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General Overview of the Public Health Sector in Turkey in 2006

Briefing Note

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EXECUTIVE SUMMARY

Turkey has steadily ameliorated since 1960 its health conditions, but continues distant from most middle-income and European Union (EU) accession countries in terms of health status and access to healthcare. Life expectancy is nearly ten years below the Organisation for Economic Cooperation and Development (OECD) average and infant and adult high mortality rates demonstrate that the health status of Turkish citizens is poor compared with countries of similar economic and development situation. The health improvement in Turkey is not correlated with its level of socio-economic development. Significant and considerable efforts are needed to reach the level of health status and healthcare delivery standards of EU15 and EU25 in the medium term. Also many socio-economic factors affecting health - high absolute and relative poverty population pockets, lower school enrolment, and unemployment - should be addressed.

The public health situation in Turkey has some important weaknesses to focus on: high infant and adult mortality rates, malnutrition, high prevalence of communicable diseases with low and uneven vaccination rates, unequal distribution and access to healthcare services, poor information systems, etc. According to the Minister of Health (MoH), the most important causes of mortality are infectious diseases during infancy and infectious diseases and their complications, mostly associated with malnutrition among 1-4 years old children. Accidents among adolescents and the population in their early twenties; heart diseases and accidents among the 25-44 age group; and heart diseases and respiratory disorders among the 45-64 age group are the leading causes of mortality.

The Turkish health care system is a highly complex structure, centralised and fragmented at the same time. The health care service is provided by public, social security, university, private and philanthropic organisations. Health policy-making and planning are divided and unevenly distributed between various stakeholders, but as a norm, provision of healthcare is linked to the financing institutions. There is not a "national health service" concept, and, according to some data, as much as a third of the population has no health insurance coverage at all. Turkey spends 6,6 % of GDP on health, representing 13 % of the total government expenditure.

The ambitious "Health Transformation Programme" (PTH) launched by the Turkish Government in 2003, seeks to tackle all structural deficiencies, namely: universal health insurance, improve access and quality of healthcare services, the solid establishment of the Primary Care Network, role of the Minister of Health (MoH), change of the legislative environment, autonomy of healthcare facilities, capacity building and health professional training, enhancing patients' rights, accountable health information systems as well as drug and medical devices independent control institutions. It appears that the actual political will and momentum may help in achieving some of the goals described.
Most international and multinational organisations, such as the European Commission (EC), World Bank (WB) and World Health Organization (WHO), have relevant intervention programmes in the health sector in Turkey. It is stated that they will share information regarding the scope of their work, and tendering and procurement of goods and consultant services to prevent any duplication and to ensure that their respective investments will complement each other.

1. INTRODUCTION: DEMOGRAPHICS AND EPIDEMIOLOGY.

1.1 General information and demographic profile

Turkey represents 20 % of the EU25 total surface and is populated by 71.7 million inhabitants (2004), 16 % of current EU population. The form of government is a Parliamentary Republic and the country is divided into 81 provinces. The western part of the country is more populated and includes the biggest cities: Istanbul, Izmir and Ankara. Like most European countries, 66 % of the population concentrates in urban areas.
In 2003 the birth rate in Turkey was 2,4 % and the population under 14 represented 37 % of the total. The percentage of population over 60 was only 8,2, lower than the EU average.

1.2 Socio-economic data related to health

The key factors of socio-economic nature that play a major role on health determinants are income, education and employment.

The income gradient affecting health means that the poor generally suffer worse health and die younger than people with higher incomes. Turkey GDP per capita is 2638 €, only 9,5 % of the EU25; while in purchasing power parities (6650 €) represents 29 % of the EU25 average (24480 €). In 2002, 25 % of the population was living in relative poverty that is below the risk-of-poverty threshold[1].

Education gives more access to knowledge about healthy habits, enhances job opportunities, increases the tendency to seek treatment when needed, etc. School enrolment is a good indicator of access to education but there are no percentage data available for Turkey on net secondary school enrolment. In 2001, the ratio of total enrolment, regardless of age, to the population of the age group for secondary education was 76 %.

Being employed tends to be better for health than being unemployed. Also, vulnerability to health risk is increased by long term unemployment, including his/her dependents. National unemployment rate is 9,2 %, compared with 9 % on EU25. From 2000 to 2002, 28,5 % of those unemployed had been so for a year or longer (World Bank, 2005).

1.3 Mortality and morbidity profiles

High infant and adult mortality rates demonstrate that the health status of Turkey is poor compared with similar countries. Furthermore, infant mortality rates (IMR) place Turkey at the end of the list of all OECD countries and also of the WHO Europe Region, which include central Asian republics as Turkmenistan or Tajikistan. The most important causes of mortality among children from 1 to 4 years old are infectious diseases and their complications, mainly associated with malnutrition.

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[1] *Set at 60 % of the national median equivalent available income.*

The country-wide infant mortality rate masks considerable variation across urban and rural Turkey and across regions. IMR and U5MR[2] are lower than the national average in the urban areas and Western and Southern regions, and almost 40 percent higher than the national average in the rural areas and the Eastern region.

Health information systems are poor, giving no exact prevalence and incidence rates for various diseases and causes of death can not be determined. Data from the Turkish Ministry of Health shows that major causes of mortality are heart disease, cancer, perinatal disease, cerebrovascular disease, pneumonia and others. When compared with EU25, this profile shows enormous differences in the high order place perinatal disease and pneumonia occupies, illustrating the health debilities of the country.

Main causes of death by age in 2000 were:

Age	Main causes of death
0 – 12 months	Infectious and perinatal diseases
1 – 5 years	Infectious diseases and complications typically associated with malnutrition
Adolescence to 24 years	Accidents
25 – 44 years	Heart disease and accidents
45 – 64 years	Heart disease and smoking-related respiratory disorders

(Source: Sabas, B. 2002)

1.4 Life expectancy and healthy life expectancy

In 2003 a person born in Turkey can expect to live 70 years on average.
The expected length of life spent in good health, Healthy Life Expectancy (HALE), is calculated subtracting from Life Expectancy the number of years that is considered a person will spent with illness and disability. The World Health Organisation considers that the Turkish population will lose an average of 8 years, this figure being higher for women (10,2 years) than for men (6,8 years), but this difference is compensated and even surpassed by a longer Life Expectancy for women.

1.5 Inequalities in access

The distribution of resources and the access to preventive health care services, primary care and hospital care are unequal across the country, with a growing gradient from west to east, and also from big urban centres to rural communities. This is clearly demonstrated by the variability of the infant mortality rates, being the highest in the eastern part of the country and in rural areas, doubling almost those of the western parts and urban areas.

[2] U5MR: *Under-five Mortality Rate.*

1.6 Vaccination

Though based on WHO criteria, vaccination rates vary among different regions, while the correct implementation of the schedule is erratic. Rates are higher in urban settings and the western part of the country, being directly correlated with the educational level of the mother, the children's sex and birth order (Savas, 2002).

Universal immunization of children under one year old against the six vaccine-preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis, and measles) is one of the most cost-effective programs in reducing infant and child morbidity and mortality. Among children age 12-23 months, 54 percent of them had received all of the recommended eight vaccines. The percentage of children who were fully vaccinated by 12 months of age was 48 percent.

2. PUBLIC HEALTH PROGRAMS

2.1 General information and organization

Within the Ministry of Health, the General Directorate of Primary Health Care has responsibilities for public health programs. At the provincial level, each health directorate has a responsible for the different vertical programmes – on tuberculosis, cancer control or diabetes – that exist in parallel to the regular health care system.

Environmental health officers located in health centres in urban (and some rural) areas are responsible for basic sanitation issues such as water safety, solid-waste disposal, sewerage systems and food hygiene.

At the provincial level, the following units of the Ministry of Health provide primary care services:

- Health centres
- Health posts
- Mother and child health and family planning centres
- Tuberculosis dispensaries.

Health centres are each staffed by a team consisting of a doctor, a nurse, a midwife, a health technician and an administrator. Their main responsibilities consists on preventing and treating communicable diseases, providing basic treatment, immunization, mother and child services, family planning, public health education and environmental health services. They are responsible for collecting health-related statistical data. *Health posts* report to health centres and are each staffed by a midwife.

Health centres and health posts are the only settings providing preventive care, health promotion and community-based health services. The services provided by health centres and health posts, including essential drugs, used to be free of charge, but current practice does not include free essential drugs, and in the beginning of 2002, official fees were introduced for outpatient services.

About 280 *mother and child health centres* and *family planning centres* provide immunization, diarrhoeal control and respiratory diseases, promote breastfeeding, ensure sufficient and balanced nutrition, monitor the growth of children and provide family planning services.
Each province has tuberculosis control groups operating about 260 *tuberculosis dispensaries.*

Vertically organized programmes such as those for mother and child health care and for tuberculosis surveillance and treatment continue to be supported. Originally conceived as centres for training health centre and health post staff, the mother and child health centres are generally perceived as service providers, leading to considerable overlap with the services provided by health centres and health posts.

Health indicators relating to primary health care, as referred in the previous chapter, like infant mortality, under-five mortality and levels of immunization, demonstrate how unsuccessful primary health care has been in Turkey. Attempts during the 1990s to

provide coordinated and integrated primary health care in eight pilot provinces (particularly through the First Health Project) were unsuccessful, and coordination and collaboration among primary care providers is still almost nonexistent.

Increasingly less is spent on preventive care and on maternal and child health. The primary health care system is under-funded and ineffective, relying more and more on user fees. A large number of health centers are understaffed in rural areas in general, and in the Eastern and South Eastern Anatolia regions of the country in particular.

PTH[3] of the MoH, WHO – TR Biennial Collaborative Agreement 2005-07[4] and the WB "Health Transition Project", extensively work on the line of improving the Primary Healthcare Network and its role as responsible for preventive care and health promotion.

2.2 HIV/AIDS

With regard to HIV/AIDS, the current data shows that it is not a relevant health problem in Turkey and maintains low, stable rates of HIV/AIDS incidence and prevalence. Turkish PLWHA[5] are estimated to number 3700 according to WHO report. The present epidemiological stage of HIV in the country and the low level of injecting drug use, when regarded in the light of the experience of other countries, make it reasonable to assume that commercial sex work is the main driver of the epidemic.

HIV/AIDS cases were identified in all provinces, though they were mainly limited to the urban centres of six provinces, roughly half of them in Istanbul province alone. The great majority of the tests are mandatory and conducted without counselling. As in most countries in the initial stage of the epidemic, stigmatization and discrimination are widespread in Turkey, making vulnerable groups hard to reach and targeted prevention difficult to implement[6].

Awareness of acquired immune deficiency syndrome (AIDS) is high in Turkey. Ninety percent of women reported having heard of AIDS. Despite this widespread awareness, 31 percent of never-married women do not know any way to avoid AIDS. Educational level is positively related to knowing about ways of avoiding AIDS. The percentage that know about HIV/AIDS is higher among urban never-married women than among their counterparts living in rural areas (Hacettepe University, 2004).

2.3 Malaria

According to WHO reports, the malaria situation in Turkey remains serious in terms of its impact on the health of the population and the socio-economic development. Over 15 million people, or 23% of the total population, reside in areas where malaria remains endemic.

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[3] PTH of the MoH: *The "Health Transformation Programme" of the Ministry of Health.*
[4] World Health Organisation (WHO) Regional Office for Europe. *Biennial Collaborative Agreement between the Ministry of Health of Turkey and the Regional Office for Europe of the World Health Organization 2006/2007.* Copenhagen: (WHO) Regional Office for Europe.
[5] PLWHA: *People Living With HIV/AIDS.*
[6] World Health Organization. WHO Report 2005. Turkey Country Profile. http://www.euro.who.int/ countryinformation/ CtryInfoRes?language=English&Country=TUR

Moreover, a large proportion of the total population resides in areas where the risk of an explosive resumption of malaria transmission, leading to outbreak situations, remains high. Despite the fact that only 2.036 autochthonous cases were reported in 2005, it is generally accepted that the actual magnitude of the malaria problem in Turkey is greater than that reported, especially in south-eastern Anatolia, where the incidence of malaria is the highest in the country. Endemic malaria with a parasite index of above 10% was found there. Even though the significant decrease in malaria morbidity over the past years, the malaria situation, the specialists warn, may be subject to sudden and very negative changes. In light of the country's overall malaria potential, it is vitally important to consider the intensification of malaria surveillance activities at the periphery, especially in south-eastern Anatolia.

Turkey demonstrates strong political commitment to the Roll Back Malaria (RBM) movement. Malaria control activities carried out from 2002-2003 have included capacity building, disease management and prevention, operational research, drug-efficacy monitoring, malaria surveillance, health education and community participation. At present the Ministry of Health and other governmental entities, WHO, United Nations Children's Fund (UNICEF) and the administration of the Southeast Anatolia Project collaborate in malaria control activities in the region of Southeast Anatolia[7].

2.4 Communicable diseases

Infectious diseases cause 9% of the disease burden, the highest level in the WHO Euro Region.

Regarding Bird flu (Avian Influenza), the identification of avian influenza serotype H5 by the laboratories of the Ministry of Health in the turkey's deaths in October of 2005 in Kızıksa, Manyas, Balıkesir Province and then the information that the causative agent of the disease was H5N1 by the reference laboratory, indicated that the disease did spread to the winged animals in the country. On 31 December 2005, 4 people from the same family consulted the hospital with the same disease picture and H5N1 virus was detected in these people. On January 2006 the number of confirmed cases became 18. Several measures and surveillance mechanisms were established and it seems that the health situation is under control.

The incidence of tuberculosis (TB) in Turkey has fallen from 83 per 100,000 to 34 per 100,000 cases in the 19 year period between 1980 and 1999. Though the incidence is still higher than the European Union average, Turkey has had greater success in combating TB compared to many Central and Eastern European countries, where the incidence of TB has been on the rise, particularly since 1995. The National Tuberculosis Control Program in Turkey operates country-wide and is organized through five regional tuberculosis control commissions. Each province also has tuberculosis control groups, which in turn operate 272 tuberculosis control dispensaries. (MoH 2002)

[7] World Health Organization. WHO Report 2005. Turkey Country Profile. http://www.euro.who.int/ countryinformation/CtryInfoRes?language=English&Country=TUR

2.5 Maternal and child health

Eighty-one percent of mothers received antenatal care during the pregnancy preceding their most recent birth in the five years preceding the survey, with 75 percent receiving care from a doctor. Overall, 71 percent of women made an antenatal care visit before the sixth month of pregnancy, and more than half of the woman made more than four visits.
Younger, low parity women, women living in urban areas and in the regions other than the East, and women with at least first primary level education are more likely to have received antenatal care compared to other women.

Related to delivery care and postnatal care, in Turkey, 78 percent of all births in the five years preceding the survey were delivered at a health facility. Public sector health facilities were used to a much greater extent for delivery (65 percent) than private facilities. The proportion of all births delivered with the assistance of a doctor or trained health personnel is 83 percent (Hacettepe University, 2004).

Turkey has the highest incidence of phenylketonuria[8] in the world, with approximately 1 case of PKU in 2,600 births. A national countrywide screening program is in place.

Breastfeeding is almost universal in Turkey; 97 percent of all children are breastfed for some period of time. Complementary feeding is common among very young children. In the first two months of life, only 44 percent are exclusively breastfed. The average duration of breastfeeding for all children is 14 months. Among children who are breastfeeding and younger than six months, 18 percent received infant formula.

By age five, 12 percent of children are stunted (short for their age), compared to an international reference population. Stunting is more prevalent in rural areas, in the East, among children of mothers with little or no education, among children who are of higher birth order, and among those born less than 24 months after a prior birth. Wasting is a less serious problem. Four percent of children are underweight for their age.

Obesity is a problem among mothers. According to BMI[9] calculations, 57 percent of mothers are overweight, of which 23 percent are obese. BMI increases rapidly with age, exceeding 25.0 for the majority of women age 25 and older (Hacettepe University, 2004).

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[8] *Phenylketonuria (PKU) is an inborn error of protein metabolism caused by an impaired ability to metabolize the essential aminoacid phenylalanine. Phenylketonuria results in developmental delays and mental retardation, although the latter can be prevented if the condition is detected early.*
[9] BMI: *Body Mass Index.*

2.6 Cardiovascular Disease

As in many other countries, this group of diseases forms a major component of the non-communicable disease group in Turkey. Morbidity and mortality associated with this group of diseases has increased considerably over the years, with a 327 percent increase recorded in hospital discharges for ischemic heart disease and a 429 percent increase in hospital discharges for cerebrovascular diseases over the last 18 years. Discharges due to diseases of the circulatory system have also increased 1.5 times over the same period. These chronic diseases often require long term medical care both in outpatient settings and in hospitals, while leading to significant disability. Cardiovascular diseases are more prevalent in urban areas in Turkey, and aggressive preventive health programs targeting life-style changes, risk factors such as smoking and diabetes, high fat diets, obesity, and sedentary lifestyle as well as programs for early detection and treatment are necessary to reduce them.[10]

2.7 Accidents

Increasing urbanization over the past two decades in Turkey has brought with it an increase in accidents, injuries and poisoning. The significant increase in this group of health problems has added to hospital admissions and consequently the shift towards an increased disease burden from communicable to non-communicable disease conditions. Hospital discharges from injury and accidents have increased by 15 percent from 358 per 100,000 in 1980 to 421 per 100,000 in 1998. Persons injured in road traffic accidents have increased almost three-fold over the last 3 decades (61 per 100,000 in 1970 to 176 per 100,000 in 1999). This is a trend that is characteristic of many developing countries experiencing economic expansion, rapid urbanization and increased traffic.[11]

[10] Turkey Health Report, MoH, RSHC, School of Public Health, Publication No: SB-HM-2004 / 01
[11] Ibid 10

3. OVERVIEW OF HEALTH CARE SERVICES – THE TURKISH HEALTHCARE SYSTEM.

The Turkish health care system is a highly complex structure, centralised and fragmented at the same time. The current structure is the result of historical developments rather than of rational planning.

3.1 Provision

The health care service in Turkey is provided by public, quasi-public, private and philanthropic organisations.

3.1.1 Public sector

The Ministry of Health, strongly centralised, is the major provider of primary and hospital care, and the only provider of preventive health services (see Annex 6.2)[12]. At provincial level, health services are administered by Provincial Health Directorates accountable to provincial governors (see Annex 6.3)[13]. There is a lack of coordination between these very bureaucratic administration levels; in addition, local decision-making is not encouraged.

The Ministry of Defence owns 42 hospitals for the use of military personnel and their dependants, providing also medical postgraduate training for military medical staff.

The Council of Higher Education is responsible for university hospitals and the 50 medical schools.

The Ministry of Labour and Social Security has jurisdiction over the Social Insurance Organisation (SSK), the pension fund for workers in the private sector, which is the second larger provider of health care in Turkey.

Social security institutions include the above mentioned SSK, the Bag-Kur or Social Insurance Agency of Merchants, Artisans and the Self-employed, and the GERF or Government Employees` Retirement Fund. The last two do not operate health facilities of their own, but contract with other public providers.

Other public entities, like the Ministry of National Education, the Ministry of Internal Affairs, the postal service and the railways, have established their own hospitals and polyclinics, due mainly to the unequal quality healthcare the MoH provides.

3.1.2 Private sector

The private care sector has expanded rapidly since 1990, including presently 257 private hospitals, as well as a number of private polyclinics and diagnostic centres. Health care provided by private institutions appears to be more responsive to demand, and even some public agencies are contracting services from them.

Most private hospitals are located on the larger cities, but they have established themselves in the less developed parts of those cities, providing an inexpensive and poor quality service.

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[12] *Central organisation of the Ministry of Health.*

[13] *Provincial organisation of the Ministry of Health.*

A recent development has been the establishment of private medical schools, but the quality of training and the value of this development have been questioned.
Polyclinic and diagnostic centres are mainly the result of specialists with private practices banded together in order to generate more income through diagnostic services; they are also very convenient for patients, who can access a wide range of services under the same roof. In any case, the lack of a regulatory frame and planning measures has caused a boom in the amount of high-technology diagnostic equipment available in the country.
Most doctors working for public institutions also work privately after office hours, due to low salaries and the long-standing tradition that patients obtain better service from private practitioners.
Private pharmacists have a monopoly on the sale of all outpatient drugs, while hospital pharmacies provide for inpatient drugs.

3.2 Finances

Turkey spends 6,6 % of GDP on health, while the EU15 spend 8,8 %. Total government expenditure on health accounts for 13 % of the total government expenditure, while it represented 17 % of EU15.
The Ministry of Finance, out of the general state budget, is the main source of financing for health care services provided by the Ministries of Health and Defence, university hospitals and other public institutions.
Health care is also financed by social security institutions like the Social Insurance Organisation (SSK), the Social Insurance Agency of Merchants, Artisans and the Self-employed (Bag-Kur) and the Government Employees` Retirement Fund (GERF).
Of course, an important part is also financed through out-of-pocket payments made by citizens to private institutions, which some studies account for one third of the total health spending, others suggest that it could be even 50 %.

3.3 Coverage

There is not such a thing as a "national healthcare service", and as much as a third of the population has no health insurance coverage at all. Official statistics show that insurance schemes cover 95 % of the population, but it does not take into account the double insurance of many citizens.
Primary care should be free and universal for all Turkish citizens at the point of use, but reality shows that there are formal and informal payments in public facilities (mostly drugs).

3.4 Resources

The number of physicians and nurses per 100,000 inhabitants are 137 and 235 respectively, while on EU25 are 343 and 779, and on EU15 were 356 and 818 (Arnaudova, 2006). Statistics from the World Health Organisation show that Turkey has the lowest number of health personnel per capita of the European Region, but has steadily increased in the last decades.

The western part of the country has higher densities of health professionals, while the eastern and the rural areas have lower densities.
The number of hospitals and hospitals beds per capita is also very low, representing 1,7 and 256 per 100 000, while on EU25 are 3,2 and 611 respectively (Arnaudova, 2006).

3.5 Planning

From the complex situation of the provision of services and financing, it is easily understandable that health policy-making and planning are fragmented and unevenly distributed between various stakeholders (see Annex 6.4)[14].
The overall planning responsibility is divided between the Ministry of Health, the Ministry of Defence, parliamentary commissions and others (Savas, 2002).
To illustrate this fragmentation, each university hospital is an autonomous agency and does not come under the jurisdiction of any central planning authority.

3.6 Reform of the health care system

The Health Transformation Programme is the national strategy for health reform.
The main objectives of the strategy are (Arnaudova, 2006):
- Streamlining the financing system.
- Increase management autonomy of the public sector providers.
- Integrate primary care through systematised family medicine and well-functioning referral schemes.
- Reduce fragmentation of policy responsibility.
- Setting national norms to minimise the health effects of natural disasters.

[14] *Organisations involved in the health care system.*

4. FINAL CONSIDERATIONS

As a general remark, in the last decade, Turkey has experienced a positive population growth rate, with a fertility rate above population replacement and a longer Healthy Life Expectancy (HALE) for men and women.

Nowadays, Turkey suffers a double burden of diseases typical of transitional and middle-income countries: an unfinished agenda in infectious diseases and child and maternal health, in parallel with the growing impact of non communicable diseases.

Turkey has the highest infant mortality rate of all the OECD countries, which the World Health Organization estimated in 43 out of 1000 children born in the country in 2003. The goals expected by this organization for this region on 2015 will be 15 deaths per 1000 live births. In any case, the highest rates in Europe are for Estonia and Slovakia with 8 deaths per 1000 live births. It is clearly urgent to address antenatal care through an effective and coordinated network of Primary care facilities.

A brief summary of the main inequalities in the Turkish health system will include the following aspects:

- Imbalance in the availability and quality of health services between the eastern and the western parts of the country.
- The rapid expansion of the private health care sector is worsening the existing inequalities in access to care.
- Human resources for health are concentrated on the western part of the country and on urban areas, needing for better planning which takes into account geographical factors.
- With some uncertainties due to the difficulties in data collection, it is estimated that about one third of the population lacks coverage by any of the social health insurance schemes.

The Turkish Ministry of Health is organised as a very centralised administration where communication between levels is bureaucratic and slow. Decision-making at provincial levels is not encouraged, and in this way the response to emergency situations is extremely slow and outdated. Also, suffering from a chronic lack of reliable information systems, authorities tend to unknown the public health and healthcare situation in many dimensions.

Some of the issues that could be addressed by the EP Delegation are:

- Which are the current developments on the "Health Transformation Program"?
- Which is the situation regarding universal health coverage?
- How is the effective implementation of Primary care and family medicine?
- Which is the situation regarding accreditation and quality of healthcare delivery?
- Which is the role to be played in the future by the private sector in healthcare delivery?
- Which is the current situation of the information systems and the e-Health development?

ANNEX

Health Comparative Indicators Turkey – EU25 - EU 15

COMPARATIVE DATA: TURKEY – EU25 – EU15 (1)

	TURKEY	EU25	EU15
Population	71 700 000	455 532 896	380 962 720
GDP per capita	2 638 €	20 400 €	22 750 €
Unemployment Rate	9,2 %	9 %	8 %
Birth Rate (live births per 1000 population)	21	10	11
Fertility Rate	2,4	1,5	1,5
Population Annual Growth Rate	1,6 %	0,4 %	0,5 %
Life Expectancy at Birth (years) • Total • Males • Females	 70 68 73	 78 75 81	 79 76 82
Healthy Life Expectancy at Birth	62	-	72
Infant Mortality Rate	36	4,2	5
Immunization Coverage	85 %	95 %	95 %
Adult Smoking Prevalence	31 5	29 %	28 %
Alcohol Consumption (litres per person)	1	9,4	9,4
New cases of Salmonella Infection / 100.000 / year	39	44	37
Total Expenditure on Health (% of GDP)	6,5	-	8,8
Public Expenditure on Health (% of total health expenditure)	66	-	90

Source: Arnaudova, 2006.

COMPARATIVE DATA: TURKEY – EU25 – EU15 (2)

Human Resources for Health.
Health professionals per 100 000.

	TURKEY	EU25	EU15
Physicians	137	343	356
Dentists	23	62	66
Nurses	235	779	818
Pharmacists	32	78	81
General Practitioners	74	99	102

Hospitals Data

	TURKEY	EU25	EU15
Hospitals per 100 000	1,7	3,2	3,3
Hospital beds per 100 000	256	611	600
Annual inpatient admissions per 100	8	18,5	18,4
Average length of stay (days)	5,8	9,5	9,7

Source: Arnaudova, 2006.

COMPARATIVE DATA: TURKEY – EU25 – EU15 (3)

Disease Burden

CAUSES	Share of disease burden (%)		
	TURKEY	EU25	EU15
Cardiovascular disease	18	17	22
Neuropsychiatric disorders	18	27	21
Cancer / Malignant neoplasms	6	17	16
Unintentional injuries	9	6	9
Non-infectious respiratory diseases	6	7	3
Infectious and parasitic diseases	9	2	2
Respiratory infections	4	1	1
Perinatal conditions	7	1	1
Intentional injuries	2	2	3
Diabetes	1	2	2
Sense organ disorders	3	5	5
Total communicable diseases	24	5	4
Total noncommunicable diseases	65	87	83
Total injuries	114	8	12

Source: Arnaudova, 2006.

INFANT MORTALITY - Death / 1000 live births. Turkey and the EU –15

	2000 Infant mortality Death/ 1000 live births	2001 Infant mortality Death/ 1000 live births	2002 Infant mortality Death/ 1000 live births	2003 Infant mortality Death/ 1000 live births
Turkey	41.9	40.6	39.4	29
Austria	4.8	4.8	4.1	4.5
Belgium	4.8	4.5	4.4	4.3
Denmark	5.3	4.9	4.4	4.4
Finland	3.8	3.2	3	3.1
France	4.4	4.5	4.1	3.9
Germany	4.4	4.3	4.2	4.2
Greece	5.9	5.1	5.1	4.8
Ireland	6.2	5.7	5	5.1
Italy	4.5	4.7	4.5	4.3
Luxembourg	5.1	5.8	5.1	4.9
Netherlands	5.1	5.4	5	4.8
Portugal	5.5	5	5	4.1
Spain	3.9	4.4	4.1	4.1
Sweden	3.4	3.7	3.3	3.1
United Kingdom	5.6	5.5	5.2	5.3

MATERNAL MORTALITY - Death / 100 000 live births Turkey and the EU -15

	1990 Maternal mortality Dth./100000 live births	1997 Maternal mortality Dth./100000 live births
Turkey	100	49.2
Austria	6.6	2.4
Belgium	3.2	8.6
Denmark		17.7
Finland	6.1	5.1
France	10.4	9.6
Germany	9.1	6
Greece	1	
Ireland	3.8	5.7
Italy	8.6	4.3
Luxembourg	20.3	
Netherlands	7.6	7.8
Portugal	10.3	5.3
Spain	5.5	2.2
Sweden	3.2	3.3
United Kingdom	8	5

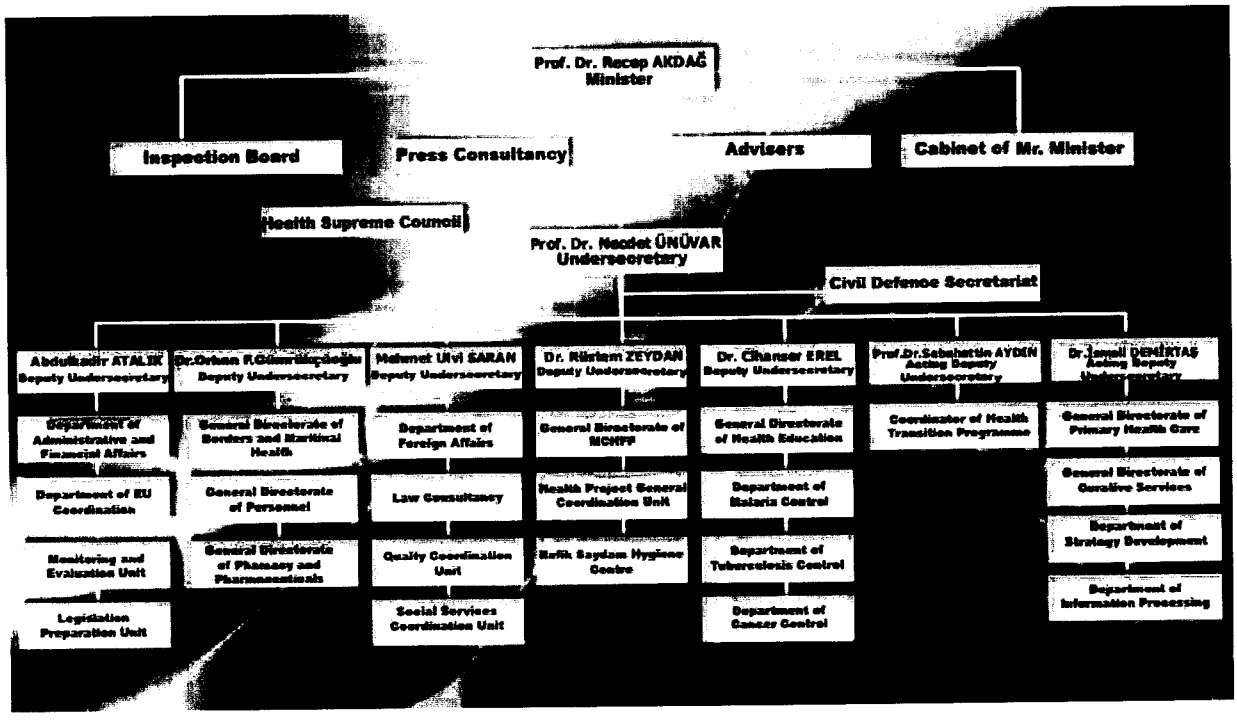
LIFE EXPECTANCY. Total population at birth (years). Turkey and the EU - 15

	2000 Life expectancy Total pop. at birth Years	2001 Life expectancy Total pop. at birth Years	2002 Life expectancy Total pop. at birth Years	2003 Life expectancy Total pop. at birth Years
Turkey	68.1	68.3	68.6	68.7
Austria	78.1	78.6	78.8	78.6
Belgium	77.7	78	78.1	
Denmark	76.9	77	77.2	77.2
Finland	77.6	78.1	78.2	78.5
France	79	79.2	79.4	79.4
Germany	78	78.5	78.3	78.4
Greece	78.1	78.1	78.1	78.1
Ireland	76.5	77.2	77.8	
Italy	79.6	79.8	79.9	79.9
Luxembourg	78	78	78.2	
Netherlands	78	78.3	78.4	78.6
Portugal	76.6	76.9	77.2	77.3
Spain	79.1	79.3	79.7	80.5
Sweden	79.7	79.9	79.9	80.2
United Kingdom	77.9	78.1	78.2	78.5

AIDS Incidence / mil. pop. Turkey and the EU - 15

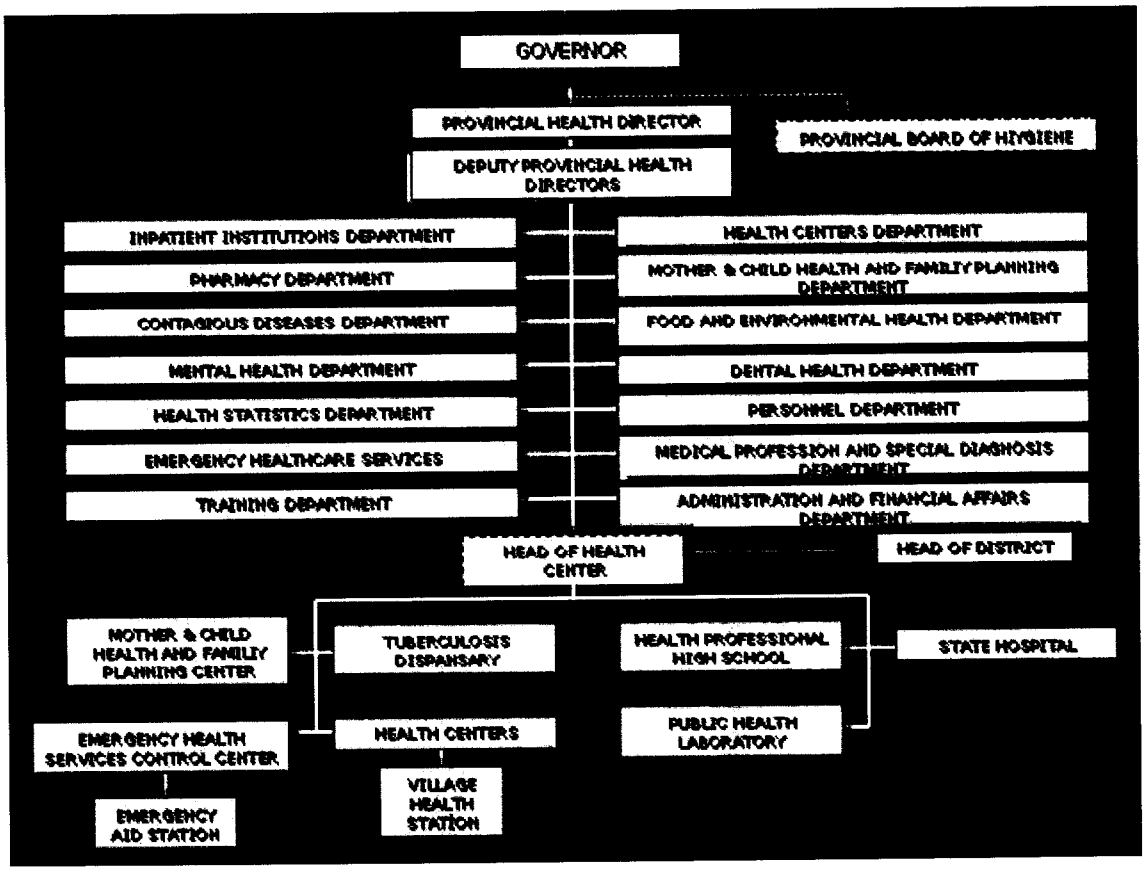
	2000 Communicab. diseases AIDS Incidence /mil. pop.	2001 Communicab. diseases AIDS Incidence /mil. pop.	2002 Communicab. diseases AIDS Incidence /mil. pop.	2003 Communicab. diseases AIDS Incidence /mil. pop.
Turkey	0.7	0.6	0.7	0.7
Austria	10.2	6.2	8.1	5.2
Belgium	12.7	12.7	9.9	8.4
Denmark	10.9	13.4	8.2	7.6
Finland	3.3	3.3	4	4.9
France	28	27	25.6	
Germany	8.9	8.4	7.9	4.3
Greece	11.6	8.1	8.2	6.5
Ireland	3.4	7	8.2	2.1
Italy	33.6	31.2	30.3	30.6
Luxembourg	23	9.1	2.2	17.7
Netherlands	15.3	14.1	15.4	
Portugal	91.8	93.8	95.5	81.3
Spain	67.3	56.6	49	33.2
Sweden	6.7	5.3	6.7	6.5
United Kingdom	13.9	12.2	14.6	14.1

Central organisation of the Ministry of Health.



Source: Ministry of Health of Turkey. http://www.saglik.gov.tr/eng (accessed August 2006).

Provincial organisation of the Ministry of Health.



Source: Ministry of Health of Turkey. http://www.saglik.gov.tr/eng (Accessed August 2006).

Organisations involved in the health care system.

Role	Organisation
Policy formulation	Grand National Assembly State Planning Organisation Ministry of Health Council of Higher Education Constitutional Court
Administrative jurisdiction	Ministry of Health Provincial health directorates
Health care provision: public	Ministry of Health SSK University hospitals Ministry of Defence Others
Health care provision: private	Private hospitals Private practitioners and specialists Outpatient polyclinics and diagnostic centres Laboratories and diagnostic centres Pharmacists Others
Health care provision: philanthropic	The Red Crescent Foundations
Health care financing	Ministry of Finance SSK Bag-Kur GERF Private health insurance companies Self-funded schemes International agencies

SSK: Social Insurance Organisation.
Bag-Kur: Social Insurance Agency of Merchants, Artisans and the Self-employed.
GERF: Government Employees` Retirement Fund.

Source: Savas, 2002.

Summary of health indicators selected by WHO Europe Regional Office.

Extract from health for all (HFA) database: Turkey

Indicator	Year	Value
Mid-year population	2003	70712000.0
% of population aged 0-14 years	1986	37.140000000000001
% of population aged 65+ years	1986	4.21
Live births per 1000 population	2003	20.920000000000002
Crude death rate per 1000 population	1998	6.25
Life expectancy at birth, in years	2002	70.0
Life expectancy at birth, in years, male	2002	67.900000000000006
Life expectancy at birth, in years, female	2002	72.200000000000003
Estimated life expectancy, (World Health Report)	2003	70.0
Estimated infant mortality per 1000 live births (WHO & UNICEF estimate)	2000	36.0
Infant deaths per 1000 live births	2002	36.0
Tuberculosis incidence per 100000	2003	26.329999999999998
Hospital beds per 100000	2003	255.68000000000001
Physicians per 100000	2002	136.72
In-patient care admissions per 100	2003	8.1099999999999994
Total health expenditure as % of gross domestic product (GDP)	2000	6.5999999999999996

Source: World Health Organization. Regional Office for Europe. http://www.euro.who.int/main/WHO/CountryInformation/HFAExtracts?Country=TUR&language=English (Accessed 30 August 2006).

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