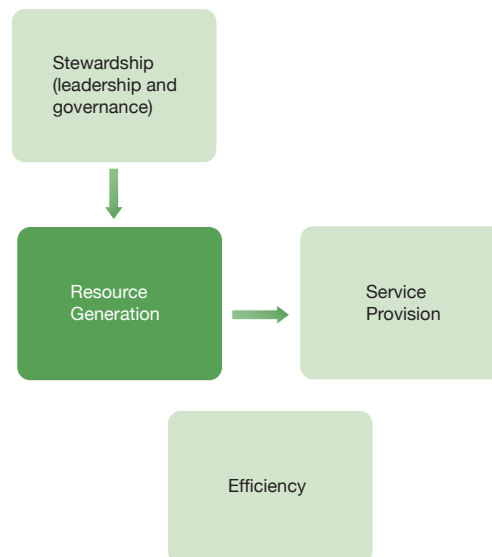
<sup>25</sup> Ministry of Health, General Directorate of Pharmaceuticals and Pharmacy, unpublished data 2010.



## 6. Improved Resource Generation

### Rationale and position in the strategy map

Three strategic goals of the Strategic Plan are focused on resource generation: (i) “ensure effective use of pharmaceutical and medical technologies”; (ii) “improve physical infrastructure for health services”; and (iii) “improve human resources for health”. Increased capacity is critical if the system is to respond to the challenge of substantial expansion of access to, and provision of, health services. Geographical disparities pose a great challenge for ensuring that infrastructures and personnel are positioned to ensure both sufficient resources and optimal distribution, particularly in remote and sparsely populated areas. Refurbishment of facilities is a priority, aiming to allow more comfort and privacy in order to achieve more “human-centred” health-care services. This supposes, for instance, an increased proportion of “qualified beds”. Within the HTP, a detailed health inventory has been generated by assessing all health investments to date. Local specificities have been incorporated by carrying out planning procedures on site with local administrators at district, provincial and regional levels. Given the need for a rapid scale-up of the provision of health services to all those in need within a context of scarce human resources for health (including physicians and nurses), it was considered critical to increase the productivity of professionals already in service as well as to take the long-term perspective of increasing the number of trained professionals. Hence, the productivity of health personnel is considered a key component of this dimension. The Performance Based Supplementary Payment System is an important tool in the HTP aimed at rewarding those serving the people. Focused initially on providing incentives for volume and productivity, this has expanded to incorporate factors such as quality components (see description of active purchasing in the financing dimension). Improved financial conditions have been introduced to attract larger proportions of physicians to work full-time in the public hospitals. Thus, the key priorities constitute increased motivation and productivity, more effective distribution, and increasing numbers of professionals graduating, retraining (for family doctors) or undertaking continuous training (for improved quality). Finally, the Ministry of Health has recognized the need for a proper information system that will facilitate its role in planning, managing and steering the health system. It is emphasized that an integrated information system will be necessary in order to harmonize all the components of the HTP.



### Performance level

Indicator	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall assessment	Current gap	Evolution of gap	Overall assessment
36. Number of health workers	●	●	Further scrutiny needed	●	●	Further scrutiny needed
37. Number of graduating health workers	●	●	Further scrutiny needed	N/A	N/A	N/A
38. Satisfaction of health workers	●	●	Continue monitoring	●	●	Further scrutiny needed
39. Number of inpatient beds	●	●	Further scrutiny needed	●	●	On track
40. Number of qualified beds <sup>a</sup>	●	●	Further scrutiny needed	●	●	On track
41. Number of intensive care unit (ICU) beds	●	●	On track	●	●	Analysis required
42. Number of rehabilitation beds <sup>b</sup>	●	●	Further scrutiny needed	●	●	Analysis required



	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
<b>43. Number of magnetic resonance imaging (MRI) units</b>	●	●	On track	●	●	Further scrutiny needed
<b>44. Number of hospitals reporting electronically</b>	●	●	On track	●	●	On track

<sup>a</sup> Beds located in patient rooms that have en-suite bathroom, maximum 2 beds, TV, telephone, fridge, dining table, shelves for patient use and lie-flat hospital armchair for patient's companion. These are included in the total number of beds.

<sup>b</sup> Beds in physical therapy and rehabilitation hospitals in which elderly people with disabilities are accommodated and receive respite care or young people with disabilities receive inpatient care.

## Key facts

Average level at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
36. Increase in number of health workers per population for all professional categories except pharmacists and dentists. Among 30 OECD countries showed one of the highest increases in nurse and physician density between 2000 and 2006. However, rates of 2.1 nurses (nurses and midwife) and 1.64 physicians per 1000 inhabitants were the lowest among those countries in 2009 (46, 47).	
37. Over the same period (2000–2007), also consistent increase in number of graduating health workers for all categories except doctors. However, number of nursing graduates remains lowest in 29 OECD countries in 2007. Nurse/physician ratio still one of the lowest in OECD countries, revealing potential issues to achieve appropriate skill mix.	Fewer health workers (except general practitioners) in North-eastern, South-eastern and Mid-eastern Anatolia regions in 2010. High concentration of specialists in Western Anatolia and Istanbul. Other types of health-care workers show more even distribution throughout the country (19) <sup>26</sup>
38. Baseline survey on health-worker satisfaction, motivation and commitment available for 2009. For all three categories and most breakdowns, average scores greater than 2.5 (Likert scale) (48) – 2.7 for satisfaction, 3.3 for motivation and 2.9 for commitment.	No significant differences between regions or between urban and rural areas. Results mostly comparable among all types of institutions (except provincial health directorates). Some differences between categories of health workers – average satisfaction lowest (2.3) for family physicians and managers, highest (3.0) for interns (48).
39. Total number of inpatient beds per 10.000 population was stable between 2007 and 2010 (26.4 and 27.1 per 10.000 population). Increase from 160.000 beds in 2002 to 183.000 in 2006 and 200 000 in 2010 (19). Very low in comparison to other countries but gap closing because many countries have reduced excess capacity (49).	Slight differences between regions – between 17.3 and 34 per 10 000 in 2010 (19).
40. In parallel, major increase in number of qualified beds in Ministry of Health hospitals – from 12.2% in 2006 to 30% in 2010, with 21165 additional qualified beds in just four years (19). Still requires substantial improvement to reach the Strategic Plan target (80% by 2014) and is low in comparison to many countries where trend is now towards increasing single occupancy.	At NUTS 1 level in 2008 the regions with lowest and highest percentage of qualified beds were at 18.7% and 43.5%. In 2010 the differences between regions with the lowest and highest percentage decrease significantly with respectively with least 31.2% and 47,5%. <sup>27</sup>

26 Calculated from General Directorate of Curative Services data.

27 Ministry of Health unpublished data, 2010

Average level at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
41. Substantial increase (35%) in number of ICU beds between 2008 and 2010 – from 14 000 to 19 000 beds (19). No international comparison.	Data on regional distribution available for number of ICU beds per 10 000 population. This varies between 1.3- 2.9 in 2008 while showing a substantial increase in 2009 (between 1.4-3.3) and 2010 (between 1.9-3.3). West Anatolia is the highest of all in 2008-2010 while Central and Northern regions underperforming comparatively. (19-37)
42. Number of rehabilitation beds (19) showed slight increase from 1534 in 2002 to 1642 in 2006 but remained fairly stable between 2006 and 2010 (1736 in 2010). No international comparison.	Stratification is only available for regions with physical therapy and Rehabilitation hospital beds. No figures available for four regions. In 2010, Western Anatolia, Eastern Marmara and Western Blacksea have the highest rehabilitation bed density while Eastern Blacksea and Mediterranean have the lowest.
43. Number of MRI units increased from 7.2 to 9.5 per 1 million population between 2008 and 2010 (19). <sup>28</sup> Represents substantial (35%) increase with 181 new MRIs between the two years (515 to 696). Compares favourably with average of most OECD countries (11 in 2007) and higher than countries such as the United Kingdom (5.6), Poland (2.9) or Mexico (1.1) (15).	Regional variations in the density of MRI units per 1 million population – densities in Istanbul (13.4) and Western Anatolia (10.3) double those in North-eastern Anatolia (6.4) or South-eastern Anatolia (6.2). Regional data available for three years only.
44. With few exceptions (24/797), almost all public hospitals reported information and results electronically via Health. Net in 2008, the programme's implementation year. <sup>29</sup> Family medicine information system as new standard at PHC level. SSI developed MEDULA – integrated structure to collect invoicing/data among various health institutions (electronic compilation of patient discharge abstracts).	Close to 100% hence no gap.

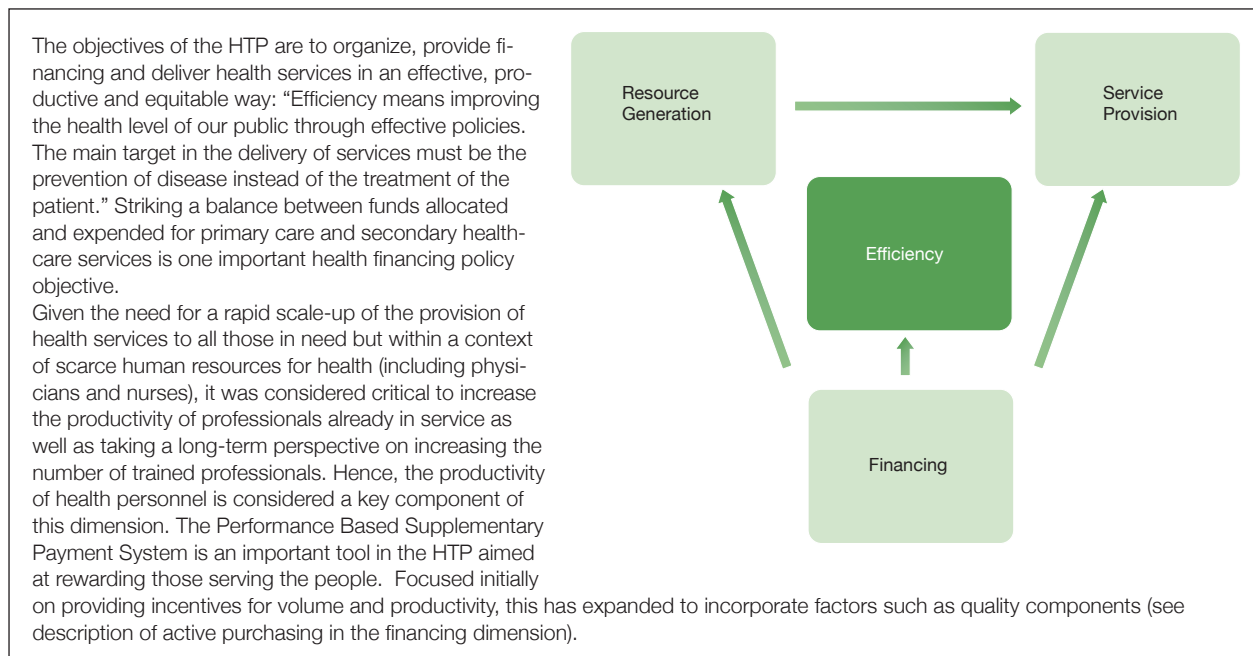
<sup>a</sup> Original term used is the number of hospital beds (acute, intensive care, burn, psychiatric and long-term beds) per 10 000 population.

<sup>28</sup> Calculated from General Directorate of Curative Services data.

<sup>29</sup> Department of Administrative and Financial Affairs, unpublished data, 2010.

## 7. Increased Efficiency

### Rationale and position in the strategy map



### Performance level

Indicator title	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall assessment	Current gap	Evolution of gap	Overall assessment
45. Number of outpatient visits per doctor per day – primary care	●	●	On track	●	●	Further scrutiny needed
46. Number of outpatient visits per doctor per day – secondary and tertiary care	●	●	On track	●	●	Further scrutiny needed
47. Ratio of outpatient to inpatient health-care expenditures	●	●	Continue monitoring	N/A	N/A	N/A

## Key facts

Average at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
<p>45. In primary care, number of outpatient visits per doctor per day almost doubled between 2002 and 2010 – from 16 to 27.4<sup>30</sup> Considering 8 hours of clinical work per doctor per day, this represents visits averaging 15 minutes which seems difficult to reduce further.</p>	<p>At NUTS 1 level<sup>31</sup> in 2002, the lowest number of outpatient visits per doctor per day in primary care was 9.1 and the highest number was 17.7. In 2010 the figures were respectively 20.3 and 51.0 for the regions with the lowest and highest number of visits. A similar increase was observed throughout the country without reducing the variations (in relative and absolute term) at NUTS1 level.</p>
<p>46a. Consistently increasing number of outpatient visits per doctor per day for secondary and tertiary care over the eight years with available data (from 7.5 in 2001 to 14.6 in 2010).<sup>32</sup></p> <p>46b. Although Turkey had fewer physicians per capita than most comparator countries, the rate of outpatient contacts per year (6.5) was within the range of most comparator countries in 2008 – Germany (7.8), Poland (6.8), United Kingdom (5.9) and Mexico (2.8) (50). National figures report an increase from 6.5 to 7.6 between 2008 and 2010.<sup>33</sup></p>	<p>At NUTS 1 level<sup>34</sup> in 2002, the lowest number of outpatient visits per doctor per day in secondary and tertiary care was 3.8 and the highest number was 16.7. In 2010 the figures were respectively 12.5 and 30.1 for the regions with the lowest and highest number of visits. A larger increase was observed in Istanbul. Though, it is not sufficient to significantly reduce the variations between regions at NUTS-1 level.</p>
<p>47. In 2009, outpatient and inpatient expenditures in MoH Hospital were US\$ 5.65 billion and US\$ 2.32 billion, respectively.<sup>35</sup> The ratio of outpatient to inpatient health-care expenditures is calculated at 2.43 for 2009. No trend data are available. No international comparisons could be drawn.</p>	<p>Distribution data not available.</p>

30 General Directorate of Curative Services unpublished data, 2010

31 Ministry of Health unpublished data, 2010

32 General Directorate of Curative Services, unpublished data, 2010

33 General Directorate of Curative Services, unpublished 2002 data, 2008–2010

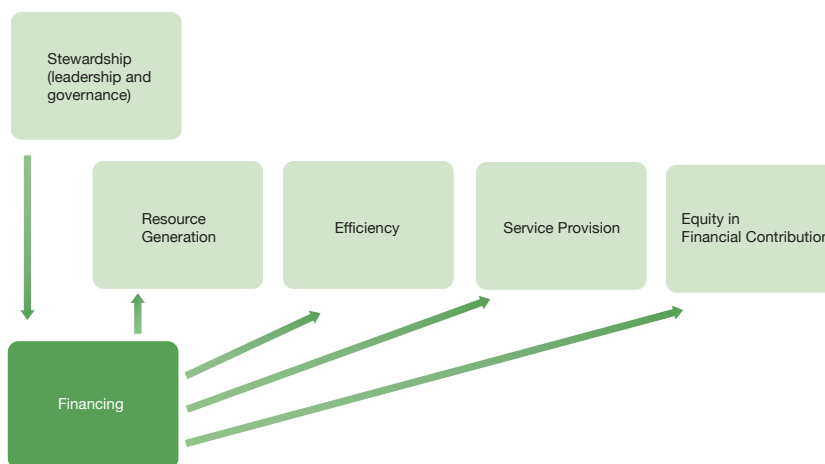
34 Ministry of Health unpublished data, 2010

35 Social Security Institute data 2010.

## 8. Adequate Financing

### Rationale and position in the strategy map

The HTP defines financing as a way to provide financial resources for the health system. The main principles are to distribute the burden of financing in a fair and equitable manner and to ensure that financing mechanisms are socially and politically acceptable and in harmony with the economic conditions in the country (51). Globally, evaluations of health financing focus broadly on the functions of revenue collection, pooling and purchasing. Within the strategy map, financing is positioned with other key functions such as resource generation and stewardship with the objective of impacting service delivery, fairness in financing and financial risk protection, as well as (ultimately) health outcomes.



It is noted that fairness in financing/financial risk protection is one of the outcomes of the health sector. Prior to the implementation of the HTP in 2003 the country faced four key health financing challenges: (i) public spending on health was low in comparison to countries with similar incomes and the OECD averages; (ii) health insurance coverage had grown but there were still gaps in coverage, especially among poor households; (iii) fragmented risk pools were generating inefficiencies; (iv) out-of-pocket payments were substantial and constituting a barrier to access, particularly for poor households. The health financing objectives within the HTP are to create more consolidated risk pools with standardized benefit packages, improve the depth of financing to address health needs, and strengthen purchasing to ensure effective access to quality health services.

### Performance level

Indicator	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall Assessment	Current gap	Evolution of gap	Overall assessment
48. Total public spending on health within total government expenditures	●	●	On track	N/A	N/A	N/A
49. Premium collection rate	●	●	On track	●	● <sup>a</sup>	On track
50. Percentage of population covered by social protection	●	●	On track	●	●	On track
51. Number of contracts between SSI and private and university hospitals	●	●	On track	●	●	On track
52. Number of Ministry of Health hospitals with performance based payment schemes	●	●	On track	●	●	On track

<sup>a</sup> Consolidation of various health insurance funds within the SSI. <sup>b</sup> System of single contractor (the SSI) with Ministry of Health, university and private hospitals not yet fully implemented.

## Key facts

Average at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
48. Proportion of public spending on health within general government revenues is increasing steadily – from 8% in 2000 (52, 53) to almost 13% in 2008 (53,54). In 2007 (latest international data available), performed fairly against comparator countries (four countries around 10%, five countries between 13% and 18%) (54, 55).	Stratification is not applicable.
49. Premium collection rate (collection/accrument) for blue collar (4/a) insurance scheme increased from almost 80% in 2000 to 100% in 2010. Premium collection rate for retirement fund (4/c) almost complete in 2009 (97%) and 2010 (98%). No data available on premium collection rate for employees (4/b). Total amount collected for all three insurance schemes increased from 6.5 billion Turkish lira in 2000 to 27 billion in 2004 and 67 billion in 2010. <sup>36</sup>	Stratification for insurance schemes is not available due to inadequate and unreliable reporting. Analysis required for 4/b and 4/c insurance schemes.
50. Population covered by social protection increased from 84% in 2000 and 87% in 2004 before a sharp rise to achieve close to full coverage (95%) in 2010. In particular, numbers in non-contributory scheme for vulnerable population (Green Card) increased sharply between 2004 (6.7 million) and 2007 (9.2 million) before stabilizing (56). <sup>37</sup>	Since 2005, patients have been entitled to choose where they receive care as all public hospitals are unified under the Ministry of Health. Previously, the population could use only hospitals belonging to their own insurance scheme; this created some inequities.
51. Number of contracts between SSI and private and university hospitals has increased. These contracts include 421 private hospitals in 2010. (57).	Single purchaser ensures more equity between providers.
52. Implementation of Performance Based Payment System in hospitals represents an improvement towards active purchasing. Now implemented in all Ministry of Health hospitals.	Currently, Performance Based Payment System is implemented in all Ministry of Health hospitals.

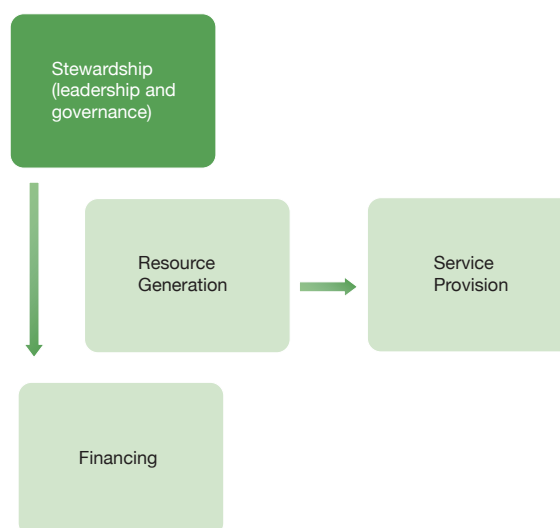
<sup>36</sup> Social Security Institute, unpublished data, 2010.

<sup>37</sup> TURKSTAT ([http://www.tuik.gov.tr/PrelstatistikTablo.do?istab\\_id=242](http://www.tuik.gov.tr/PrelstatistikTablo.do?istab_id=242) accessed 24 June 2011)

## 9. Strengthened Stewardship (Leadership and Governance)

### Rationale and position in the strategy map

Effective leadership and governance implies elaborating and implementing policies, enforcing norms and regulations, gathering appropriate intelligence for evidence-based policy and ensuring intersectoral dialogue and action. All these aspects are considered under this dimension in the strategy map. In Turkey, the Ministry of Health not only steers the health system but also directly manages the health-care providers – owning the vast majority of public hospitals (except university hospitals) and employing health professionals. However, both the HTP and the Strategic Plan identify further autonomy of hospitals as a priority. Hospitals will be transformed into public associations, a major shift in governance structure. In addition to its direct (but diminishing) role in the provision of health-care services, the Ministry of Health envisions the importance of leading intersectoral action to influence proactively the risk factors related to lifestyles and environment. It is also critical to tackle the root causes of major socioeconomic and cultural health inequities. A key question is to what extent the health system (through Ministry of Health action) can “go the extra mile” to reduce inequalities. The Ministry of Health also recognizes its role in fostering health beyond its borders by means of international cooperation.



### Performance level

Indicator	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
	Current comparative level	National trend	Overall assessment	Current gap	Evolution of gap	Overall assessment
53. Performance based budgeting	●	●	On track	N/A	N/A	N/A
54. Share of public hospital associations	●	●	Further scrutiny needed	Not yet relevant	Not yet relevant	Not yet relevant
55. Share of health institutions assessed on quality each year	●	●	On track	●	●	On track
56. Number of evidence-based guidelines produced or revised yearly	●	●	Further scrutiny needed	N/A	N/A	N/A
57. Policies aiming to reduce obesity	●	●	On track	N/A	N/A	N/A
58. Policies aiming to reduce exposure to tobacco smoke	●	●	On track	N/A	N/A	N/A
59. Number of foreign patients examined in public facilities (medical tourism)	●	●	On track	N/A	N/A	N/A

	Average level			Distribution (gender, age, socioeconomic status, regions with available and relevant data)		
<b>60. Number of international mutual agreements/protocols in health sector (humanitarian aid)</b>			On track	N/A	N/A	N/A
<b>61. Number of missions sent abroad</b>			On track	N/A	N/A	N/A

## Key facts

Average at national level	Distribution (gender, age, socioeconomic status, regions with available and relevant data)
53. Strategic Plan calls for widespread implementation of performance based budgeting which will be completed by the end of 2014.	Not relevant.
54. Currently no professional management structure in hospitals. Strategic Plan includes establishment of public hospital associations by end of 2014. Law on public hospital associations is currently being prepared and should be effective by the same date.	
55. All hospitals are assessed on quality annually as part of the Performance Based Supplementary Payment System. This includes assessment of service quality, patient satisfaction and institutional efficiency.	
56. By the end of 2014, the Strategic Plan aims that 95% of physicians will acquire skills in evidence based medicine (EBM), international clinical guidelines will be adapted and disseminated, EBM will be strengthened in the faculty of medicine curriculum and the use of guidelines will have increased. Clinical PHC guidelines in Turkey were first developed under the HTP and the first SIGN criteria-compatible guidelines were published in 2002 and revised in 2003. Medical specialty associations also develop and revise their own guidelines in their respective specialty branches. Data are not available to describe the status and process of guideline development.	
57. Environment and Health Information System (ENHIS) indicator on degree of implementation of policies aimed at reducing obesity/excess weight reached overall score of 23/24. <sup>38</sup>	
58. Implemented significant number of policies to reduce exposure to tobacco smoke. Both smoking in public and enclosed places including hospitality sector and advertisements, promotion and sponsorship of tobacco products are prohibited. Turkey is recognized internationally as a leader in this. <sup>39</sup>	

38 Nutrition and Physical Activities, Control of Noncommunicable Diseases Department, General Directorate of Primary Health Care Services, unpublished data, 2010.

39 Control of Tobacco and Addictive Substances, Control of Noncommunicable Diseases Department, General Directorate of Primary Health Care Services, unpublished data, 2010.



59. Increasing number of medical tourists visiting Turkey. Numbers in private hospitals have grown from 56 000 in 2008 to over 77 000 in 2010 and in public hospitals from under 18 000 in 2008 to above 32 000 in 2010 (58). Difficult to judge whether this number is appropriate or could be expanded.

60. As part of its humanitarian aid effort, Turkey aims to provide free care for patients from several poor countries. Numbers increased from 129 in 2004 to 156 in 2006 and 388 in 2009.<sup>40</sup> Given the scale of Turkish health-care efforts, these numbers are considered relatively low with potential for further increases.

61. Increasing number of missions related to collaboration on health-related issues. More than 1 100 missions sent abroad in 2009, 66% financed by international organizations.<sup>41</sup> Difficult to judge whether appropriate.

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40 Department of Foreign Affairs, Ministry of Health, unpublished data, 2010.

41 Department of Foreign Affairs, Ministry of Health unpublished data, 2010.

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