OECD Reviews of Health Systems

Turkey

THE WORLD BANK

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where the governments of 30 democracies work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

Corrigenda to OECD publications may be found on line at: *www.oecd.org/publishing/corrigenda*.

Foreword

This joint OECD/World Bank review of the Turkish health system was undertaken at the request of the Turkish Ministry of Health and was supported by a financial grant from the ministry. It follows OECD reviews of the health systems of Korea, Mexico, Finland and Switzerland.

The review has been guided by an analytical framework which was developed during the OECD Health Project (2001-04). It also draws on the extensive experience of the World Bank with reviewing health systems and their reforms, including previous World Bank reviews of the Turkish health system.

The report was prepared by a team consisting of Jeremy Hurst and Peter Scherer from the OECD and Sarbani Chakraborty and George Schieber from the World Bank. Christine Le Thi (OECD) and Susan Sparkes (World Bank) provided statistical support and Judy Zinnemann (OECD) and Elif Yukseker (World Bank) provided secretarial assistance. An extensive review of literature on the Turkish health system was carried out by Basak Hacibedel during an internship at the OECD in 2006 and an analytical note on the Turkish health system was prepared by Adam Leive (IMF) during his tenure at the World Bank, in 2007.

The authors wish to acknowledge the excellent advice and information provided to the team by the Turkish authorities, especially by the School of Public Health and by the Social Security Institution in Ankara, partly in response to a written questionnaire. They want to thank, in particular, Dr. Salih Mollahaliloğlu, Dr. Ünal Hülür, Dr. Hakki Gürsöz, Dr. Mustafa Kosdak, Dr. Hasan Öncül and Dr. Hakan Ari at the School of Public Health for both oral and written advice which was provided against short deadlines. They also wish to thank the many other organisations and individuals who gave members of the team help and information during their visits to Turkey in December 2007 and April 2008. In particular, the team learned much from a field trip to Eskişehir in April 2008.

Table of Contents

Boxes

Tables

Figures

List of Abbreviations and Turkish Terms

APC	Ambulatory payment classification
Bağ-Kur	Social Insurance Agency for Merchants, Artisans and Self-employed
BBP	Basic benefit package
BMI	Body mass index
CD	Communicable diseases
CPT	Current procedure terminology
DRGs	Diagnosis-related groups
ECA	Europe and central Asia
Emekli-Sandigi	Government Employees Retirement Fund (or GERF)
FP	Family practitioner
GERF	Government Employees Retirement Fund (see *Emekli-Sandigi*)
GP	General practitioner
HTP	Health Transformation Programme
ICD	International Classification of Diseases
IHSS	Integrated Health Service Scheme
IMF	International Monetary Fund
MEDULA	Claims and utilisation management system
MoF	Ministry of Finance
MoH	Ministry of Health
MoLSS	Ministry of Labour and Social Security
NCD	Non-communicable diseases
OECD	Organisation for Economic Co-operation and Development
OOP	Out-of-pocket payment
PHC	Primary health care
PBSP	Performance-based Supplementary Payment System
PMT	Proxy Means Testing System
PPP	Purchasing power parity *or* public/-private partnership
PVHI	Private, voluntary health insurance
RBRVS	Resource-based Relative Value Scale
Sağlik -NET	Health information net or Health-NET
SGK	*Sosyal Güvenlik Kurumu* or Social Security Institute (see SSI)
SPO	State Planning Organisation
SSI	Social Security Institute or *Sosyal Güvenlik Kurumu* (see SGK)
SUT	*Saglik Uygulama Tebligi* or 2007 Health Budget Law
SSK	*Sosyal Sigortalar Kurumu* or Social Insurance Organisation for blue-collar workers in the public and private sectors
TRL	New Turkish lira
TUIK	Turkish Statistical Institute
UHI	Universal Health Insurance
Yesilkart	Green Card

ISBN 978-92-64-05108-9
OECD Reviews of Health Systems
Turkey

Executive Summary

The health status of the Turkish population has improved significantly over the past few decades, accompanying improvements in the scale and functioning of the health-care system. Impressive progress has been made in expanding financial protection to the population through expansions in the breadth and depth of health insurance coverage combined with service delivery reforms to improve equity in access to health services. Health expenditures have also increased in the past decades commensurate with income increases. Nonetheless, health policy in Turkey faces important challenges in further improving the health status of the population and enhancing the efficiency of the system.

This *Review of the Turkish Health System* starts out by providing an overview of the salient features of the system prior to the implementation of the government's Health Transformation Programme (HTP) in 2003. Next, it outlines the major reforms implemented under the HTP. It then evaluates system performance against the main aims of health policy, namely access and equity, health improvement, responsiveness to consumers, value for money and fiscal sustainability. It assesses the recent reforms, including the transition to Universal Health Insurance coverage, and their potential impacts. Finally, the review outlines areas where additional policies may be needed to strengthen the system.

The Turkish health-care system is in transition towards the health systems of most other OECD countries

The Turkish health system is in transition. As a part of the government's Health Transformation Programme, institutional and organisational reforms are underway that aim at eliminating fragmentation and duplication in the health financing and delivery systems and assuring universal access to health insurance and health services.

Prior to 2003, the Turkish health system was characterised by the presence of several different public agencies funding and providing health care, some vertically integrated and others relying on contractual relationships. They served different parts of the population leaving significant gaps in coverage. Social security institutions covered salaried workers in the formal sector, as well as the self-employed and active and retired civil servants. A government-financed programme covered the low-income uninsured (the Green Card programme). Informal-sector workers account for about 25% of the population and only some of these were covered as dependents. Although the majority of the population was covered through one of the health insurance schemes, including the Green Card, and although all citizens were eligible for free primary and emergency hospital care, there were serious problems on the delivery side, which meant that even insured persons did not have

adequate access to timely health services. The Ministry of Health (MoH) operated a very large network of preventive and primary health-care centres and hospitals, while one of the social security agencies managed its own network of facilities. There also existed private facilities, many of which were not effectively regulated.

There were regional and urban-rural disparities in utilisation of health services, and accessing health services in rural areas was significantly harder and more expensive. Allocative efficiency of health services was poor, with the majority of health expenditures allocated for more costly inpatient and outpatient hospital-based services instead of preventive and primary health-care services. Demand for preventive and primary health-care services among the population was very low, partially driven by the low perceived quality of care in primary health-care facilities and the public sector more generally. The majority of outpatient visits occurred therefore in hospital settings. Despite the establishment of a four-tiered integrated health services delivery system, the referral system did not work and patients routinely by-passed primary health care to seek services at higher levels of care.

The government's Health Transformation Programme (HTP), which has as its objective to make the health system more effective by improving governance, efficiency, user and provider satisfaction and long-term fiscal sustainability has been under implementation since 2003. Key elements of the HTP include: *i)* establishing the MoH as a planning and supervising authority; *ii)* implementing Universal Health Insurance (UHI) uniting all citizens of Turkey under a single Social Security Institute (SSI); *iii)* expanding the delivery of health care and making it more easily accessible and friendly; *iv)* improving the motivation of health personnel and equipping them with enhanced knowledge and skills *v)* setting up educational and scientific institutions to support the system; *vi)* securing quality and accreditation systems to encourage effective and quality health-care services; *vii)* implementing rational drug use and management of medical materials and devices, and *viii)* providing access to effective information for decision making, through the establishment of an effective Health Information System.

The implementation of the HTP since 2003 has resulted in significant changes in the health system. The majority of public hospitals in Turkey, including those previously managed by a social security institute, are now integrated under one umbrella (the MoH), thereby resulting, in principle, in the separation of the purchaser of health services from the provider. As a result of the reforms, the various social security institutions are now integrated under one institution, the SSI, and share common beneficiary databases, claims and utilisation management systems. The benefits package across the various health insurance schemes is unified and provider payment mechanisms are shifting away from atomised, retrospective, fee-for-service systems towards prospective payment systems incorporating pay-for-performance. With the implementation of the "Social Security and Universal Health Insurance Law", in October 2008, a single-payer system has been established for public patients in Turkey. An integrated primary health-care system (based on the model of family medicine) is under implementation in 23 out of 81 provinces of Turkey, and public hospitals have been given more autonomy over resource allocation while simultaneously being expected to operate under a more rigorous MoH accountability framework.

Despite major improvements in health status, consumer satisfaction and financial protection, the system still needs to improve performance

Health status in Turkey has been improving rapidly in recent decades and in some respects has been converging with OECD averages. Nevertheless, average life expectancy in Turkey remains lower than in any other OECD country and infant mortality remains higher. Despite recent improvements under the HTP, Turkish health status appears to be slightly below the level that might be expected when comparisons are made between Turkey and other upper middle-income countries inside and outside OECD.

While many factors are responsible for the improvements in health status in Turkey, it seems likely that a significant part is due to higher and more effective spending on health care. While both total spending on health care and public spending on health care do not appear to be excessive, judging by spending levels in other *OECD* countries, when Turkey is compared to other *upper middle-income* countries, its overall health spending is not excessive but public spending on health, however measured, is at or above the average level in comparable countries. In the first three years following the introduction of the HTP in 2003, although health expenditures rose rapidly, increases in both total and public spending on health care seem to have remained affordable because economic growth in Turkey was also rapid.

A long succession of improvements in effective health insurance coverage in Turkey, culminating with the passage of legislation introducing UHI in 2008, has improved both financial protection for the poor against high health expenditures, and equity in access to health care across the population. In previous years, the lack of health insurance coverage, and inadequacies in benefits for some of the more disadvantaged groups in the population, are likely to have played an important contributory role in determining the comparatively low levels for certain health indicators in Turkey. The presence of the "inverse care law" (access to care inversely related to need for care) in Turkey can be illustrated with regional data which suggest that in 2007 the density of physicians was inversely associated with infant mortality across Turkish regions, in spite of the fact that under the HTP, there has been a significant increase in medical staffing in the south and east of Turkey where the need is greatest.

On health sector inputs, the nurse/physician ratio in Turkey is one of the lowest in the OECD, raising questions regarding appropriate skill mix. Only about 30% of physicians were practicing as general practitioners, which is likely to have contributed to reported weaknesses in primary care. Remuneration of physicians and other staff improved significantly with the introduction of performance-related pay in 2004, and has also increased for GPs choosing to become family practitioners. Nevertheless, in 2005, remuneration of salaried GPs in government health centres was still relatively low in comparison with other OECD countries but remuneration of salaried specialists looked relatively high. The relative remuneration of nurses seemed to be in line with that in a number of other OECD countries. Pharmaceutical consumption has been increasing in volume, especially in 2005 when coverage was improved for Green Card and *Sosyal Sigortalar Kurumu* (SSK) scheme members. Various price reductions for drugs have been achieved in recent years which suggest that value for money has risen. However, there are

remaining concerns with the rationality and cost-effectiveness of drug consumption in Turkey.

Since the introduction of performance-related pay, there seem to have been large increases in the volume of activity and in physician productivity, judging by reported consultations per physician. However, despite progress towards the introduction of a family practitioner system in Turkey, the consultation mix remained weighted towards hospital attendances compared with some other OECD countries. Average length of stay in hospital was shorter than the OECD average in 2005, although this may reflect Turkey's demographics. There are few data available on the technical quality of medical care in Turkey. However, there have been major improvements in vaccination rates for children. Measles was almost eliminated in Turkey in 2007. Data on the responsiveness of the system and on satisfaction with care suggest that there were long waits for, and low patient satisfaction with, both health centres and hospital care prior to the introduction of the HTP. Following its introduction, there were reports of shorter waiting times and of steeply rising overall satisfaction with the quality of both primary health care and health care in public hospitals. Turkish patients seem to be particularly pleased with their new family practitioner services.

While the ambitious health reform programme offers new opportunities, challenges remain

The Health Transformation Programme in many ways reflects "good practice" in the development and implementation of a major health sector reform including the introduction of UHI. Strong government commitment and leadership along with major financing reforms have been complemented by carefully planned service delivery reforms. While it is too early to evaluate the impacts of the HTP on all aspects of health status, financial protection, and consumer satisfaction, the preliminary indications from the available data suggest important progress in all three areas. Turkey is closing the performance gap with other OECD countries and, on a number of measures including overall costs, performs well relative to other comparable upper middle-income countries. Indeed, there may be much that other countries can learn from the recent health reforms in Turkey, especially in the use of performance-related pay to raise staff productivity.

Nevertheless, some old challenges remain and some new ones have been created. The most important remaining challenge facing the health system in 2008 is how to improve health status further – to bring it up to the average level in other upper middle-income countries and to continue these improvements in an affordable manner in light of the demographic, epidemiological and nutrition transitions. A related challenge is how to do this while maintaining the sustainability of public spending on health. Because of the design of the new health system, there appears to be a high risk of cost-containment crises in the years to come, potentially exacerbated by downturns in the rate of future economic growth. What is needed to meet this challenge, is policies which will: *i)* allow control to be maintained over the rate of growth of health expenditure; *ii)* encourage further improvements in efficiency; and *iii)* continue progress towards equity in access and assuring continued high levels of financial protection. Another challenge will be to raise sufficient revenues to assure the financial solvency of UHI.

Control should be maintained over the rate of growth of health expenditure

Turkey has a good history of cost-containment in health care, but the new health system – which can no longer rely on limiting access to services – has a potential to grow more rapidly. Hence, it will be desirable, in the future, to maintain a hard cap on total public spending on health by the SSI, to allow the government to maintain control over total public spending on health including payments to private providers. This cap should embrace all public spending on primary health care and on hospitals, including private hospitals. It will imply control either of volumes of health care or of prices – or of some mix of both – and will require active purchasing by the SSI and appropriate evolution of the performance management system.

In addition, when family practitioner services are extended to the whole country, it will be desirable to implement co-payments for visits to hospital outpatient departments without a referral from a family practitioner and to re-instate the family practitioner reimbursement penalty for excessive referrals. Such copayments should also be implemented for inappropriate self-referrals to higher level hospitals. Another important way to contain costs will be to pursue further reductions in pharmaceutical prices and further rationalisation in the consumption of drugs – which account for some one-third of health spending.

In the medium to longer term, after necessary expansion of physician numbers has been completed, it will be important to reduce once more, and to subsequently control, the number of graduates entering the medical profession. There is evidence that health spending is positively associated with doctor numbers in health systems like that of Turkey.

Further improvements in efficiency will be needed

To encourage improvements in efficiency, which can aid cost containment as well as improve value for money, the authorities should press on with completion of Stage 2 of the Health Transformation Programme during the next five years. In primary care, they should continue to roll out the new family practitioner services and continue to develop community preventive services alongside them. Although additional family practitioners may add to cost pressures in the short term, they should help to improve efficiency in the medium to longer term by reducing the load on hospital outpatient departments.

In secondary care, it will be important to complete the transfer of purchasing of services to the SSI, when its management capacity is appropriate to the task, and when the DRG and bundled-outpatient payment reforms are sufficiently advanced. At the same time, it will be desirable to reform the performance management system in hospitals to ensure that it is consistent with other payment reforms and that it rewards efficiency and unit cost savings as well as volume and quality. It will also be desirable to persist with the policies which give hospitals more autonomy – provided that they display the management capacity to handle it.

More generally, it will be important to invest in: better information and information technology (IT); health technology assessment; and the size and skills of the nursing workforce. Judging by experience in other OECD countries, there seems to be ample scope for nurses to play a bigger role in support of doctors in Turkey. There are some important gaps in the measurement of the quality of care and in the ability to monitor and project health expenditure changes and to evaluate changes in technology.

Further progress towards equity in access is required

There is potential to raise average health status in Turkey by making further improvements in equity of access to health care, particularly in the geographical dimension. The new health system will help to improve equity of access because money will follow the patient. However, action will be needed on the supply side to strengthen the capacity of the system in the East of the country and in Istanbul. Such action could be guided by appropriate "needs" adjustments in the Diagnosis-related Groups (DRGs) and outpatient bundled payment rates, the development of weighted capitation approaches for regional, public spending on health care and by stronger financial incentives to attract professional health workers to underserved areas.

There is a need to increase revenue raising

It will be important for the SSI to pursue ways to increase registration of the population for health insurance purposes and to collect contributions. However, given the policies of the authorities to reduce the informal sector in Turkey, it will be desirable to keep the share of public spending on health which is raised from contributions under review – because contributions raise the "tax wedge" on labour and thereby encourage informality. It may be easier to raise general revenues if informality declines. There are clearly possibilities for revenue enhancements both through improved tax administration and through reforms in the existing taxes.

It will be important to address wider public health issues

It is unlikely that better health care, alone, will enable Turkey to match similar countries in health status. There is strong evidence that other, non-medical determinants – such as educational attainment, smoking, diet and physical activity – play a big part in determining health status. Hence, stronger cross-sectoral policies, involving several ministries apart from the MoH are needed in Turkey.

Further difficult decisions lie ahead

The challenges discussed above suggest that there will be a big role for continuing stewardship by the MoH. There is a need to oversee completion of the HTP. There will be a continuing need for steering of the public primary and secondary providers, even if they become more autonomous. And there is a need for the MoH to take the lead in co-ordinating action on the wider public health agenda, involving other key Ministries in the Turkish Government. It would be desirable for the MoH, the SSI, Treasury, the Ministry of Finance and the State Planning Office to continually monitor spending and revenues and to confer, to assure sustainability and value for money.

Summary of key suggestions

- Maintain a hard cap on *total* public spending on health care by the SSI.
- Implement co-payments for visits to hospital outpatient departments without a referral.
- Pursue further reductions in pharmaceutical prices and implement rational drug prescribing.
- Control entry to the medical profession in the medium to long term after the expansion in physician numbers needed currently.
- Continue with implementation of the HTP in the next five years.
  - ❖ Continue to roll out family practitioner services.
  - ❖ Continue to develop and co-ordinate community public health services alongside the family medicine services.
  - ❖ Complete transfer of purchasing of hospital and primary health-care services to the SSI when management capacity is appropriate..
  - ❖ Complete the DRG and bundled outpatient payment systems and develop new systems to transfer risk to providers based on managed care principles.
  - ❖ Reform the performance management system to support DRG payment and to put more emphasis on efficiency and cost-effectiveness.
  - ❖ Continue with granting more autonomy to hospitals with appropriate management capacity.
  - ❖ Invest in stronger IT systems and data for decision making.
  - ❖ Develop capacity to undertake health technology assessment and to evaluate and monitor health reforms.
  - ❖ Enhance the number and role of nurses in Turkey.
- Take action on the supply side to support the new health system in improving geographical equity in access – possibly informed by weighted capitation targets for regions.
- Increase registration and payment of contributions to UHI and carefully monitor solvency.
- Address wider public health issues across ministries.
- Continue to develop the stewardship capacity of the Ministry of Health.

ISBN 978-92-64-05108-9
OECD Reviews of Health Systems
Turkey

Synthèse

L'état de santé de la population turque s'est sensiblement amélioré au cours de ces dernières décennies, en même temps que l'envergure du système de soins s'élargissait et que le fonctionnement de ce système s'améliorait. Des progrès impressionnants ont été accomplis en matière d'extension de la protection financière de la population par l'accroissement de l'ampleur et de la variété de la couverture d'assurance-maladie, conjugué à des réformes de la prestation de services pour obtenir une plus grande équité dans l'accès aux services de santé. Au cours de cette période, les dépenses de santé ont, elles aussi, augmenté en proportion de l'augmentation du revenu. Les responsables de l'élaboration de la politique de santé de la Turquie ne s'en trouvent pas moins confrontés à des défis importants, qu'il s'agisse de la poursuite de l'amélioration de l'état de santé de la population ou du renforcement de l'efficience du système.

Cet *Examen du système de santé de la Turquie* commence par une présentation générale des particularités du système avant la mise en œuvre du Programme gouvernemental de réforme du système de santé en 2003. Il se poursuit par un exposé des grandes réformes engagées à ce titre. Suit une évaluation des performances du système au regard des principaux objectifs de la politique de santé, à savoir l'accès et l'équité, l'amélioration de la santé, la réactivité face aux usagers, l'utilisation efficiente des ressources et la faisabilité budgétaire, et une évaluation de leur impact. Enfin, l'*Examen* met en évidence les domaines dans lesquels d'autres mesures devraient peut-être être prises pour renforcer le système.

Le système de soins de la Turquie se rapproche progressivement des systèmes de santé de la plupart des autres pays de l'OCDE

Le système de santé de la Turquie est actuellement dans une phase de transition. Dans le cadre du programme gouvernemental de réforme de ce système, des réformes institutionnelles et organisationnelles sont en cours, qui visent à remédier au morcellement et aux doubles emplois dans les systèmes de financement de la santé et de prestation de soins, et à assurer l'accès universel à l'assurance-maladie et aux services de santé.

Avant 2003, le système de santé de la Turquie se caractérisait par la coexistence de plusieurs organismes publics différents pour le financement et la prestation des soins, certains intégrés verticalement tandis que d'autres s'appuyaient sur des relations contractuelles. Ces organismes desservaient des segments différents de la population mais la couverture était loin d'être complète. Des institutions de sécurité sociale couvraient les travailleurs salariés du secteur formel ainsi que les travailleurs indépendants et les fonctionnaires en activité ou à la retraite. Un programme financé par l'État couvrait les

personnes à faible revenu ne possédant pas d'assurance (programme de « Cartes vertes »). Or, les travailleurs du secteur informel représentaient 25 % de la population active mais quelques-uns seulement bénéficient d'une couverture en tant qu'ayant-droit. Certes, la majorité de la population était couverte par le biais d'un des dispositifs d'assurance maladie, dont la Carte verte, et tous les citoyens pouvaient prétendre à la gratuité des soins primaires et des soins hospitaliers d'urgence, mais la prestation des services posait de graves problèmes. Autrement dit, les assurés eux-mêmes n'avaient pas la possibilité d'accéder rapidement à des services de santé appropriés. Le ministère de la Santé exploitait un très vaste réseaux d'hôpitaux et de centres de soins primaires tandis que l'un des organismes de sécurité sociale gérait son propre réseau de structures. Il existait aussi des structures privées dont beaucoup n'étaient pas réglementées de manière effective.

Il existait des disparités entre régions et entre zones urbaines et zones rurales dans l'utilisation des services de santé et, en zone rurale, l'accès à ces services était sensiblement plus difficile et plus coûteux. L'efficience allocative des services de santé était médiocre, la majorité des dépenses de santé étant affectées non pas aux services de santé préventifs et de soins primaires, mais aux services de soins aux patients hospitalisés et de consultations externes, bien plus coûteux. Au sein de la population, la demande de services de santé préventifs et de soins primaires était très faible, notamment parce que les gens jugeaient la qualité des soins médiocre dans les structures de soins primaires et, plus généralement, dans le secteur public. La majorité des consultations en ambulatoire s'effectuaient donc en milieu hospitalier. En dépit de la mise en place d'un système de prestations de services de santé intégré, comportant quatre niveaux, le système d'orientation ne fonctionnait pas et les patients avaient pris l'habitude de contourner le stade des soins de santé primaire pour aller chercher des prestations à des niveaux de soins plus élevés.

Le Programme gouvernemental de réforme du système de santé, qui avait pour objectif de rendre ce système plus efficace en améliorant la gouvernance, l'efficience, la satisfaction des usagers et des prestataires de services ainsi que la soutenabilité budgétaire à long terme, est mis en œuvre depuis 2003. Les principales ambitions de ce programme étaient les suivantes : *i)* faire du ministère de la Santé une autorité de planification et de supervision ; *ii)* mettre en place une « couverture maladie universelle » (CMU) regroupant tous les citoyens de Turquie sous l'égide d'un seul et unique institut de sécurité sociale ; *iii)* étendre la prestation de soins, la rendre plus facilement accessible et l'humaniser davantage ; *iv)* améliorer la motivation des personnels de santé et les doter de connaissances et de compétences renforcées ; *v)* créer des institutions éducatives et scientifiques pour soutenir le système ; *vi)* obtenir des systèmes de contrôle de la qualité et d'accréditation pour favoriser des services de soins efficaces et de qualité ; *vii)* rationaliser l'utilisation des médicaments et la gestion des matériels et appareils médicaux, et *viii)* assurer l'accès à des données factuelles pour étayer la prise de décision par le biais d'un système d'information sur la santé digne de ce nom.

La mise en œuvre du Programme gouvernemental engagée en 2003 a entraîné des changements significatifs du système de santé. La majorité des hôpitaux publics, y compris ceux qui étaient auparavant gérés par un institut de sécurité sociale, sont désormais intégrés sous une seule tutelle (le ministère de la Santé), ce qui devrait permettre, en principe, de distinguer l'acheteur de soins de santé du prestataire. A la suite des réformes, les différentes institutions de sécurité sociale sont maintenant intégrées dans une seule et même institution, la SSI, et partagent des bases de données sur les

bénéficiaires et des systèmes communs de gestion des demandes et de l'utilisation de prestations. Le paquet de prestations est unifié pour les différents régimes d'assurance-maladie, et les mécanismes de rémunération des prestataires s'orientent vers des systèmes de paiement prospectif, dont la rémunération selon les performances, et non plus des systèmes de paiement rétrospectif morcelés de rémunération à l'acte. Avec la mise en application de la « loi sur la sécurité sociale et l'assurance-maladie universelle » en octobre 2008, un régime de payeur unique a été mis en place pour les patients du secteur public. Un système intégré de soins de santé primaires (inspiré du modèle du médecin traitant) est en cours de mise en œuvre dans 23 des 81 provinces que compte la Turquie, et les hôpitaux publics se voient accorder plus d'autonomie dans l'affectation des ressources mais, en même temps, ils sont censés fonctionner dans un cadre plus rigoureux de responsabilité *vis-à-vis* du ministère de la Santé.

En dépit de la forte amélioration de l'état de santé, de la satisfaction des usagers et de la protection financière, le système a encore besoin d'améliorer ses performances

En Turquie, l'état de santé s'est amélioré rapidement au cours des dernières décennies et, à certains égards, il s'est rapproché de la moyenne OCDE. L'espérance de vie moyenne en Turquie n'en demeure pas moins inférieure à celle de tout autre pays de l'OCDE, et la mortalité infantile reste plus élevée. Malgré les progrès accomplis dans le cadre du Programme gouvernemental, l'état de santé de la population turque semble légèrement inférieur à ce qu'il pourrait être quand on fait des comparaisons entre la Turquie et d'autres pays à revenu intermédiaire de la tranche supérieure, membres ou non membres de l'OCDE.

Les facteurs à l'origine de l'amélioration de l'état de santé en Turquie sont nombreux mais, selon toute vraisemblance, ce progrès s'explique pour une bonne part par l'augmentation et la rationalisation des dépenses de soins de santé. Si les dépenses totales et les dépenses publiques en matière de soins ne paraissent pas excessives (si l'on en juge par les niveaux de dépenses d'autres pays de l'OCDE), quand on compare la Turquie à d'autres pays à revenu intermédiaire de la tranche supérieure on constate que les dépenses publiques de santé (quelle que soit la façon dont on les mesure) sont égales ou supérieures à la moyenne relevée dans des pays comparables. Dans les trois ans qui ont suivi la mise en place du Programme gouvernemental (2003), les dépenses de santé ont certes progressé rapidement mais l'accroissement des dépenses publiques comme des dépenses totales semble être resté raisonnable car la Turquie connaissait aussi une croissance économique rapide.

Une longue suite d'améliorations de la couverture effective offerte par l'assurance-maladie en Turquie, dont la point culminant a été l'adoption d'une législation mettant en place la couverture maladie universelle en 2008, a permis d'améliorer à la fois la protection financière des pauvres confrontés à des dépenses de santé élevées, et l'équité d'accès aux soins pour toute la population. Auparavant, les niveaux de certains indicateurs de la santé étaient relativement bas en Turquie, ce qui tenait vraisemblablement à l'absence de couverture santé ou au caractère inadéquat des prestations pour certains des groupes les plus défavorisés de la population. L'existence, dans ce pays, d'une corrélation inverse entre accès aux soins et besoins de soins peut être illustrée au moyen de données régionales conduisant à penser qu'en 2007, la densité de médecins était inversement corrélée à la

mortalité infantile dans les provinces, malgré le fait que, dans le cadre du Programme gouvernemental, les effectifs médicaux aient sensiblement augmenté dans le sud et l'est du pays, là où les besoins sont les plus importants.

S'agissant des ressources du secteur de la santé, en Turquie, le rapport personnel infirmier/médecins est l'un des plus faibles observés dans les pays de l'OCDE, ce qui soulève des questions concernant l'éventail de qualifications approprié. Environ 30 % seulement des médecins exercent en tant que généralistes, ce qui a probablement contribué aux insuffisances dans le domaine des soins primaires qui ont été notifiées. La rémunération des médecins et autres personnels soignants s'est sensiblement améliorée avec la mise en place de la rémunération basée sur les performances en 2004, et a également augmenté pour les médecins choisissant de devenir médecins traitants. Pour autant, en 2005, la rémunération des généralistes salariés travaillant dans les centres de soins publics demeurait relativement basse par rapport aux niveaux observés dans d'autres pays de l'OCDE alors que la rémunération des spécialistes salariés paraissait relativement élevée. La rémunération relative des personnels infirmiers semblait concorder avec celle observée dans un certain nombre d'autres pays de l'Organisation. La consommation de médicaments a augmenté en volume, surtout en 2005 quand la couverture maladie s'est améliorée pour les titulaires de la Carte verte et les membres du dispositif *Sosyal Sigortalar Kurumu* (SSK). Plusieurs baisses du prix des médicaments sont intervenues ces dernières années, ce qui conduit à penser que les ressources sont mieux utilisées. Il reste cependant des interrogations concernant la rationalité et le coût-efficacité de la consommation de médicaments en Turquie.

Depuis la mise en place de la rémunération fondée sur les performances, le volume d'activité et la productivité des médecins semblent avoir fortement augmenté, si l'on en juge par le nombre de consultations par médecin qui a été notifié. Toutefois, même si l'introduction du système fondé sur le médecin traitant a progressé en Turquie, les consultations à l'hôpital continuent d'occuper une place plus importante que dans d'autres pays de l'OCDE. En 2005, la durée moyenne des séjours à l'hôpital était inférieure à la moyenne OCDE mais ce phénomène s'explique peut-être par la démographie de la Turquie. Par ailleurs, on ne dispose guère de données sur la qualité technique des soins médicaux dans ce pays mais on sait que les taux de vaccination des enfants se sont considérablement améliorés. La rougeole y a été pratiquement éradiquée en 2007. D'après les données sur la réactivité du système et sur la satisfaction par rapport aux soins reçus, il semblerait qu'avant l'adoption du Programme gouvernemental, les délais d'attente étaient longs et que les patients étaient peu satisfaits des soins dispensés dans les centres de santé et les hôpitaux. Après la mise en place de ce Programme, on a pu constater un raccourcissement des délais d'attente et une progression spectaculaire du niveau global de satisfaction concernant la qualité des soins de santé primaires et des soins dispensés dans les hôpitaux publics. Les patients turcs semblent particulièrement satisfaits du nouveau système du médecin traitant.

L'ambitieux programme de réforme du système de santé offre de nouvelles opportunités mais des difficultés subsistent

Le Programme de réforme du système de santé s'inspire à bien des égards des « bonnes pratiques » en matière d'élaboration et de mise en œuvre d'une réforme majeure du

secteur de la santé, y compris l'adoption de la couverture maladie universelle (CMU). A la fermeté de la détermination gouvernementale et de l'impulsion politique, conjuguée à l'ampleur de la réforme du financement, est venue s'ajouter la planification soigneuse des réformes de la prestation de services. Il serait prématuré de vouloir évaluer l'impact de ce Programme au regard de l'état de santé, de la protection financière et de la satisfaction des usagers mais, d'après les premières indications tirées des données disponibles, des progrès importants ont été enregistrés dans ces trois domaines. La Turquie est en train de réduire l'écart de performances par rapport aux autres pays de l'OCDE et, d'après un certain nombre d'indicateurs dont les coûts globaux, affiche de bonnes performances par rapport aux autres pays à revenu intermédiaire de la tranche supérieure ayant un profil comparable. De fait, les autres pays ont probablement beaucoup à apprendre de la récente réforme du système de santé en Turquie, surtout en matière de recours à la rémunération fondée sur les performances pour accroître la productivité des personnels.

Certaines problématiques datant d'avant la réforme n'en subsistent pas moins, et un certain nombre de nouveaux enjeux sont apparus. Pour le système de santé, la principale problématique subsistant en 2008 consiste à déterminer comment améliorer encore plus l'état de santé (pour le hisser au niveau moyen observé dans les autres pays à revenu intermédiaire de la tranche supérieure) et poursuivre ces réformes à un coût abordable compte tenu de l'évolution dans les domaines démographique, épidémiologique et nutritionnel. Enjeu lié au précédent : comment relever le défi tout en préservant la soutenabilité des dépenses publiques de santé. De par la conception du nouveau système de santé, il pourrait bien être difficile de maîtriser les coûts dans les années à venir, difficulté qui pourrait être aggravée par des ralentissements de la croissance. Pour relever ce défi, il faudrait mettre en place des mesures qui i) permettraient de maîtriser le taux de progression des dépenses de santé, ii) encourageraient de nouvelles améliorations de l'efficience, et iii) permettraient d'obtenir toujours plus d'équité en matière d'accès et de garantir en permanence un niveau élevé de protection financière. Un autre enjeu serait de dégager des recettes suffisantes pour assurer la solvabilité financière de la CMU.

Il conviendrait de maîtriser le rythme de progression des dépenses de santé

En matière de maîtrise des coûts des soins de santé, la Turquie a de bons antécédents mais les coûts du nouveau système de santé (dans lequel on ne peut plus tabler sur la limitation de l'accès aux prestations) pourraient fort bien augmenter plus rapidement. Il serait donc souhaitable dans l'avenir de plafonner strictement les dépenses publiques totales de santé de l'Institut de sécurité sociale pour permettre au gouvernement de maîtriser les dépenses publiques totales de santé, y compris la rémunération des prestataires privés. Le plafond devrait s'appliquer à l'ensemble des dépenses publiques affectées aux soins de santé primaires et aux hôpitaux, y compris les hôpitaux privés. Cette stratégie passera par la maîtrise soit des volumes de soins de santé, soit des prix (ou un panachage des deux), elle exigera de l'Institut de sécurité sociale qu'il joue un rôle actif en tant qu'acheteur et nécessitera une évolution appropriée du système de gestion des performances.

De surcroît, quand le système du médecin traitant sera étendu à tout le pays, il sera souhaitable de mettre en application la participation aux frais pour les personnes qui iront consulter en ambulatoire à l'hôpital sans y être adressées par leur médecin traitant, et de ré-instituer des pénalités de remboursement pour les généralistes qui multiplient les adressages à l'excès. Cette participation aux frais devrait aussi être appliquée pour les

personnes qui vont consulter de leur propre initiative dans des hôpitaux de plus haut niveau. Continuer à faire baisser le prix des produits pharmaceutiques et rationaliser davantage la consommation de médicaments (qui représente un tiers environ des dépenses de santé) sont d'autres instruments importants de maîtrise des coûts.

A moyen et long terme, il importe, quand les effectifs de médecins auront été suffisamment étoffés, de plafonner une fois encore, puis de maîtriser, le nombre de diplômés qui embrassent la carrière de médecin. Dans les systèmes de santé tels que celui de la Turquie, on constate en effet une corrélation positive entre les dépenses de santé et le nombre de médecins.

Il faudra continuer d'améliorer l'efficience

Pour favoriser le renforcement de l'efficience (ce qui peut aider à maîtriser les coûts et à faire un usage plus rationnel des ressources), les autorités devraient persévérer dans leur volonté d'achever la phase 2 du Programme de réforme dans les cinq ans à venir. Pour ce qui est des soins primaires, elles devraient poursuivre la mise en place progressive du nouveau système de médecins traitants et, en parallèle, le développement de services de prévention locaux. Même si l'augmentation des effectifs de généralistes risque d'augmenter les pressions sur les coûts à court terme, elle devrait contribuer à améliorer l'efficience à moyen et long terme en réduisant la charge qui pèse sur les services hospitaliers de consultations externes.

S'agissant des soins secondaires, il sera important de mener à bien le transfert de l'achat de services au SSI quand cet Institut sera doté d'une capacité de gestion à la mesure de la tâche, et quand les réformes relatives au concept de « groupe homogène de malades » (GMH) et aux groupes de tarifs de rémunération des consultations externes auront suffisamment progressé. En même temps, il est souhaitable de réformer le système de gestion des performances dans les hôpitaux pour s'assurer qu'il soit compatible avec les résultats d'autres réformes de la rémunération et qu'il récompense l'efficience et la réduction des coûts unitaires ainsi que l'augmentation du volume et de la qualité. Il conviendrait aussi de pérenniser les mesures qui confèrent plus d'autonomie aux hôpitaux à condition que ceux-ci affichent une capacité de gestion adéquate.

Plus généralement, il sera important d'investir dans les technologies de l'information (TI) et une information de meilleure qualité, dans l'évaluation des technologies de la santé, et dans les effectifs ainsi que les compétences des personnels infirmiers. Si l'on en juge par l'expérience des autres pays de l'OCDE, il y peut y avoir intérêt, semble-t-il, à confier aux personnels infirmiers un rôle plus important à l'appui des médecins en Turquie. On relève certaines lacunes importantes dans la mesure de la qualité des soins et dans l'aptitude à encadrer et calculer par des projections l'évolution des dépenses de santé, et d'évaluer les progrès de la technologie.

Accès : il faut continuer de progresser sur le plan de l'équité

La Turquie est virtuellement à même d'améliorer l'état de santé moyen de sa population en continuant de progresser sur la voie de l'équité d'accès aux soins, notamment dans sa dimension géographique. Le nouveau système de santé contribuera à améliorer cette équité parce que l'argent « suivra » le patient. Toutefois, des mesures devront être prises côté offre pour renforcer les capacités du système dans la partie orientale du pays et à Istanbul. Le choix de ces mesures pourrait être guidé par des

ajustements appropriés des « besoins » dans les Groupes homogènes de malades (GHM) et les groupes de tarifs de rémunération des consultations externes, par l'élaboration de formules de capitation pondérée pour les dépenses publiques de santé des régions, et par des incitations financières plus généreuses afin d'attirer des professionnels de la santé dans les zones déshéritées.

Il faudrait dégager davantage de recettes

Il importe que le SSI réfléchisse à des moyens d'augmenter l'affiliation des habitants au régime d'assurance-maladie et de percevoir les cotisations. Toutefois, sachant que les autorités turques s'emploient à diminuer la taille du secteur informel, il serait souhaitable de suivre de près la part des dépenses publiques de santé financée par les cotisations. En effet, ces dernières augmentent le coin fiscal sur le travail et, partant, encouragent le travail informel. Or, il est peut-être plus facile de dégager des recettes générales si cette forme de travail diminue. Il existe à l'évidence des possibilités d'accroître les recettes par le biais d'une amélioration de l'administration de l'impôt ainsi que de réformes de la fiscalité en vigueur.

Il serait important de s'attaquer à des questions de santé publique au sens large

A elle seule, l'amélioration des soins ne suffira probablement pas pour amener la Turquie à parité avec des pays similaires du point de vue de l'état de santé de sa population. Tout porte à croire que d'autres déterminants, non médicaux ceux-là (comme le niveau d'instruction, le tabagisme, le régime alimentaire et l'exercice physique), jouent un grand rôle dans la détermination de l'état de santé des individus. La Turquie a besoin de politiques intersectorielles plus vigoureuses, faisant intervenir plusieurs ministères en plus du ministère de la Santé.

D'autres décisions difficiles seront à prendre dans l'avenir

Les enjeux examinés ci-dessus conduisent à penser que le ministère de la Santé aura fort à faire pour toujours se comporter en bon gestionnaire. Il lui faudra surveiller la menée à bonne fin du Programme gouvernemental de réforme du système de santé, et assurer constamment le pilotage des prestataires publics de soins primaires et secondaires, même si ceux-ci gagnent en autonomie. Il sera également nécessaire que le ministère de la Santé prenne l'initiative des actions de coordination concernant tout l'éventail des questions de santé publique, en y associant d'autres ministères clés du gouvernement turc. Il serait souhaitable que le ministère de la Santé, l'Institut de sécurité sociale, le Trésor, le ministère des Finances et le Bureau national de planification créent un observatoire permanent des dépenses et des recettes et se concertent pour assurer la soutenabilité et la rentabilité du système de santé.

Synthèse des principales préconisations

- Encadrer solidement les dépenses publiques totales de l'Institut de sécurité sociale en matière de soins de santé.
- Mettre en application la participation aux frais pour les personnes qui vont consulter en ambulatoire à l'hôpital sans adressage par leur médecin traitant.
- Continuer de faire baisser le prix des produits pharmaceutiques et rationaliser la prescription des médicaments.
- Réguler l'entrée dans la carrière médicale à moyen et long terme après avoir étoffé les effectifs de médecins pour répondre aux besoins actuels.
- Poursuivre la mise en œuvre du Programme gouvernemental de réforme du système de santé dans les cinq prochaines années :
  - ❖ continuer à mettre progressivement en place le système du médecin traitant ;
  - ❖ continuer à développer et coordonner les services de santé publique locaux parallèlement à la mise en place du système du médecin traitant ;
  - ❖ mener à bien le transfert, à l'Institut de sécurité sociale, de la fonction d'achat des services de soins hospitaliers et primaires quand il aura acquis la capacité de gestion adéquate ;
  - ❖ terminer la mise en place des systèmes de rémunération fondés sur le concept de GHM et de groupes de tarifs des consultations externes, et élaborer de nouveaux dispositifs de transfert des risques aux prestataires suivant le principe de la gestion intégrée des soins ;
  - ❖ réformer le système de gestion des performances pour étayer la rémunération sur la base de GHM et mettre davantage l'accent sur l'efficience et le rapport coût-efficacité ;
  - ❖ continuer d'accorder une autonomie croissante aux hôpitaux dotés d'une capacité de gestion adéquate ;
  - ❖ investir dans des systèmes de technologies de l'information et de recueil de données plus solides pour fonder les décisions ;
  - ❖ développer une capacité d'évaluation des technologies de la santé et évaluer et surveiller les réformes de santé ; et
  - ❖ étoffer les effectifs et renforcer le rôle du personnel infirmier en Turquie.
- Prendre des mesures, côté offre, pour inciter le nouveau système de santé à améliorer l'équité de l'accès sur le plan géographique, en s'appuyant éventuellement sur des objectifs de capitation pondérée pour les régions
- Augmenter les affiliations et le paiement des cotisations à la CMU et veiller attentivement à sa solvabilité.
- S'attaquer aux questions de santé publique de portée plus vaste dans un cadre interministériel.
- Continuer de développer les capacités de bon gestionnaire du ministère de la Santé.

ISBN 978-92-64-05108-9
OECD Reviews of Health Systems
Turkey

Chapter 1

Historical Overview of the Turkish Health System Prior to Recent Health Reforms

Prior to the launch of the recent reforms to the Turkish health system – the Health Transformation Programme – in 2003, the system was a combination of a national health service, providing limited health services free of charge to the population, and a number of social health insurance schemes covering formal sector workers and their dependents. There was also a social assistance programme for the poor and vulnerable. The historical development of this system is described in Annex 1.A1. This chapter describes the 2003 health system and its problems, prior to the introduction of the Health Transformation Programme. It focuses on pre-reform financing and coverage arrangements for the population, organisation of the health service delivery system, provider payment arrangements and resource allocation mechanisms, as well as the role of the government.

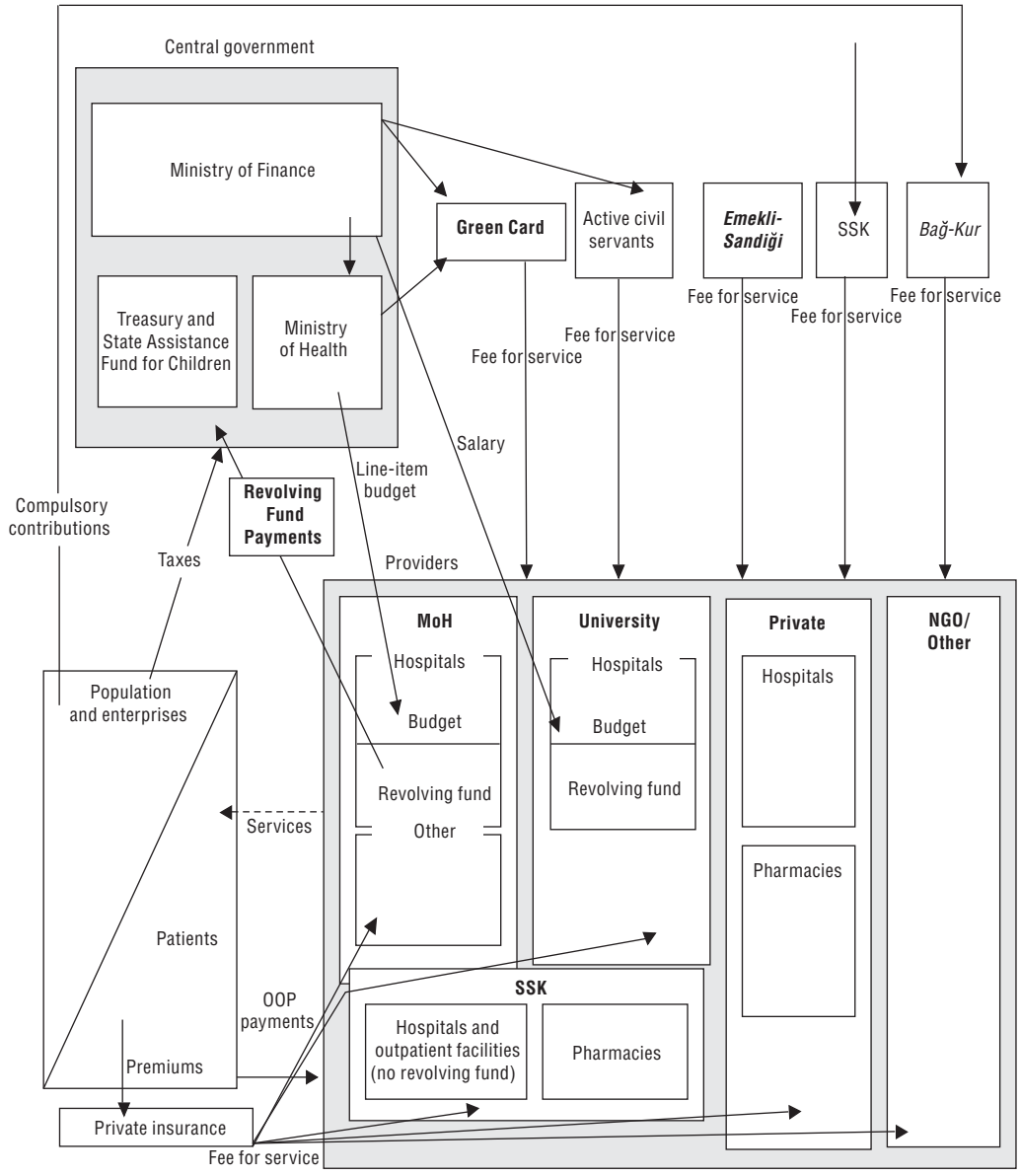
1.1. Health financing in Turkey in 2003

In 2003, the majority (approximately 60% to 70%) of total health financing in Turkey came from public sources and the remaining from private ones. Public expenditures on health in Turkey consisted of expenditures incurred by the Ministry of Health (MoH), the General Directorate of Coastal Health Services, Universities, the Social Solidarity Fund, other ministries and agencies, local governments, state enterprises, civil servants, and social security institutions. Private expenditures consisted of out-of-pocket payments, and private health insurance reimbursements for policies financed by companies and individuals. Figure 1.1 describes the flow-of-funds arrangements in the Turkish health sector in 2003.

At the core of public health financing arrangements in 2003 was the social security system, which was established in 1946 and had evolved significantly during the 1960s and 1970s. In this system, there were three separate health insurance funds: *i) Sosyal Sigortalar Kurumu* or SSK for blue and white-collar workers in the public and private sectors; *ii) Bağ-Kur* or the Social Security Organisation for Artisans and the Self-Employed; and *iii) Emekli-Sandigi* or the Government Employees Retirement Fund (GERF). Active civil servants were not included in GERF and their expenses were directly financed from the state budget. In 1992, the government introduced the Green Card or *Yesilkart*. The objective of the Green Card programme was to provide health benefits to the poor and vulnerable who were incapable of paying for health services. The Green Card programme was considered a transitional solution until Universal Health Insurance was introduced. Applications for the Green Card were evaluated and finalised by a Commission at the district level (the Administrative Council of the District). This Commission, which was established under the Provincial District Offices, determined eligibility based on the verification of applicants' incomes.

The **benefits package** differed across the different social security schemes. For example, SSK insurees were allowed to only use SSK *facilities* and pharmacies. *Bağ-Kur* insurees and dependents, on the other hand, were allowed medical examinations, laboratory tests, and inpatient and outpatient services from a wide range of providers

Figure 1.1. **Flow of funds in the Turkish health system up to 2003**



Note: SSK and *Bağ-Kur* operate semi-autonomously within the Ministry of Labour and Social Security (MoLSS).
Source: World Bank.

(public and private including MoH facilities). However, *Bağ-Kur* insurees and dependents were allowed to access health services only if they had paid premiums for at least 90 days prior to the time that the services were needed. *Bağ-Kur* contracted with a range of public and private facilities to provide services (*e.g.* Ministry of Health hospitals, university hospitals, private hospitals and non-governmental organisations such as the Red Crescent). *Emekli-Sandigi* had the most extensive benefits package among the various health insurance schemes, which included medical and non-medical services and access to all types of facilities, public and private. Payment mechanisms across the health insurance funds also varied. For example, SSK managed its own hospitals which were paid

according to line-item budgets, while *Emekli-Sandigi* and *Bağ-Kur* payments to providers were on a fee-for-service basis. Co-payment rates, however, were largely similar across the different health insurance schemes with minor exceptions.[1]

Health coverage: according to the State Planning Organisation (SPO), in 2003, approximately 85% of the population had some type of health coverage. The remaining 15% did not have access to formal health insurance, and were almost certainly not contributing to it but were implicitly covered for preventive and primary health-care services and emergency medical care delivered through the MoH network. SSK was the largest insurer covering 46.3% of the population, followed by *Bağ-Kur* which covered 22.3% of the population, and *Emekli-Sandigi* and the state budget which covered 15.4%. Coverage under private insurance in Turkey was insignificant (less than 0.5%) (Table 1.1). Official data on health insurance coverage should be treated with caution since the numbers are based on estimates rather than actual headcount. There were three major problems related to the health insurance coverage numbers from this period: *i)* many people were insured with more than one social security institution, and therefore showed up on multiple records; *ii)* the number of active members of the population was an indication of those registered under the program, but not necessarily those whose status was current, in that they were regular contributors (this is a particular problem with *Bağ-Kur*); and *iii)* the number of dependents was estimated, and not known with any degree of certainty. In contrast to the official figures reported by SPO, a household survey undertaken by the MoH in 2002 found that 67% of the population reported having health insurance. According to the Turkey Household Budget Survey which is a quarterly survey conducted by the Turkish Statistical Institute (TUIK), the percentage of the population covered by any health insurance in 2003 was 64%. Since both surveys are based on a statistically representative sample of the Turkish population, the significant differences with the official numbers is puzzling, further corroborating the fact that the official numbers suffer from multiple problems of reporting and estimation bias. In 2003, it is estimated that almost 46% of the labour force was working in the informal sector. Since health insurance coverage was estimated at almost 85%, there is a possibility that a substantial portion of informal sector workers were covered through the Green Card or as dependents of individuals with health insurance coverage under SSK, *Bağ-Kur* or *Emekli-*

Table 1.1. **Number of insured individuals by type of health insurance coverage, 2002-03**

Type	State Planning Organisation 2002	Household health expenditure survey 2002-03
	% of total population	% of total population
Civil servants	15.4[1]	
Active	–	7.4
Retired	–	5.1
SSK	46.3	33.5
Bağ-Kur	22.3	11.7
Private funds	0.5	0.4
Green Card	–	8.6
Others	–	0.5
Total insured	**84.5**	**67.2**

1. This figure includes both active and retired civil servants. *Source*: State Planning Organisation, *www.dpt.gov.tr*, Economic and Social Indicators and Turkey National Household Health Expenditure Survey 2002-03.

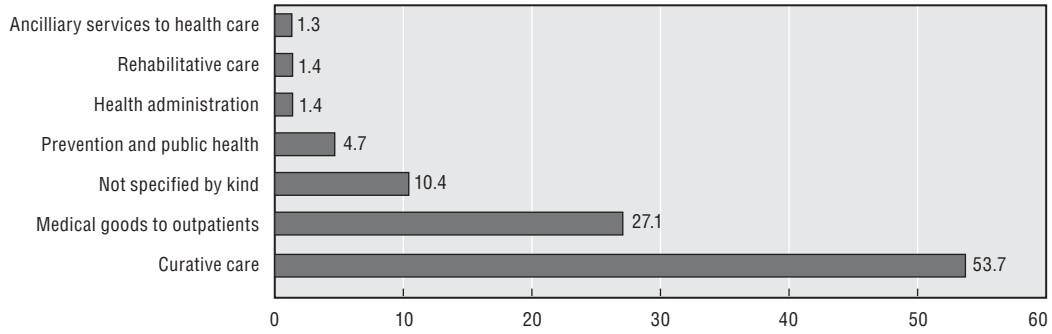
Source: World Bank (2006).

Sandigi. It is also possible that some informal sector workers, who could afford to pay premiums, also benefitted from the Green Card, while other groups were left out. For example, according to the 2003 Household Budget Survey, only 12% of the poorest decile (according to per-capita expenditure deciles) were covered under the Green card while among the higher deciles, Green Card coverage ranged from 1% to 8%.

1.2. Health expenditures and out-of-pocket payments

In the period 1996-2003, public expenditures on health as a percentage of GDP increased from 2% in 1996 to over 4% in 2003 (*OECD Health Data 2008*). According to the 1999-2000 National Health Accounts (NHA), private expenditures on health in Turkey constituted approximately 37% of total health expenditures. Based on a health provider survey covering the period 1999 and 2000, the NHA indicates that the majority (between 49-54%) of public expenditures were allocated for curative care, which includes both inpatient and outpatient health care.[2] Allocations for preventive and public health services were very small, around 5% (Figure 1.2).

Figure 1.2. **Functional classification of recurrent public expenditures on health, 2000**



Source: *Turkey National Health Accounts 1999-2000*, School of Public Health, Ministry of Health (2002a).

A study conducted in one geographic region of Turkey in 2002 covering approximately 900 households found that 25% of total out-of-pocket expenditures were informal. The majority of informal payments were in cash (71%) and for out-patient-services. Having health insurance did not protect patients from paying informal payments and in fact to obtain services covered under health insurance, patients had to first visit a doctors' office and make a payment. In public facilities, the poor paid more than the non-poor per capita, and the elderly paid more than the young, raising serious equity concerns. The authors of the study relate the existence of these informal payments as being most likely due to two factors: *i*) the fact that public sector health personnel were allowed to practice in the private sector and may have indulged in unethical practices including referring the patient to their private clinic after office hours, *ii*) under-financing of the benefits package or underinsurance which meant that health facilities faced resource constraints, and patients had to buy their own supplies. The study found that the majority of informal payments by the insured were for physicians' services. Green Card holders largely paid informal fees for physician services and for surgery. As the study points out, this indicates that even the poor were not exempt from referral to physicians' private practices after office hours (Tatar *et al.*, 2007).

1.3. Provision of health services[3]

In 2003, Turkey had a mixed health services delivery system consisting of public and private providers. The three key public providers were: *i)* the Ministry of Health; *ii)* SSK; and *iii)* the universities through university hospitals. The MoH was the major provider of primary and secondary health care and was essentially the only provider of preventive health services. In 2002 it managed approximately 700 hospitals, 6 000 health centres and village health centres, 247 tuberculosis control dispensaries, 234 maternal, child health and family planning clinics and 138 policlinics.

Primary health care: the implementation of the 1963 Law on Socialisation of Health Services had led to the formation of a four-tiered primary health care (PHC) system. Rural health posts, staffed by midwives, served units of population numbering 2000-2500 and were the main first contact facilities for rural populations. At the next level, were rural health centres, which were supposed to serve a population of 5 000-10 000 and were staffed by a salaried general practitioner, generally with only a basic medical degree, a nurse, two midwives and support staff (in total eight staff). Next, there was the district health centre expected to serve a population of 10-30 000 population staffed by doctors, a dentist, a pharmacist, several health officers, an environmental health technician, laboratory technicians, nurses and midwives (in total 16 staff). Finally, there was the provincial health centre with 28 staff including 22 health professionals and six support staff.

The main function of the health centres was to provide comprehensive preventive and primary health-care services for the population including: the prevention and treatment of communicable and non-communicable diseases; maternal and child health (including immunisations and family planning); public health education; environmental health; patient care; and the collection of statistical information on health. The health centres were supposed to serve as the first point of contact in the health-care systems for households and for managing referrals to higher-level medical institutions. In addition to this PHC network, there were vertical programmes, managed by relevant departments within the MoH, for services such as maternal and child health and communicable diseases.

Delivery of PHC services suffered from myriad problems such as: the lack of adequate resources (both staff as well as operational resources); fragmentation and lack of co-ordination with the vertical disease control programmes and higher level health facilities; low salaries of health personnel; distractions caused by dual practice; professional isolation; and minimal training. The referral mechanism did not really work and the majority of the population tended to bypass PHC to seek care directly at higher-level health facilities. Overall, the outpatient visit rate was low, but it was even lower for PHC facilities (Table 1.2). For example, the average annual number of outpatient visits per capita to health centres was only 0.8 in 2000 as compared with 1.6 in hospital outpatient departments. Another problem was the lack of any managerial autonomy for PHC managers, including autonomy to determine staffing levels and resource allocation.

To address the severe constraint on operating costs, revolving funds[4] were introduced in 2001 and PHC facilities were allowed to charge for diagnostic, rehabilitation and treatment services provided to SSK, *Bağ-Kur* and *Emekli-Sandigi* insurees. Similarly to the revolving funds in hospitals, these funds could be used to top-up staff salaries (up to 50% of revolving fund resources could be used for staff salaries) as well as to finance equipment and other inputs. To prevent discrimination against the uninsured, revolving funds for PHC were managed centrally by provincial health centres. By 2002, 45 revolving funds were in operation across PHC facilities.

Table 1.2. **Health-care service utilisation, 1993-2003**

	Out-patient contacts per person per year[1]	Inpatient admission per 100 individuals
1993	1.50	5.88
1994	1.60	6.17
1995	1.70	6.28
1996	1.80	6.50
1997	2.00	6.88
1998	2.10	7.12
1999	2.10	7.34
2000	2.40	7.53
2001	2.60	7.72
2002	–	7.91
2003	–	8.11
% change	**75.33**[2]	**37.90**

1. Includes visits to health centres and hospital outpatient departments.
2. 1993-2001.

Source: World Bank compilation based on Health for All Database, WHO/Europe, 2006.

The SSK PHC network consisted of a limited number of health stations and dispensaries that were supposed to provide primary care to SSK and also *Bağ-Kur* enrolees. The utilisation of PHC among SSK enrolees was lower than the national average and reflected the fact that generally the number of SSK PHC clinics was low, thereby limiting access. In areas where there was no SSK dispensary, SSK insurees used Ministry of Health facilities. However, many employers had a doctor providing basic health care to their employees.

Public hospitals: in 2002, there were approximately 654 MoH hospitals, 50 university hospitals and approximately 120 SSK hospitals (Ministry of Health, 2002b). The majority (80%) of MoH hospitals were meant to serve as secondary care institutions (general hospitals), providing specialised outpatient and acute in-patient services. MoH also owned specialised hospitals, as well as research and training hospitals that served as tertiary care facilities. University hospitals provided a full range of hospital services (outpatient, inpatient and tertiary care). The number of MoH hospitals has since then expanded, while the number of university hospitals remains the same.

MoH hospitals were financed from two sources: a line-item budget, and revolving funds. The line item budget from the Ministry of Finance financed: *i)* base staff salaries, *ii)* other incremental operating costs, and *iii)* investment expenditures. Staff salaries formed the majority (over 80%) of the line-item budget allocations. Hospital managers had limited flexibility in using line-item budgets. Revolving funds were financed from services rendered to *Bağ-Kur*, *Emekli-Sandigi* insurees and Green Card holders and fees paid by private patients. In general, revolving funds provided more flexibility over hospital budget management. For example, there was more flexibility over budget execution and procurement. Left-over resources at the end of the year could be carried over to the next year and there was more flexibility in budget allocations, including capital expenditures and making bonus payment to staff. For example, up to 50% of revolving fund revenues could be allocated for salary supplements to staff, provided there were no outstanding bills. However, in reality this was not the case and only small amounts were allocated for staff salary supplements. In the case of MoH hospitals, even those hospital managers using revolving funds did not have decision-making power over expenditures, and all budget execution decisions needed to be cleared by the MoH General Directorate of Curative

Services, based in Ankara. This highly centralised method of operation constrained the use of revolving funds for hospital operating costs. For university hospitals, revolving fund expenditures required the clearance of the University President based on recommendations of the hospital management council. Revolving fund revenues were the primary source of financing for Ministry of Health and university hospitals, covering more than 80% of the total hospital budget.

The budgeting process for public hospitals did not encourage efficiency. Hospitals were allocated a fixed amount per approved bed per day to cover supplies and maintenance of medical equipment. Utility expenditures were determined according to past consumption and personnel expenditures were allocated on the basis of number of staff positions. Hospitals relied on revolving funds to finance their operation and had an incentive to maximise service provision for insured or paying patients. Procurement processes were also not efficient since each MoH and university hospital took responsibility for procurement and procurement decisions were made by the hospital purchasing committee based on only three price quotations. On the one hand, this procurement method ensured speedy delivery of drugs and medical equipment, on the other hand, it did not obtain the most competitive price, particularly when the purchases were made by small district hospitals that procured small amounts.

Public hospitals in Turkey operated as traditional public sector institutions, with limited financial and management autonomy. Managers had no autonomy to hire or fire staff and all staffing decisions were made by the Ministry of Health (for MoH hospitals) and the SSK General Directorate of Health Services (for SSK hospitals). Health personnel were generally civil servants and could not be fired even if they were underperforming.

The public sector accounted for approximately 92% of total bed capacity in Turkey. In 2002, there were 2.3 beds per 1 000 population in Turkey. However, there was considerable regional variation, with Eskişehir in central Anatolia having 3.7 beds per 1 000 population while Sirnak in south-eastern Anatolia had 0.60 beds. Ankara, Istanbul and Izmir accounted for almost 36% of hospital beds. There was considerable country-wide variation in the size of hospitals. For example, health centres (*saglik merkezi*) which were part of the PHC network have ten beds while the largest public hospitals had up to 1 800 beds. Almost half of the hospitals in Turkey were (and remain) small hospitals (50 beds or fewer). The number of admissions in hospital was commensurate with bed capacity. MoH hospitals were responsible for over half of all hospital admissions in the country, followed by SSK hospitals and university hospitals.

Hospital occupancy rates in Turkey were about 60% (Ministry of Health, 2002b) and the average length of hospital stay was about 5.9 days in 2002. There was wide regional variation in these figures (for example, from 20-82% in hospital occupancy rates). General hospitals had lower occupancy than specialised hospitals. The occupancy rate in MoH district hospitals was particularly low. Due to lack of appropriate staff and equipment, district hospitals were in general underused. Overall, MoH hospitals had lower occupancy rates than SSK and university hospitals. Although hard data on quality of care and patient satisfaction from this time period is not available, qualitative information based on focus – group discussions and informant interviews indicates that university hospitals ranked first in terms of patient satisfaction and perceived quality of care, followed by SSK hospitals. Overall, MoH hospitals ranked the lowest, since MoH health personnel on low salaries had little incentive to see public patients and preferred to spend their time in private practice.

A study of technical efficiency in 573 Turkish hospitals concluded that less than 10% of acute general hospitals operated efficiently as compared with their counterparts. Inefficient, as compared with efficient hospitals, on average utilised 32% more specialists, 47% more primary care physicians and 119% more staffed bed capacity than efficient hospitals. They produced less outputs (13% less outpatient visits, 16% less inpatient admissions and 57% less surgical procedures) (Ersoy *et al*., 1997).

The number of outpatient visits to public hospital outpatient departments (OPDs) increased by 40% between 1996 and 2001. Access to outpatient services was open to anybody who was insured or willing to pay a fee and there was no referral requirement. As a result, one of the problems in public hospitals was the excessive overcrowding with patients who did not require specialised care, with doctors seeing up to 50 patients per day. This had negative implications for quality of care and patient satisfaction. Over 90% of visits were to general hospitals: MoH hospitals accounted for over half of these outpatient visits. There was also regional variation in the use of outpatient services, with the population of south-eastern Turkey having the lowest number of visits. This largely reflected the fact that the majority of the population in these provinces was not covered by health insurance and the Green Card did not cover outpatient services.

Private health services: before the 1980s in Turkey, there were hardly any private health services, especially hospitals. The majority of private sector activity was concentrated in outpatient care and in small clinics with fewer than 50 beds mainly providing maternity care. During the 1980s, as a result of the government's policies of providing subsidies to the private sector, there was an expansion in the number of private hospitals and clinics. Unlike the private facilities in the earlier period, these clinics and hospitals were of larger capacity, able to provide a full range of health services to the population.

Private outpatient services were provided in the following settings: *i)* private physicians who worked full time in private practice; *ii)* public sector health personnel who worked part-time in private practices; *iii)* private policlinics and medical centres; *iv)* private services provided in public facilities; *v)* health services provided by private doctors to companies with more than 50 employees. The Ministry of Health estimated that in the period 1998-2001, there were approximately 11 000 general physicians in private practice and an estimated 60% of public sector doctors worked in the private sector. Due to low salaries in the public sector, allowing public sector doctors to work in the private sector was a way to ensure an adequate number of doctors for the public sector. In 2001-02, there were an estimated 250 private hospitals in the country. Private facilities tended to be concentrated in the large cities (Ankara, Istanbul and Izmir). The majority of private facilities were financed by private patients, although social security institutions, such as SSK and *Bağ-Kur*, also had contracts with private hospitals providing specialised health services.

Public health services: the Refik Saydam Hygiene Centre Presidency, which is a semi-autonomous institution under the Ministry of Health managed an extensive network of public health facilities including disease control labs at the regional and provincial levels. The Directorate-General of Primary Health Care was also involved in the provision of public health services. At the provincial level, each provincial health directorate was responsible for the implementation of vertical disease control programmes. Environmental health officers, based in health centres were also responsible for public health programmes such as water safety, solid waste disposal, sewerage systems and food hygiene. In addition, mother and child health centres and family planning centres provide a range of preventive

health-care services such as immunisations, family planning, breastfeeding promotion and proper nutrition.

1.4. Governance arrangements in the Turkish health sector

There were multiple institutions and actors involved in the governance of the health sector. The MoH was the main government body responsible for health policy making. The three social security institutions operated as quasi-independent entities under the Ministry of Labour and Social Security (MoLSS), and in that sense the MoLSS also exerted an influence on the governance of the health sector, *vis-à-vis* benefits packages and payment arrangements with providers as well as occupational health. The role and function of the MoH *vis-à-vis* regulation of health insurance, including social health insurance, was unclear. The Ministry of Finance, Treasury and the State Planning Organisation were also involved in the governance of the health sector, mainly as regards health sector budgets, planning and determining capital investments.

Moreover, since health policy implementation required the passage of necessary laws and regulations, the Turkish Constitutional Court and the Grand National Assembly also exerted considerable influence on the governance of the health sector. The process of adopting laws was lengthy and, often, draft laws that were proposed were never discussed or adopted. This is well exemplified by the developments in the health sector in the 1990s (described in Annex 1.A1) when the MoH had a well-formulated health policy reflected in the country's five-year development plans, but laws that would allow the implementation of the policies (*e.g.* family medicine, Universal Health Insurance) were never passed.

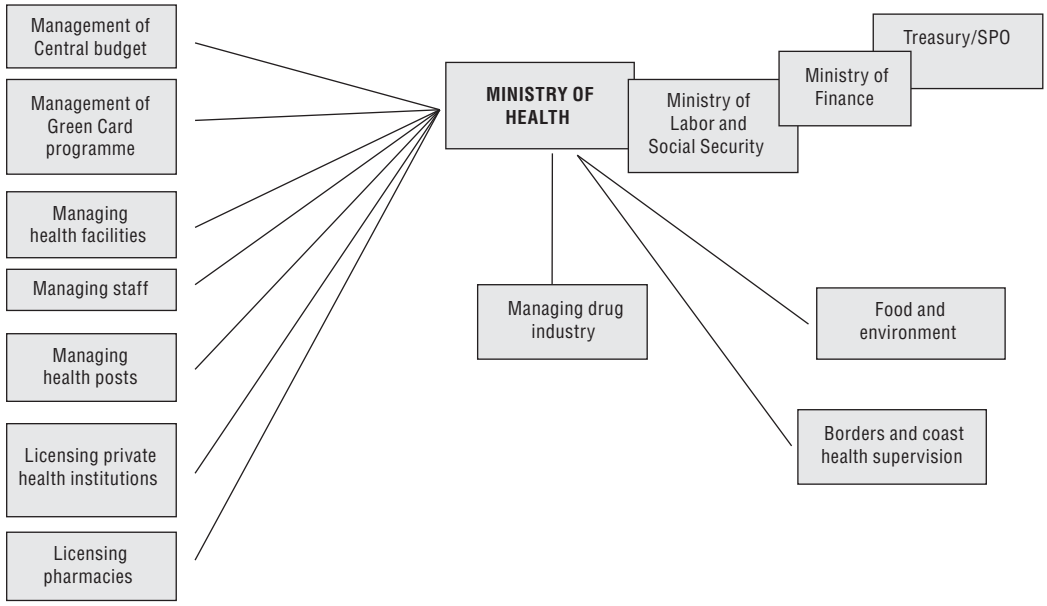
The main responsibilities of the Ministry of Health *vis-à-vis* the health sector included: *i)* planning and programming of the health services delivery system; *ii)* approving capital investments (although the State Planning Organisation also did this at a global level for all sectors); *iii)* developing programmes for communicable and non-communicable diseases; *iv)* regulating the production, prescription and dispensing of pharmaceuticals; and *v)* building and operating health facilities (see Figure 1.3). The MoH was overburdened with these multiple roles and responsibilities, including the provision function, thereby reducing its ability to carry-out the governance function effectively.

1.5. Conclusions

To summarise, in 2003, the following were the salient features of the Turkish health system.

1. A social health insurance system covering formal-sector workers, existed alongside a national health service-type of system managed by the MoH. There was also a social assistance programme covering health insurance for the poor and vulnerable (the "Green Card"). This led to a fragmented and duplicative health financing and delivery system.
2. Coverage under the formal health insurance scheme and the Green Card programme was high, covering almost 85% of the population. In the absence of more reliable data, this is the best estimate of health insurance coverage in Turkey at that date. Health insurance status was an important determinant of an individual's decision to seek care. Sick people and households without health insurance were much less likely to seek health-care services when ill, as compared to those with health insurance. Out-of-pocket expenditures for those without health insurance and for those under the Green Card programme were significantly higher than for those under the formal social

Figure 1.3. **Ministry of Health responsibilities in the health sector and accountability arrangements *vis-à-vis* other governmental bodies**



Source: Ministry of Health.

security schemes. Lack of health insurance and underinsurance (as under the Green Card programme) was concentrated among the poor who lacked formal-sector employment. This indicated the importance of expanding both the breadth and depth of coverage in the population to enhance financial protection (Box 1.1).

3. There were regional and urban-rural disparities in access to health services. Accessing health services in rural areas was significantly harder and more expensive. The large network of public sector health facilities underperformed due to resource constraints, under-training of staff, low pay, poor professional incentives and facilities, and the distractions of dual practice. Consequently, there was low productivity. Also noteworthy, is the geographical mal-distribution of staff. For example, MoH statistics (2000) indicated that 12% of health centres did not have doctors and two-thirds of rural health posts did not have midwives.
4. Allocative efficiency of health services was poor, with the majority of health expenditures allocated for more costly inpatient and outpatient services instead of preventive and primary health-care services. Demand for preventive and primary health-care services among the population was very low, largely driven by the low quality of care in primary health-care facilities. The majority of outpatient visits therefore occurred in hospital settings.
5. Despite the establishment of a four-tiered, integrated, health-services delivery system, the referral system did not work and patients routinely by-passed primary health care to seek care at higher levels. Low quality of care at the primary care level, combined with the absence of financial incentives to follow the referral chain and other factors, contributed to the problem.
6. Informal payments were rampant in the health sector, raising concerns regarding the equity, transparency and accountability of health sector financing. The phenomenon of

informal payments was largely linked to under-financing of insurance or underinsurance and the fact that public sector doctors were allowed to practice in the private sector, thereby contributing to unethical practices, such as their referring patients to their private practices after normal working hours in public facilities.

7. There were a large number of small hospitals with low bed occupancy and admission rates, raising concerns regarding clinical quality and resource management.
8. Governance arrangements in the health sector were fragmented and considerable power ultimately belonged with the Constitutional Court and Grand National Assembly.

Box 1.1. **Demand for health services in Turkey**

Household surveys carried out in Turkey between 1999 and 2001 indicate the following regarding household behaviors and demand for health care:

- Health care was far more accessible to urban than to rural populations. Eighty seven per cent of urban dwellers could walk to a health facility as compared with only 37% in rural areas. Fifty seven per cent of rural households found it difficult to reach a health facility because of transportation-related costs. Overall, the cost of health care for rural inhabitants was significantly higher than for urban residents. For example, an outpatient visit cost TRL 12 for urban households as compared with TRL 20 for rural households.
- Households in the two lowest quintiles were less likely to seek care when ill (75%) as compared with those in the two highest income quintiles (87%).
- Of those seeking care, 91% sought care for treatment. Demand for preventive health care was very low.
- Knowledge of health and health-care-related issues was positively correlated with illness recognition, utilisation of health services and use of preventive health services.
- The poor were less likely to be employed in the formal sector and therefore more likely to lack health insurance.
- Health insurance status was an important determinant in the utilisation of health services. Possession of any health insurance, including the Green Card increased the propensity of households to report an illness and seek care. Ninety per cent of households with insurance sought health care when sick as compared with 70% of households without insurance. Insurance was also a determinant of the level of health expenditures. Individuals without insurance, and individuals with a Green Card, spent more on health care as a percentage of total non-food household expenditures as compared with those holding insurance. For example, the mean expenditure for an outpatient visit for a person with a Green Card and a person without health insurance was TRL 22.6 and TRL 21.6 respectively. In comparison, a person with SSK insurance spent only TRL 8.3, while *Bağ-Kur* and *Emekli-Sandigi* insurees spent TRL 14.4 and TRL 10.6 respectively.
- Out-of-pocket spending on health was a greater burden for the poor as compared with the rich. For example, individuals in the lowest two income quintiles paid on average TRL 27 for a visit to a health centre as compared with approximately TRL 13 for individuals in the two highest quintiles.

Source: World Bank (2003), Vol. 2, Chapter 2: "Demand for Health Services".

Notes

1. There were co-payments for outpatient services expect for SSK pensioners and dependents who had to pay TRL 0.8 per outpatient visit. For inpatient services there were no co-payments. For outpatient pharmaceuticals, coinsurance rates for active workers and dependents under SSK, *Emekli-Sandigi* and *Bağ-Kur* were 20%, while for pensioners and dependents they were 10%.
2. This figure is derived from the 2000 Turkey National Health Accounts (Ministry of Health, 2002a).
3. This section draws heavily from World Bank (2003) especially Vol. 2 of the report (chapter on the supply of health services).
4. Revolving funds refer to extra-budgetary funds established in most public entities in Turkey in order to provide the public sector with a budget instrument with greater management flexibility compared with line-item budgeting. They originate in payments by social security institutions or private individuals for services offered by state institutions. Generally, revolving funds have less strict financial management controls on procurement and budget execution. Unspent funds can be carried over into the next year. There is more flexibility in resource allocation and more control over capital investments and human resources decision making, such as deciding on performance bonuses for staff.

ANNEX 1.A1

Historical overview of the Turkish health system and key policy developments[1]

The Ministry of Health (MoH) of Turkey was established in 1920. The initial focus of the MoH was on post-war reconstruction and formulation of key legislation to establish the Turkish health system. The foundations of the current public health system for Turkey were established during the period 1923-46. Several laws were passed which formulated the role and functions of the MoH, which during this period was responsible for planning, organisation and execution of health programmes. The focus was on preventive public health programmes and programmes to control communicable diseases such as tuberculosis, malaria and leprosy. The organisational model was "vertical." Diagnosis and treatment centres were established at the district level, and general hospitals were opened in several cities such as Ankara, Diyarbakir, Erzurum and Sivas.

During the period 1946-1960 health centres, which were supposed to provide integrated health services to the Turkish population, were established and all hospitals were transferred from local administrations to the MoH. The Social Insurance Organisation called *Sosyal Sigortalar Kurumu* or SSK was established in 1946 to provide health insurance to private-sector employees and blue collar public-sector workers.

In 1961, the Law on Socialisation of Health Services (Law 224) was adopted. The law provided the basis for the establishment of national health services in Turkey and stated that health services should be delivered in an equitable manner, continuously and in accordance with the needs of the population. This led to the establishment of the Integrated Health Service Scheme (IHSS). The law aimed at providing free (or partly free) health care to all citizens: and financing came from co-payments and allocations from the government's budget. The aim was to undertake the infrastructure development which would extend health care, including preventive and environmental health services and health education, to the whole country, and to make it easily accessible to all. The concept of health centres (established during the previous period) was further expanded to include health posts at the village level, as well as district hospitals. However, the huge capital investments such an expansion required were not forthcoming, and the majority of resources were allocated for staff costs, while infrastructure, medical equipment and other needs to provide care lagged behind.

In 1963, for the first time, health was included in the five-year development plans. The objectives of the first five-year development plan for the health sector were to: *i)* give priority to preventive health care; *ii)* provide public health services through the MoH;

iii) distribute health personnel evenly throughout the country; *iv)* promote community health services; *v)* encourage the domestic pharmaceutical industry; *vi)* support the establishment of private hospitals; *vii)* establish Universal Health Insurance; and *viii)* set up revolving funds[2] in government hospitals.

A general Health Insurance Law promoting the idea of Universal Health Insurance was subsequently drafted, but it was 1971 before it was forwarded to the Turkish Grand National Assembly. It was not adopted. In 1974, it was again presented to Parliament but was never discussed. In 1978, a Law on Full-time Practice for Public Sector Doctors was adopted and doctors were prevented from working in the private sector. A new law passed in 1980 (Law on the Principles of Disbursement and Working Conditions for Health Personnel) annulled this previous law. This law essentially allowed doctors and other health personnel to work part-time, including in the private sector.

During the period 1980-2002, Turkish citizens were granted critical constitutional rights with regards to access to social security and health services. According to the 1982 Constitution, all citizens have the right to social security and the state shall take the necessary steps to provide social security to all its citizens. The Constitution also includes articles that strengthen the role of the state in regulating health services, and provides for implementation of Universal Health Insurance. Between 1986 and 1989, the government adopted the Basic Law of Health Services (1987) and the Law on Launching Health Insurance through *Bağ-Kur* (the Social Insurance Agency for Merchants, Artisans and Self-employed). The Basic Law of Health Services also emphasized equity and access to health services and sought to correct the deficiencies of the 1960 IHSS scheme. Recognising that one of the reasons IHSS did not work was because of resource constraints, the Basic Law sought to increase financing for the health sector. Nevertheless, the success of the Basic Law was limited. Neither the appropriate laws that would support systemic reforms, nor a comprehensive health policy were adopted. Efforts at revitalising the health sector remained unfulfilled.

During 1988-93, the MoH and the State Planning Organisation (SPO) carried out a major health reform study to understand needs and identify directions for reforms. The National Health Policy was formally adopted by the government in 1990 and included, among other things, the introduction of Universal Health Insurance and family medicine in Turkey. This policy document established specific targets to be achieved and identified key health priorities such as maternal and child health (Annex Table 1.A1.1).

Table 1.A1.1. **The 1990 national health policy: targets for health (selected indicators)**

Focus area	Target	Target date
Maternal and child health	Under five mortality rate: 50 per 1 000	2000
	Infant mortality reduced by 30%, to 29 per 1 000	2000
	Maternal mortality rate: to 67 per 1 000	2000
Communicable diseases	Eradication of measles, polio, diphtheria, neonatal tetanus	2005
	Tuberculosis transmission reduced to 1 per 100 000	2005
Cardiovascular diseases	Under 65 mortality reduced by 15%	2005
Cancer	Under 65 mortality reduced by 15%	2005
Accidents	Mortality due to car, home and occupational injuries reduced by 25% (saving 3 000 lives)	2005
Inequality	Reach equal level of infrastructure among regions	2000

Source: National Health Policy, Ministry of Health (1993).

The introduction of Universal Health Insurance was revisited during the First National Health Congress in 1992, but no progress was made. Nevertheless, in the same year a major development in expanding coverage for the uninsured population occurred with the introduction of the Green Card programme (described in greater detail in Chapter 1). There was a change in government in 1993, and the national health policy took a back seat and was not implemented. From 1993 to 1997 Turkey had six different Ministers of Health and there was little stability in terms of health policies.

Health-care reforms continued to be included in the various development plans during this period. For example, the seventh development plan 1996-2000 aimed at: *i)* initiating, as soon as possible, a system of Universal Health Insurance; *ii)* separating service provision from financing; *iii)* giving hospitals autonomy to help them provide quality health services and free themselves from the constraints of a centralised management structure; *iv)* adopting the family medicine model for primary care and strengthening the delivery of preventive health services; and *v)* restructuring the MoH to strengthen its role in monitoring health services in the country.

In November 2000 and February 2001, Turkey faced a massive economic crisis: the currency depreciated by more than 100%, the inflation rate was 68% and the economy contracted by 8%. The economic crisis had particularly deleterious poverty and social impacts as the unemployment rate soared, and rising food prices and inflation made previously protected households vulnerable to poverty. The main impact on the health sector was a decrease in the number of formally insured people and an increase in the number of Green Card holders (3.2 million new Green Card applications were made during 2000-01).

By 2003, as has been indicated in Chapter 1, the state of the health system reflected developments in these previous periods. It was a combination of a national health service providing limited free health services to the population, a social insurance system covering segments of the population in the formal sector, and a social assistance programme for the poor and vulnerable.

Notes

1. This section draws heavily on the following documents: Ministry of Health (2007b, chapters on "Historical Overview of the Turkish Health System"); Savas *et al.* (2002); and World Bank (2001).
2. As has been noted in Chapter 1, revolving funds refer to extra-budgetary funds established in most public entities in Turkey in order to provide the public sector with a budget instrument with greater management flexibility compared with line-item budgeting. In the case of public hospitals, these funds originate in social health insurance payments and private payments for services rendered. Generally, revolving funds have less strict financial management controls on procurement and budget execution, unspent funds can be carried over into the next year, there is more flexibility in resource allocation, and more control over capital investments and human resources decision making, such as deciding on performance bonuses for staff.

ISBN 978-92-64-05108-9
OECD Reviews of Health Systems
Turkey

Chapter 2

Recent Health Reforms in Turkey

This chapter focuses on recent reforms to the health system in Turkey: the Health Transformation Programme (HTP) of the Ministry of Health, which includes the implementation of Universal Health Insurance (UHI). The HTP was conceived as a ten-year reform programme covering the period 2003-13. The reforms described here cover the period 2003-08.

2.1. The Health Transformation Programme

The HTP was designed to address long-standing problems in the Turkish health sector (as described in Chapters 1 and 3 namely: *i)* lagging health outcomes as compared to other OECD and middle-income countries; *ii)* inequities in access to health care; *iii)* fragmentation in financing and delivery of health services, which contributes to inefficiency and undermines financial sustainability; and *iv)* poor quality of care and limited patient responsiveness.

The HTP's objective is to make the health system more effective by improving governance, efficiency, user and provider satisfaction, and long-term fiscal sustainability. Key institutional and organisational changes envisioned under the HTP include:

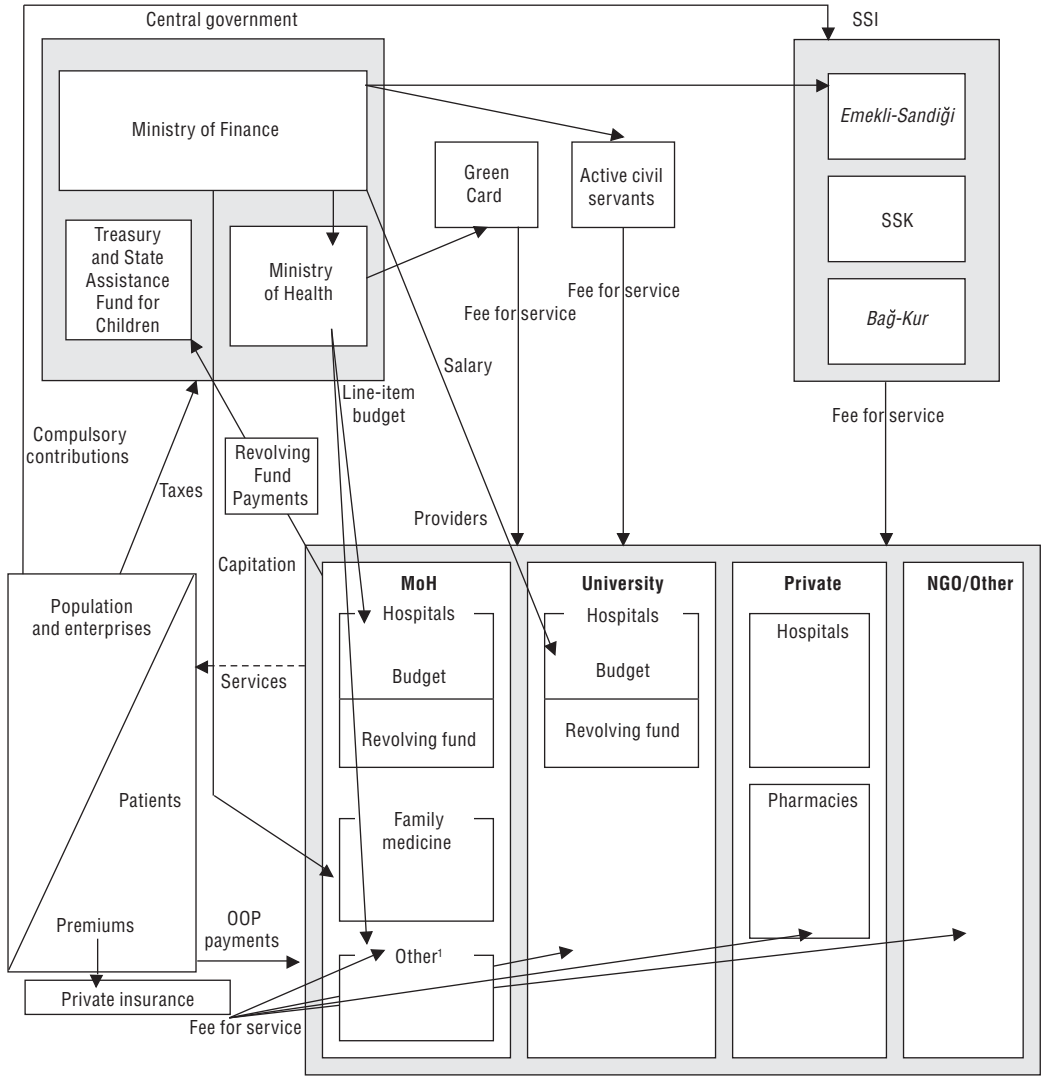
- Restructuring the MoH with the objective of strengthening its *stewardship function*. This entails ridding the MoH of its provider functions and instead strengthening and expanding functions such as: health surveillance/disease control, health regulation, planning and management capacity, monitoring and evaluation, health promotion, social participation in health, promotion of equitable access, quality assurance, human resources training, research in public health and control and disaster prevention.
- Establishing a *Universal Health Insurance* (UHI) system (also referred to as the General Health Insurance system) which would combine SSK, *Bağ-Kur, Emekli-Sandigi* and the Green Card programme under one umbrella, the Social Security Institute (SSI). Enrolment in UHI is to be mandatory, with contribution rates proportional to ability to pay and all beneficiaries entitled to the same benefits package. Contributions for those deemed unable to pay premiums would be paid from public funds on the basis of a means-tested system. The SSI, as the single purchaser in the health sector, is to contract with public and private providers to deliver the benefits package.
- *Reforming the health services delivery systems* by granting autonomy to public hospitals, creating a strong preventive and primary health-care system based on a model of family medicine, establishing an efficient referral system, and improving the quality of care in health facilities.
- *Addressing important cross-cutting issues* relevant for achieving the health-reform goals of the HTP, namely, ensuring the availability of motivated health personnel with adequate information and skills, strengthening education and science institutions to support the health system, and improving access to effective information in health-sector decision-making processes (Ministry of Health, 2007b).
- A timeline for the health sector reforms which have been implemented so far under the HTP is set out in Table 2.1, below. Figures 2.1 and Figure 2.3 depict financial flows in the Turkish health system prior to and after the implementation of UHI in 2008.

Table 2.1. **Timeline for health sector reforms in Turkey, 2003-08**

2003	2004	2005	2006	2007	2008
Ambulance services were made free-of-charge	Individual performance-based supplementary payment system implemented in MoH institutions	Green Card holders covered for outpatient prescription drugs	Global budget implemented for MoH hospitals	No payment required from citizens for primary care, even if not covered under social security.	New MoH Regulation on Private Outpatient Diagnosis and Treatment centres adopted that includes "Certificate of Need" requirement and new licensing procedures to be adopted by MoH
Mechanisms introduced so that the system of patients being held in hospitals as pawns due to non-payment of fees was abrogated	Green Card holders covered for outpatient services	Institutional and quality criteria added to performance-based supplementary payment system in MoH institutions	Implementation of Law 5502 (integration of social security institutions) begins.		Amendments to Social Security and UHI Law adopted by the Grand National Assembly and signed by the President of the Republic
Total quality management (TQM) put in place in MoH	Reimbursement Commission responsible for reimbursement decisions established according to Ministry of Finance decree	SSK pharmacies closed and members allowed to access private facilities	Family medicine implemented in Eskişehir province	New Health Budget Law adopted (SUT) according to which: *i)* referral requirement from MoH hospital to university hospitals removed for SSK and *Bağ-Kur*; *ii)* patients with chronic condition can refill prescription at pharmacy without authorisation from physician first; *iii)* bundled (fixed-price) payment for outpatient and inpatient procedures based on CPT and ICD-10 introduced in all MoH and university hospitals and private hospitals under contract with the SSI; *iv)* hospitals under contract with the SSI required to provide in-patient pharmaceuticals and medical devices (covered by insurance) for free, and would be fined if they charged patients; *v)* all MoH, university and private hospitals under contract with the SSI required to report claims through MEDULA	Implementation of UHI begins. Green Card programme brought under SSI. Green Card holders to receive same benefits as enrolees in other health insurance schemes under UHI
Performance-based payments piloted in ten MoH hospitals	Right to choose a physician system implemented in MoH hospitals	SSK hospitals transferred to the MoH	Family medicine implemented in Edirne, Denizli, Adiyama and Gumushane provinces	Ambulance services made more accessible in hard-to-reach areas in winter	Pentavalen vaccine introduced in routine immunisation programme
Vaccination days organised in the context of the national campaign of vaccination against measles	Iron supplements distributed free of charge to pregnant women nationally	Co-payment required for Green Card for pharmaceuticals	Pharmaceutical expenditure tracking system established in SSI and work on an integrated claims and utilisation management system for SSI (MEDULA) initiated	Family medicine implemented in Elazig, Isparta, samson and Izmir provinces.	Tobacco Control Law passed banning smoking in closed and open public places.
		Family medicine first implemented in Duzce	Public-private Partnerships (PPP) for Health Law adopted by the Grand National Assembly		
		Licensing regulation for pharmaceuticals passed	Measles, mumps and rubella (MMR) vaccinations included in the routine vaccination programme		

Source: World Bank compilation based on Ministry of Health and SSI data.

Figure 2.1. **Main financial flows in Turkey's health system, December 2007**



1. Lower-level MoH institutions, such as health centres, dispensaries, village posts, or other primary health institutions do not have a budget or revolving funds that are individually managed; instead, the provincial health directorates manage the institution's finances and are in control of the unit's operations (Mollahaliloğlu *et al.*, 2006, pp. 146-147). A nearby hospital may also manage the revolving fund of some lower-level institutions.

2.2. Health coverage and health financing reforms in Turkey under the HTP (2003-08)

Synchronisation of health benefits and coverage

Several reforms have been implemented to harmonise health benefits across the different health insurance schemes, as well as Green Card holders. In 2005, Green Card holders were given access to outpatient care and pharmaceuticals. With this change, Green Card holders were given access to the same benefits as SSK, *Bağ-Kur* and *Emekli-Sandigi* enrolees. The objective of this reform was to enhance financial protection and access to care for Green Card holders.

In 2005, SSK beneficiaries were given access to all public hospitals and pharmacies. In 2006, the pharmaceutical positive list across all the health insurance schemes, including (in effect) Green Card holders, was integrated.[1] In 2007, legal measures mandated that all

citizens of Turkey would have access to free primary care, even if they are not covered under the social security system. Under the 2007 Health Budget Law (*Saglik Uygulama Tebligi* or SUT), benefits across the formal health insurance schemes of SSK, *Bağ-Kur,* and *Emekli-Sandigi* were further harmonised.

Prior to the SUT, there was no referral requirement for SSK and *Bağ-Kur* enrolees for visits to MoH hospitals, but there was a referral requirement for accessing university hospitals. This referral requirement was removed. Access to private health facilities remained the same as before, *i.e.,* SSK and *Bağ-Kur* enrolees were allowed to access outpatient and inpatient services in private hospitals with which the health insurance scheme had a contract. A referral was required for accessing outpatient and diagnostic services in a non-contracted private facility. With these changes, the benefits of SSK and *Bağ-Kur* beneficiaries were improved to the level of *Emekli-Sandigi*.

The operationalisation of the Social Security and UHI Law (in October 2008) has completed the harmonisation of the benefits package; Green Card holders have now formally joined UHI and will receive the same benefits package that other beneficiaries have been receiving since the July 2007 Health Budget Law. Under the recently approved Social Security and UHI Law, changes are also envisioned in the contributory and non-contributory elements of UHI. Under the contributory scheme, 12.5% of pensionable salaries of blue-collar employees in the public and private sectors, active civil servants, white-collar employees and the self-employed will be collected. Of this amount, the employer's contribution is 7.5%. For the non-contributory system, the law alters both eligibility and financing of the current Green Card system, and a new means-tested system will be introduced. The new means-tested mechanism is expected to have several impacts. First, some portion of the population that is currently under the Green Card is not expected to qualify for non-contributory health insurance. For this group, the Social Security and UHI Law defines a reduced premium rate which is supposed to create incentives for this group to join. The non-contributory arm (for which the government will make the premium contribution) and the reduced premium rate are the main mechanisms for enrolling informal-sector workers in UHI.

Administrative harmonisation of separate health insurance schemes and the creation of a single-payer system

In 2006, Law 5502 was adopted by the Turkish Grand National Assembly. This law, which was meant to accompany Law 5510 (Law on Social Security and Universal Health Insurance), aimed at unifying the three different social security and health insurance schemes (SSK, *Bağ-Kur* and *Emekli-Sandigi*) into one unified social security institute. Implementation of this law has been underway since 2006. As a result, there currently exists within the SSI, a Universal Health Insurance Fund (UHI Fund).

A claims and utilisation management system called MEDULA has been established to process claims for all the health insurance funds including the Green Card. Under the 2007 Health Budget Law (SUT), all public and private health facilities under contract with SSI are required to submit claims through the MEDULA system. The establishment of a unified claims management system has standardised the submission of claims across all the health insurance funds and contributed to the establishment of a virtual single-payer system, even in the absence of the UHI Law.

2.3. Relationship between purchaser and provider

An important objective of the HTP, is to get rid of the previous fragmentation and duplication in purchasing and provision functions and to create uniform institutional and accountability relationships between purchasers and providers. The first change in this direction was taken in 2005, when SSK gave up its provision function to the Ministry of Health. Transfer of the Green Card programme to the SSI was planned under the Social Security and UHI Law. However, since the Social Security Law was subject to a constitutional court challenge and therefore not implemented as planned on 1 January 2007, the MoH remained in charge of the Green Card programme. Under this programme, the MoH receives an annual allocation from the Treasury as part of its line-item budget and uses these funds to finance expenditures at the hospital level for Green Card beneficiaries.

As of September 2007, however, in preparation for unification of the Green Card programme under SSI, MoH hospitals are required to submit information on utilisation of health services by Green Card beneficiaries to SSI. In 2006, in response to rapidly growing MoH expenditures, the SSI negotiated with MoH a capped annual budget for all 850 MoH hospitals (global budget for MoH hospitals). With this arrangement, and with the fact that the MoH has retained the function of managing the Green Card programme, the MoH has continued to function as a very dominant purchaser and provider, funding and managing a large network of primary care providers and hospitals.

In order to improve performance of MoH hospitals, the MoH has also introduced some elements of "internal markets", whereby the MoH Performance Management and Quality Improvement Unit implements a pay-for-performance scheme in MoH hospitals, linked to institutional performance criteria (see Box 2.1 for details on the performance management system). Essentially, this means that purchaser-provider relationships in Turkey are under transition. The relationship between SSI and university hospitals and private facilities operates under a more traditional purchaser-provider model, whereby the SSI contracts with individual university and private hospitals to deliver services included in the benefits package.

At the beginning of the HTP, there were few changes to payment mechanisms. Payment by health insurance funds was on a retrospective basis (fee-for-service) and fee schedules and payment mechanisms across the different health insurance funds and types of hospital (*i.e.* university, public and private) were not co-ordinated. In 2007, under the Health Budget Law (SUT), the SSI developed a bundled price for outpatient and inpatient health services, based on procedural and ICD-10 coding systems. The introduction of the same price across all health insurance funds and public and private hospitals was the first step in moving towards a prospective-payment system in which money would follow the patient (as in a fee-for-service system).[2]

As has been mentioned above, a global budget for MoH hospitals was first introduced in 2006. This is a capped budget amount, annually negotiated with the MoH, reflecting historical expenditure levels and medium-term budget forecasts by the Treasury. MoH hospitals are paid a monthly amount determined by the MoH based on the global budget. These payments are adjusted to meet the global budget cap, and end-year claims may not be paid if spending exceeds the cap.

The amended Social Security and Universal Health Insurance Law adopted in April 2008, specifies payment mechanisms for state hospitals. For state hospitals, it is expected that the SSI will adopt global budgets with DRGs. For private hospitals, the payment mechanism is

Box 2.1. **Performance management in health: the performance-based supplementary payment system (PBSP)**

A performance-based supplementary payment system (henceforth referred to as the PBSP system) was introduced in MoH hospitals in 2004. It was initially piloted in ten hospitals and subsequently expanded to all MoH health facilities. When SSK hospitals were devolved to the MoH in 2005, the PBSP system was extended to these hospitals. Currently all 850 MoH hospitals and primary health-care facilities have in place the PBSP system. This system does not exist in other public institutions providing health care (*e.g.* university hospitals).

The main objective of the PBSP system is to encourage job motivation and productivity among public sector health personnel. When the HTP was launched, it was recognised that the human resources crisis in the public sector would be a major impediment to achieving HTP goals. At the time of launch of the HTP, the ratio of health personnel to population was lower than in other middle-income countries and OECD countries (as described earlier in this chapter and in Chapter 3), the majority of public doctors worked part time, and doctors preferred to work in the private sector. As a result, there was overcrowding in public hospitals, long waiting times to see a doctor and low patient and provider satisfaction with the health system. The PBSP system was considered a key intervention to address these problems. The PBSP is a critical component of the HTP aimed at enhancing performance management in MoH hospitals, and focusing on quality of care, efficiency and patient satisfaction.

What is the PBSP system and how does it work? Essentially PBSP is an additional payment health personnel receive each month in addition to their regular salaries. The base salary is paid from the MoH line item budget (under health personnel salaries). The performance-based payments are paid from the revolving funds that are financed mainly from the general insurance system.

The following factors determine how much health personnel will receive as performance-based payments. First, the total amount that health facilities can allocate to performance-based payments to health personnel is capped at 40% of revenues. Some hospitals may choose to allocate less than the 40% depending on other needs in the hospital (for example, if laboratory equipment needs to be upgraded or the hospital needs to hire more auxiliary health personnel). The hospital management is responsible for deciding how much will be allocated for performance based payments within the limits defined by the Ministry of Health. Moreover, individual bonuses for staff are capped at a certain multiple of basic salary. This means, for example, that a specialist earning TRL 1 000 per month in basic salary can receive a maximum bonus of TRL 7 000.

Second, this total (capped) amount is subsequently adjusted based on the institutional performance of the health centre or hospital. Every health centre and hospital is given a score from 0-1 based on institutional performance indicators and the performance-based bonuses are multiplied by this factor. For example, if a hospital wishes to devote 40% (the capped limit) to staff bonuses, and its institutional performance score is 0.8, then in reality only 32% can be devoted to staff bonuses. This places a high premium on good institutional performance and balances the individual incentives for high service volume with group incentives for overall institutional quality. The MoH has established five categories of indicator to measure the institutional performance of hospitals, each of which carry equal weight. These indicators largely target the structural quality of care and patient and provider satisfaction. The five categories include: *i)* access to examination rooms; *ii)* hospital infrastructure and process; *iii)* patient and caregiver satisfaction; *iv)* institutional productivity (bed occupancy, average length of stay); and *v)* institutional service targets (caesarian-section rate, share of doctors working full time, surgery points per surgeon and per operating room, and the reporting of scores for the performance monitoring system to the MoH).

Box 2.1. **Performance management in health: the performance-based supplementary payment system (PBSP)** *(cont.)*

Third, an individual-level performance score is calculated for each staff member. This score is used to determine how the aggregate amounts of bonus payments for a hospital are distributed across individual health workers.

For physicians the individual performance score depends first on the number of procedures performed by that staff member. Each clinical procedure carries a particular point level that is determined by the Ministry of Health.

The total points score for a physician is then adjusted by a job-title coefficient that is meant to measure workload aside from providing clinical care for different types of doctors (*i.e.* administrative duties, teaching, etc.) This adjustment varies only by job title not by individual. The score is also adjusted by the number of days the person has worked in the year. The score is adjusted depending on whether the person is employed full-time or part-time in the hospital. The current coefficient for full-time status is 1 but for part-time status is 0.4. This adjustment was put in to encourage full- time practice in public hospitals and discourage "moonlighting" in the private sectorp

not defined but the SSI is mandated to establish appropriate payment mechanisms based on the scope of services provided. This provision gives the SSI the legal backing to implement payment mechanisms such as global budgets, or case-mix based payment systems, based, for example, on Diagnosis-related Groups or DRGs. Moreover, the UHI Law allows "extra billing" by private providers, whereby, based on detailed criteria adopted by the Council of Ministers, private providers will be allowed to charge up to 100% above the price paid by the SSI. The extra charges are to be paid by patients on an out-of-pocket basis. Secondary legislation recently adopted by the SSI, limits the amount that private hospitals can charge to up to 30% above the price paid by SSI.

A pilot project on paying hospitals, based on Diagnosis-related Groups (DRGs), has been ongoing since 2006. Under this project, the Australian DRG system is being adapted to Turkey. Hospital cost data have been collected and analysed from almost 50 hospitals and base costs and relative weights have been developed. The next step is to start implementing DRGs in selected public and private hospitals under contract with the SSI.

2.4. Service delivery reforms

Strengthening primary care including family medicine implementation

A pilot family-medicine implementation law was adopted by the Turkish Grand National Assembly in 2004, thereby creating the necessary legal framework for piloting family medicine with capitation payment. Under the model of family medicine currently under implementation in Turkey, salaried general practitioners working at the primary-care level (*e.g.* in MoH primary health-care centres) or at the secondary-care level (*e.g.* in outpatient departments of MoH hospitals) are given an option to take a leave of absence from their public sector jobs and take up a position as an independent, capitated, family doctor. These doctors have a right to return to their original public sector jobs at any time.

In order to qualify, these doctors must complete a ten-day, first-phase orientation training course on family medicine. This course covers the principles of family medicine practice, communication, clinical methods and epidemiology. The trainers are generally professors of family medicine from accredited universities in Turkey. Since there are

not enough graduates of family medicine from existing programmes, a recertification programme is necessary.

Once the orientation training is complete, family doctors are given a monthly capitation payment based on the number of persons enrolled with them. In urban areas, it is an open-enrolment system and individual members of the population can choose their family doctor, but in peri-urban areas, where there is not enough choice of family doctors, the population is assigned to specific doctors based on catchment areas. There are both group practices and solo practitioners. The family doctors are allowed to operate out of primary health-care centres owned by the MoH and have to pay a monthly rent for this amenity. The capitation payments cover salaries and all other expenditures by the family doctors, including the purchase of necessary diagnostic equipment for the practice.

A portion of the capitation payment is paid on the basis of achieving performance benchmarks which include achieving specified levels of vaccination rates, ante-natal visits and referrals. For example, the greater is the number of referrals, the lesser the points assigned to the family doctor. Continued training in family medicine is also a requirement and all family doctors will have to complete the second-level training, which is more intensive, focusing on the promotion of professional knowledge and skills. Until July 2006, a mandatory referral requirement was in place: family medicine clients were required to obtain a referral before they could receive secondary care from a hospital. However, this requirement was suspended due to the high work burden on family doctors.

The implementation of family medicine began with a pilot in Duzce and is currently operational in 23 out of 81 provinces in Turkey. Approximately 20% of Turkish citizens are enrolled with family doctors. The ratio of family doctors to population is low (1:3 400). In most countries that have implemented family medicine, the ratio of family doctor to population is on average 1:1 200. It was the low family physician ratio that forced the suspension/abandonment of the referral system, referred to above. Moreover, since the law only allows piloting of the model, a framework law on family medicine will eventually have to be adopted if there is to be institutional sustainability. It is unclear when the government plans to submit such a framework law to the Grand National Assembly.

While the family medicine model is being implemented incrementally, efforts are also being directed under the HTP to strengthen the existing preventive and primary health-care network in Turkey, so that eventually family doctors and preventive health centres can work in a synchronised manner to achieve better population health. In provinces where family medicine is under implementation, community health centres are being established. These centres provide integrated preventive, diagnostic, curative and rehabilitation services and are responsible for overseeing preventive health services such as vaccination campaigns, and reproductive and child health services. In provinces where family medicine is not under implementation, the old system of health centres remains operational.

One of the biggest barriers to effective implementation of the family medicine system, to date, is the shortage of doctors in the country (especially general practitioners). Unless this shortage is addressed, it will be difficult to implement the full "gatekeeper" model in family medicine where family doctors control referrals to higher levels.

Reforming Ministry of Health (public) hospitals in Turkey

One of the key reforms implemented under Phase I of the HTP, is the integration of all public facilities (with the exception of university hospitals and health facilities belonging to the Ministry of Defense) under the Ministry of Health. This integration, which took place

in 2005, helped SSK rid itself of the provision function and only focus on purchasing, since SSK hospitals were integrated under the MoH. The objective behind this reform was to harmonise management and payment mechanisms across all public hospitals and to pave the way towards autonomy for these hospitals. The integration was expected to increase access to hospitals substantially and to improve their allocative and technical efficiency through the adoption of the same performance management model that MoH hospitals had successfully adopted earlier on, which had resulted in higher productivity and efficiency (see Box 2.1 and Chapter 3).

It was recognised early on in the implementation of the HTP, that country-wide implementation of a hospital autonomy model by 2008 was far too ambitious. Therefore, mid-way through the HTP, the government instead decided to pilot hospital-autonomy reforms. A pilot, hospital-autonomy law (Draft Law on Pilot Implementation of State-Owned Hospital Unions) was drafted in 2007 and submitted to the Grand National Assembly for consideration. It was still under discussion when this report was prepared in 2008. The law sets out the principles of hospital governance based on a public-enterprise model whereby hospitals joining the pilot project would be managed by boards, but remain affiliated to the MoH. The law offers the possibility for the creation of a joint hospital union at the regional level, consisting of a network of hospitals that would jointly undertake programme planning, budgeting and implementation. Pilot hospital unions would have greater autonomy and flexibility over hiring health personnel and making resource allocation decisions. Hospital employees would no longer be classified as public employees and would no longer have the right to life-long employment in the health sector. The MoH would be responsible for guaranteeing quality of care and adherence to MoH standards in hospital unions.

Since the plans for the implementation of hospital autonomy changed during Phase I implementation of the HTP, selective hospital reforms were implemented with the objective of making public hospitals more client-responsive and productive and improving the quality of care provided. The reforms gave hospitals more autonomy and flexibility to carry out the service delivery function within an accountability framework which emphasised quality, efficiency and effectiveness of care. The reforms carried out to date include: *i)* granting hospital managers more autonomy and flexibility over the management of revolving funds, as well as procurement and investment decisions; *ii)* implementing a performance-based supplementary payment system (see Box 2.1); *iii)* outsourcing of hospital clinical services (diagnostics) to the private sector (public-private partnerships); *iv)* upgrading health information systems, and *v)* implementing hospital quality and efficiency audits.

The reforms are underpinned by training programmes for hospital managers.

Private sector provision of health services and public-private partnerships

Under UHI, the Social Security Institute is contracting with private facilities for the delivery of outpatient and inpatient health services. Approximately 1 000 private facilities currently have contracts with the SSI of which 350 are private hospitals. Provider payment methods, such as allowing private hospitals to implement "extra billing" were adopted by the SSI to stimulate private sector interest in contracting with the SSI. These mechanisms are counterbalanced by increased strengthening of the regulation of private provision by the MoH. In February 2008, a new regulation was adopted by the MoH which will implement a "certificate of need" requirement for new private-sector hospitals, outpatient clinics and diagnostic centres. The regulation is expected to have a significant positive

effect on ensuring an effective, better-qualified and needs-responsive operation of public and private establishments throughout the country. In 2006, a Public-Private Partnership (PPP) Law for the health sector was adopted and a new PPP unit was set-up under the MoH, mandated to pilot PPPs in the health sector. Several PPP initiatives that would involve the private sector in building new MoH research and training hospitals are planned for implementation in 2008.

2.5. Governance reforms under the HTP

In 2005-06, a broader Public Administration Framework Law, which would create an enabling legal environment for restructuring the MoH was submitted to the Grand National assembly. This law, if passed, would have allowed governance arrangements in the health sector to change significantly, and would have helped to establish quasi-independent units responsible for health sector regulation and public health.

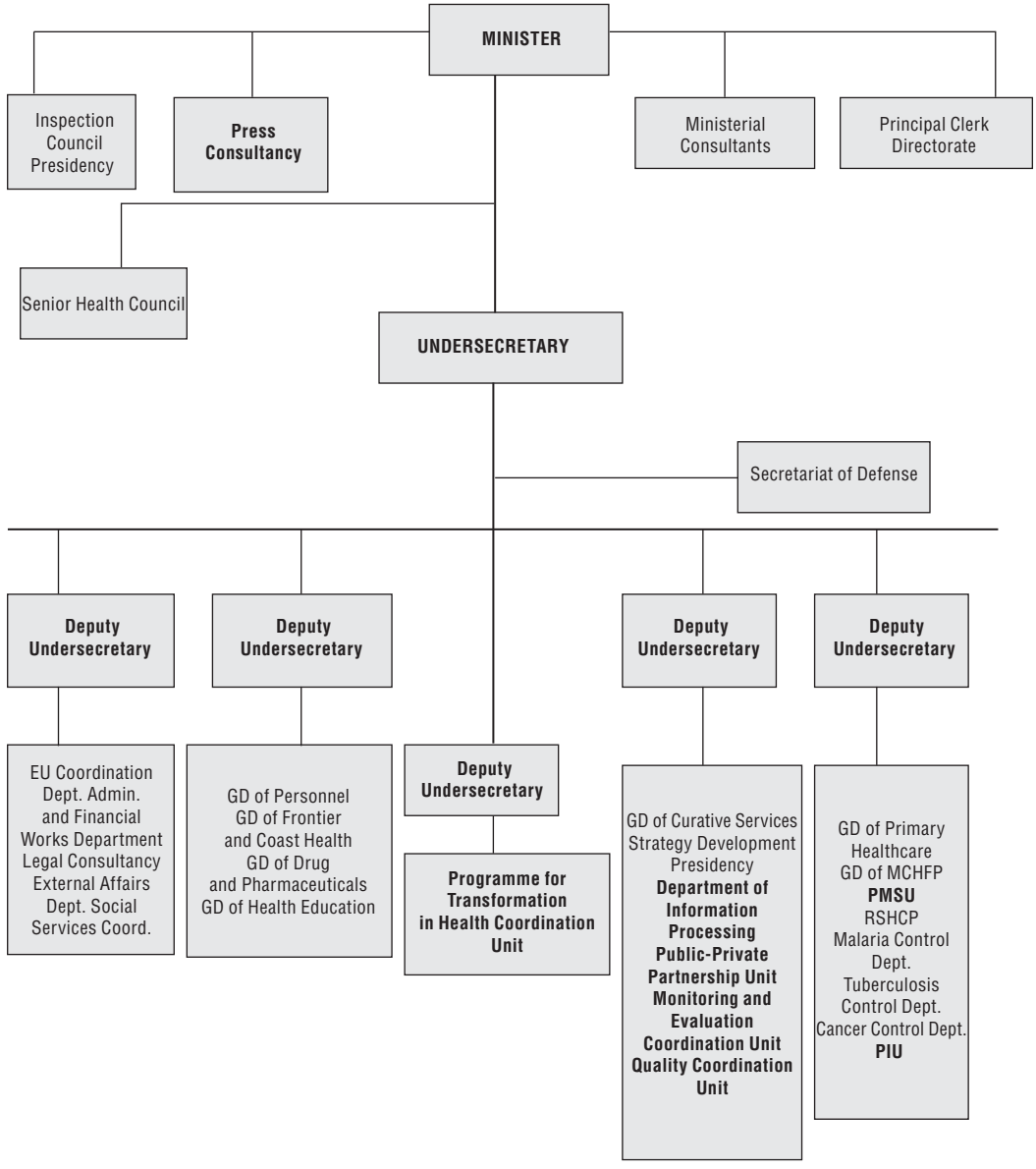
The framework law was vetoed by the then President of Turkey and as a result, MoH restructuring was delayed. The MoH has during Phase I implementation of the HTP, established several new departments (through ministerial decrees) responsible for functions such as monitoring and evaluation, performance management and quality improvement (see bolded sections in Figure 2.2). However, major restructuring of the MoH and establishment of quasi-public institutions responsible for regulation in the health sector as well as restructuring of the public health system remain unfinished tasks under Phase I of the HTP.

New governance arrangements for the system of Universal Health Insurance have emerged as a result of the establishment of the SSI. A Reimbursement Commission was established in 2004 consisting of representatives from the SSI, the Employment and Pension Fund, the MoH, the Ministry of Finance, the State Planning Organisation and the Treasury. This commission is responsible for setting prices for health services and pharmaceuticals reimbursed by the SSI, as well as for making changes to the SSI benefits package. A Medical and Economic Appraisal Commission operates under this commission and is responsible for the necessary technical work to facilitate decision making by the Reimbursement Commission. With the establishment of one Reimbursement Commission for all the health insurance funds, a mechanism has been put in place for addressing payment strategies that affect all the funds, replacing the previous fragmented system.

2.6. Important cross-cutting issues: human resources and health information systems

Early in the implementation of the HTP, it was recognised that information and appropriate human resources capacity would be critical for implementation of the HTP. Therefore, major efforts have been made to put in place the conditions for a motivated and well-performing workforce and for establishing information systems. In the past few years, the Ministry of Health Information System has expanded and substantially increased its collection of data. The Ministry of Health information system, known as Health-NET, contains a number of different information systems and datasets, such as the Family Medicine Information System, the Green Card Information System, the Doctor Data Bank, the Patient Rights Information System, the National Data Dictionary, and the Minimum Data Sets. The Minimum Data Sets focus on a number of health topics, including: follow-up of reproductive health-care services provided to women from 15-49 years with a special

Figure 2.2. **Ministry of Health central organisation**



Note: GD: General Directorate; MCHFP: Mother and Child Health and Family Planning; PIU: Project Implementation Unit; PMSU: Project Management Support Unit; RSHCP: Refik Saydam Hygiene Center Presidency, The School of Public Health.

focus on the provision of antenatal services; drug addiction; psycho-social follow-up; contagious diseases; causes of infections and malaria; HIV registration; newborn registration; non-national registration; test results; outpatient services; inpatient services; and organ transplantation, among others. Expenditure data are not currently collected but there are plans to integrate them with the SSI claims and utilisation management system (MEDULA). Health-NET has been piloted among select health-care institutions and is planned for roll-out in the near future. A telemedicine pilot was launched by the Department of Data Processing of the MoH and is currently covering 18 hospitals. The MoH health systems are harmonised with MEDULA to prevent duplication and minimise the administrative burden on MoH hospitals.

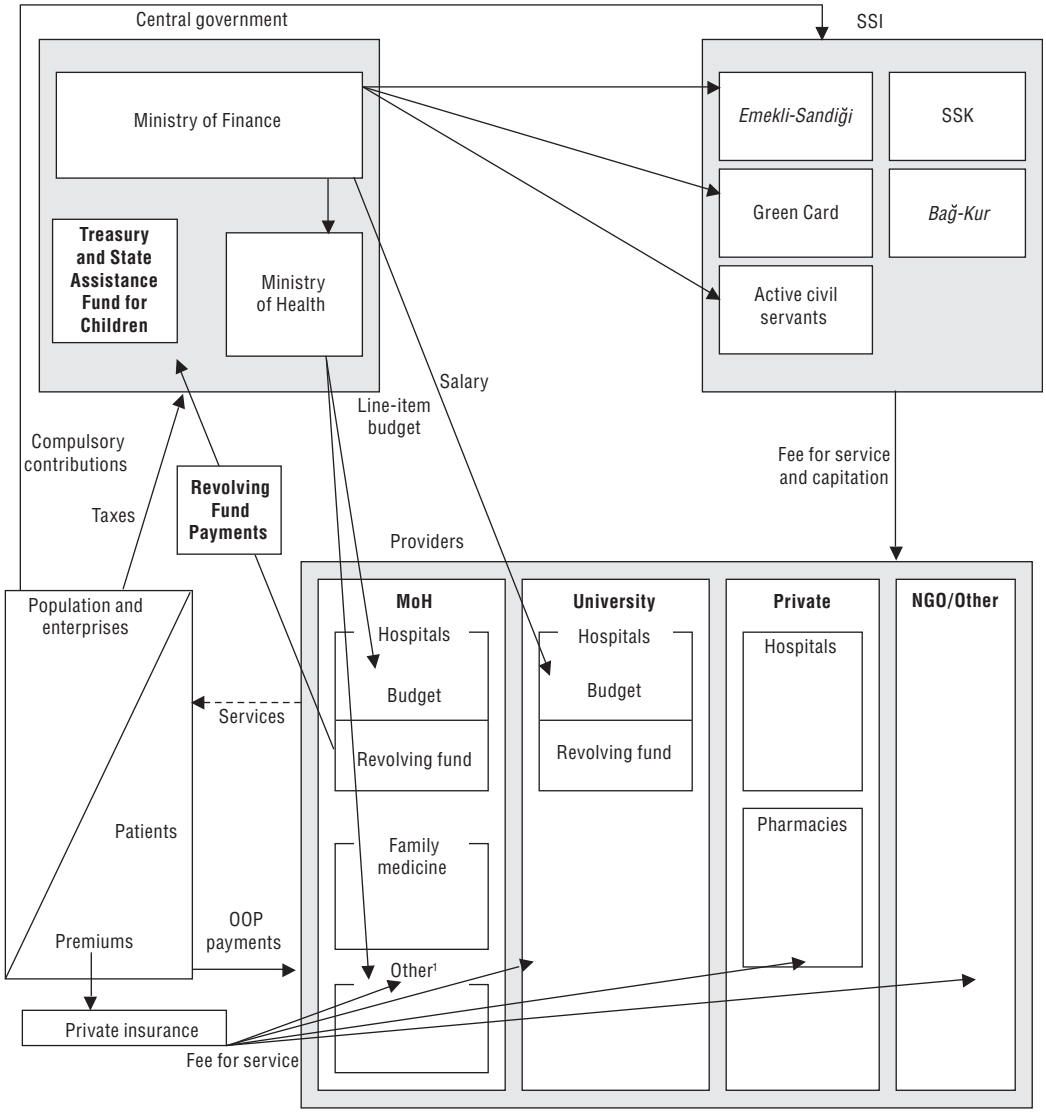
Systematic coding of diseases using ICD-10 codes has been implemented in all MoH hospitals, and the infrastructure for hospital management and family doctor information systems, respectively, has been established. The information system for family doctors is operational and every month family doctors report on a "minimum data set" which includes information on disease patterns and referrals. The information system is required for successful implementation of the pay-for-performance scheme for family doctors.

A key step in creating a motivated and well-performing workforce under the HTP, was the implementation of the performance-based supplementary payment system (described in Box 2.1). As mentioned in Chapter 1, although hospitals and health facilities were allowed to use revolving funds for bonus payments to health personnel prior to the HTP, the levels of payments were rather low, there was variation in payment levels across health facilities, there was limited transparency in how these payments were made and there were no performance criteria against which these payments were benchmarked. A major initiative under the HTP was the formulation of a framework for making these bonus payments linked to the performance of health personnel. The framework was applied to all MoH hospitals, thereby making the process standardised and transparent. The main objective was to encourage productivity among health personnel. This was consistent with human resources policy under the HTP which, recognising shortfalls in supply of health personnel in the public sector, aimed at increasing on-the-job productivity. In addition to boosting the payment systems, management training programmes for doctors and hospital managers were initiated using distance education methodologies, and MoH personnel in hospitals as well as in administrative positions were trained in subjects such as health-systems performance improvement, health reform implementation and other relevant topics. The number of health personnel working under the MoH was increased by 100 000 and the requirement for newly graduated doctors to serve in rural areas was enforced.

2.7. Public health

In recognition of the growing burden of chronic diseases, national programmes targeting diseases such as cardiac health, mental health and diabetes were implemented under the HTP. Free cancer screening services and accompanying training centres for practitioners were opened in 49 provinces. In January 2008, the MoH published its Action Plan for the Control of Cardiovascular Diseases. This plan focuses on the risks associated with non-communicable diseases and tackles tobacco consumption, passive smoking, obesity and lack of physical exercise. Efforts to control communicable diseases such as malaria, leishmaniasis, typhoid and tuberculosis were scaled-up. The practice of "Directly Observed Therapy" for tacking tuberculosis was introduced in 2003 and a cross-sectoral National Plan on combating avian influenza was developed. The number of "Baby Friendly Hospitals" was increased over fourfold (from 141 in 2002 to 619 in 2007), and the immunisation programme for children under five was expanded to include rubella, mumps and meningitis. Pregnant women have been provided with free iron supplements with the objective of addressing anaemia and protecting mother and child during delivery and in the antenatal period. To address possible Vitamin D deficiency, free Vitamin D supplements were disseminated to up to 4 million infants between May 2005 and August 2008. Efforts under the neonatal screening programme were accelerated and scaled-up nationally. Screening for phenylketonuria was also rolled out throughout the country.

Figure 2.3. **Main financial flows in Turkey's health system, 2008 (after adoption of the UHI Law)**



1. Lower level MoH institutions, such as health centres, dispensaries, village posts, or other primary health institutions do not have a budget or revolving funds that are individually managed; instead, the provincial health directorates manage the institution's finances and are in control of the unit's operations (Mollahaliloğlu *et al.*, 2006, pp. 146-147). A nearby hospital may also manage the revolving fund of some lower-level institutions.

Notes

1. The positive list of drugs for Green Card contains the same drugs as the combined list for the other health insurance schemes but will be kept separate until Green Card holders are formally integrated into UHI, which is planned for October 2008.
2. In March-April 2008, the high court of Turkey issued an injunction against the implementation of bundled pricing as provided for in the SUT. According to the High Court, bundled prices were unconstitutional and could compromise access to health services. The High Court also ruled that the analytical basis for the bundled pricing system was inadequate.

ISBN 978-92-64-05108-9
OECD Reviews of Health Systems
Turkey

Chapter 3

The Performance of the Turkish Health System and its Determinants

3.1. Introduction

In this chapter, an assessment is made of the performance of the Turkish health system and its determinants using an assessment framework agreed among OECD member countries. The "health system" is defined to include both medical care and the public health activities that are typically the responsibility of Ministries of Health. "Performance" is assessed against the major goals of health policy: *i)* maximising health outcomes and responsiveness to consumers: *ii)* minimising costs, subject to attainment of these outcomes; and *iii)* pursuing equity in terms both of financial protection against unpredictable catastrophic medical care costs, and access to health services (Hurst, 2002). Assessing the performance of the Turkish health system against these goals entails: *a)* making a judgement on an "appropriate" level of spending on health care through time in the context of socio-economic and political economy factors; *b)* providing financial protection from unpredictable high health expenditures, and equity in access to health services; and *c)* securing value for money, or microeconomic efficiency, at the individual consumer and provider level. These are explained further in what follows.

Turkey as a longstanding OECD member and upper middle-income country[1] approaching high-income status has historically benchmarked itself against other OECD countries. Given Turkey's economic and reform aspirations, this is certainly an appropriate perspective. However, given Turkey's significantly lower level of income and health spending, it is also appropriate to benchmark Turkey's performance against that of other comparable upper middle-income countries based on data for all countries in the world. Both approaches have been followed in this report. OECD comparisons are to be found in the main body of this chapter. Whole-world comparisons may be found in the annex at the end of the chapter – and references are made to them in this chapter, as appropriate.

Much of the analysis in this chapter, and indeed in Annex 3.A1, consists of comparisons between the average level of key health system indicators in Turkey and the average level of these indicators in a group of comparator countries. In the case of Annex 3.A1, much use is made of regression lines across countries to establish an expected level of a health system indicator given the level of one or more of its apparent determinants, such as health spending and/or income per capita. It is important to keep in mind that there is nothing right or wrong about averages or about regression lines fitted to international data. They simply reflect the average behaviour of variables of interest for comparable countries. There is nothing intrinsically good or bad about being above or below average. In addition, given the complex interactions in the health sector, it is important to consider several measures simultaneously. For example, being low on health spending may mean a country isn't spending enough (relative to its comparators' average) or it may mean the country is very efficient. Ideally, comparisons should look at what outcomes – health outcomes, financial protection, and consumer satisfaction – are achieved for similar levels of spending. The available data do not always allow that.

Nevertheless, large deviations by a specific country from an international average or regression line can raise questions about its health system performance and focus attention on some issues for further investigation.

This chapter starts by focusing on the health status of the Turkish population. Since this depends not only on the health system, but also on some important factors lying outside the health system, such as national income and the educational attainment of the population, the chapter examines some of these determinants as well. This helps to inform a discussion of the "appropriateness" of the level of health spending in Turkey in terms of its observed health outcomes. It also serves to highlight the scope for intersectoral action (action across many ministries) to improve the health of Turkish citizens. The chapter continues by looking at coverage and access at the micro-economic level and assesses system performance in terms of value for money. It ends with some key conclusions.

3.2. Performance assessment

Finding the appropriate level of spending on health through time

Achieving the major objectives of health systems, as listed above, includes reaching a judgement on the "appropriate" level of health spending given its opportunity costs in terms of other expenditures foregone. A subsidiary, but important, objective is to achieve fiscal sustainability of spending on health care through time.

The desirable level of spending will be determined by the value a society places on additional health services as compared with alternative uses of resources. The ultimate decision on the level of spending, and in particular on the level of public spending, is a matter for the judgement of governments and their electorates. However, such judgements can be informed by assembling global evidence, and international comparisons, on changes in health status, satisfaction with health care and the costs of health systems in countries, through time. That is done in the remainder of this section.

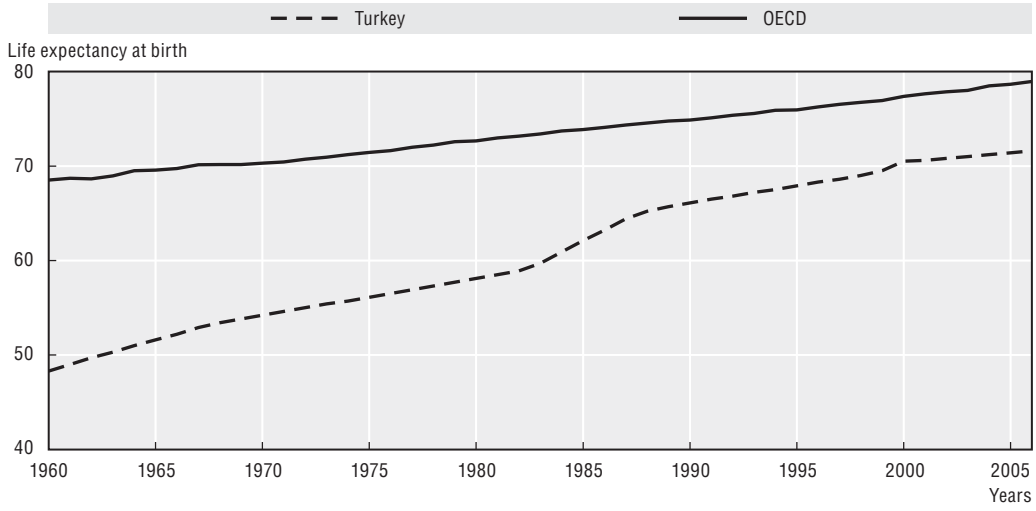
Past changes in health status in Turkey

Life expectancy at birth. According to *OECD Health Data*, life expectancy at birth has been rising strongly in Turkey over the past 45 years (Figure 3.1). Moreover, it has been converging toward the OECD average. Life expectancy at birth in Turkey stood at 71% of the OECD average in 1960. By contrast, it stood at 91% of the OECD average in 2006 having risen to 71.6 years (it rose to 71.8 years in 2007). Life expectancy in Turkey is about average for a country with its health spending levels but slightly below average for its income level, when it is compared to other upper-middle income countries, judging by 2006 global data (see Annex 3.A1, Figure 3.A1.3).

Infant mortality. The rate of infant mortality has fallen steeply in Turkey in the past 35 years and has converged both with the OECD average and with rates in countries like Mexico and Portugal (Figure 3.2). Nevertheless, infant mortality in Turkey, at 22.6 per 1 000 live births, remained the highest reported in the OECD area in 2006 and was more than four times the OECD average. It was also above that of other countries with comparable incomes and health spending levels (see Annex 3.A1, Figure 3.A1.1). However, infant mortality in Turkey has continued to fall and reached 21.7 per 1 000 in 2007.

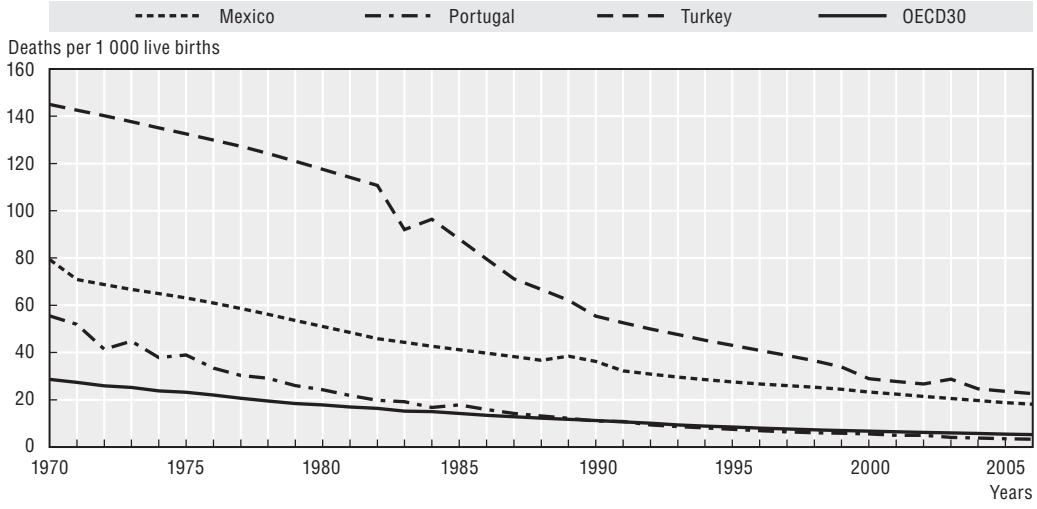
Maternal mortality. *OECD Health Data 2008* suggests that maternal mortality (deaths per 100 000 live births) fell steeply in Turkey between 1973 and 2007 (by about tenfold) and

Figure 3.1. **Life expectancy at birth in Turkey and OECD average, 1960-2006**



Source: OECD Health Data 2008.

Figure 3.2. **Infant mortality rates, Mexico, Portugal, Turkey and OECD, 1970-2006**

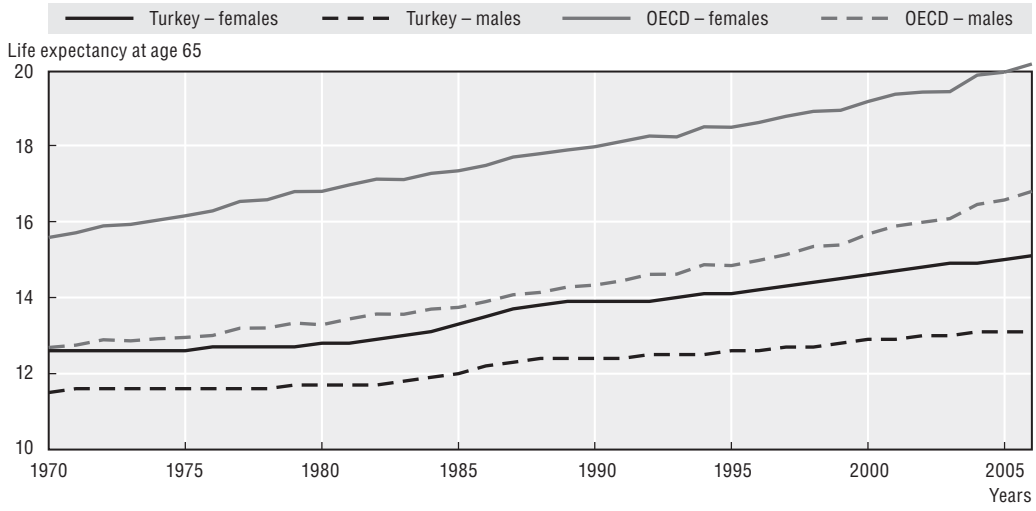


Source: OECD Health Data 2008.

converged towards the OECD average. In 1973, maternal mortality in Turkey was over eight times the OECD average. In 2006, it was about 2.5 times the OECD average. The world-wide comparisons in Annex 3.A1 (Figure 3.A1.2), using the most comparable international data, suggest that in 2005, maternal mortality in Turkey was slightly above the level that would be expected for a country with Turkey's income and level of health expenditure. However, given Turkey's significant progress in recent years an improved picture might emerge if 2007 global data were available.

Life expectancy at age 65. Life expectancy at age 65 has increased steadily in Turkey since 1970 (Figure 3.3). However, rates both for women and (more so) for men have *diverged* from the corresponding OECD averages. Life expectancy at 65 for women in Turkey was 81% of the OECD average in 1970 whereas it had fallen to 75% of the OECD average in 2006.

Figure 3.3. **Life expectancy at age 65 in Turkey and OECD average, 1970-2006**



Source: OECD Health Data 2008.

For men, the corresponding figures are 91% and 78%, respectively. At 15.1 years for women and at 13.1 years for men, Turkish life expectancy at age 65 was the lowest in the OECD area in 2006. Life expectancy at age 65 among women remained unchanged in 2007 in Turkey but it rose to 13.2 years among men.

Box 3.1. **Medical and non-medical determinants of health in Turkey**

Changes in Turkey's health status have been determined both by medical and non-medical factors. There is a large literature which shows that there are multiple determinants of the health of populations. For example, in a recent review of the determinants of mortality both across and within countries, Cutler *et al.* (2006) point to the strong correlation between income per capita and mortality rates in both time-series and cross-section data, especially across lower-income countries. In addition, they identify the following factors as determining improvements in mortality at different periods in different countries: better nutrition; more effective, non-medical, public health measures; rising educational attainment; and, in selected instances, better medical care. They play down direct causal mechanisms running from income to health, arguing, rather, that higher income is often associated with better nutrition, better education and higher spending on health care. They also point to the possibility of reverse causation – health can be an important determinant of income. Gottret and Schieber (2006) examined the literature and provide new evidence on the association of government health spending and other cross-sectoral factors on health outcomes. They find that increases in government health spending have a larger net impact in reducing under-5 mortality than comparable increases in government expenditures on education, roads, and sanitation. Jamison (2006) discusses the key factors affecting the evolution of health outcomes in both developed and developing countries.

There is growing evidence of a causal association between education and health. A recent review of the relationship between education and health, commissioned by the OECD's Education Directorate, suggests that health status of individuals in high-income countries is strongly and positively associated with the level of educational attainment – and that at least part of this association is causal (Feinstein *et al.*, 2006).

The determinants of health status across OECD countries

Recent OECD empirical work on the determinants of health has sought to explain gains in life expectancy at birth, gains in life expectancy at 65 and declines in infant mortality between 1991 and 2003 (Joumard *et al.*, 2008). The determinants examined include: real health-care spending, smoking, alcohol consumption, diet, pollution, education and GDP per capita. The analysis suggests that on average across OECD countries, changes in real health-care spending have been the most important determinant of changes in health status across countries in the period concerned. Changes in either GDP per capita or in levels of educational attainment were usually the second or third most important determinant.

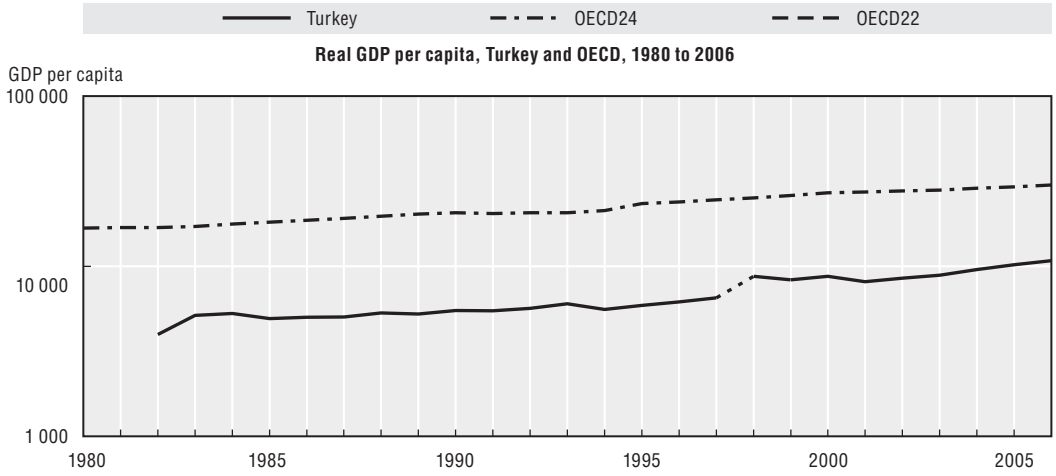
This analysis can be used to estimate why health status in any particular OECD country has diverged from the OECD average. In the case of Turkey, life expectancy at birth was 7.4 years below the OECD average in 2003. On the basis of the coefficients estimated in the OECD model, over half of this difference can be attributed to lower real health spending in Turkey, about a third to lower educational status in Turkey and about a quarter to lower GDP per capita in Turkey than in the OECD average. However, Turkey's low alcohol consumption *reduces* the difference by a fifth.

The growth of GDP per capita and of health-care spending in Turkey. Figure 3.4 shows how real GDP per capita (*i.e.* GDP per capita at constant prices), real total health spending per capita, and the health expenditure share of GDP have grown since the early 1980s, both in Turkey and, on average, in the OECD area. It can be seen that growth of real GDP per head in Turkey has behaved like the OECD average over time, albeit at lower levels of national income per capita.[2] In the case of real health expenditure per capita, it grew at an annual average rate of 8.5% per annum in Turkey compared with an OECD average rate of 4.8% per annum between 1985 and 2006. Consequently, the health expenditure share of GDP in Turkey rose from 2.2%, about one-third of the OECD average, in 1985, to 5.6%, approaching two-thirds of the OECD average, in 2006. However, the health expenditure share of GDP was the same in 2006 as in 2001.

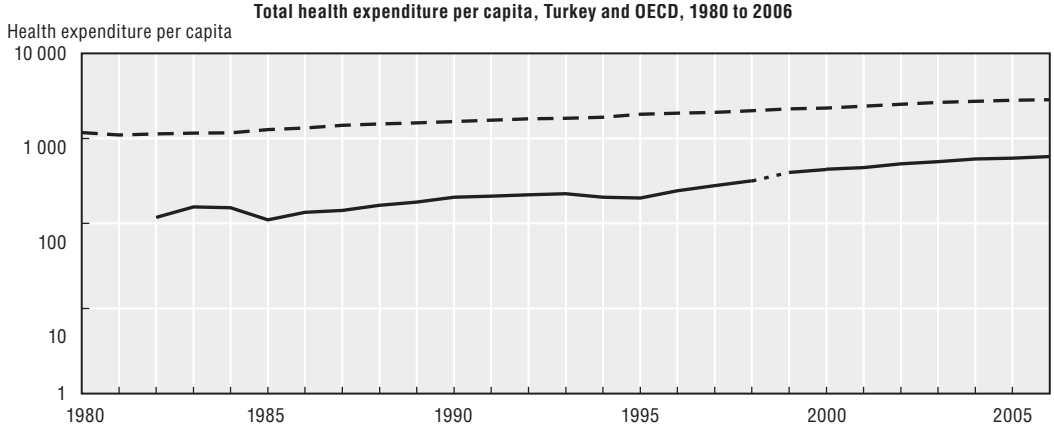
Figure 3.5 shows annual *changes* in health expenditure, in GDP per capita and in the health expenditure share of GDP in Turkey in the years for which continuous, consistent estimates are available (since 1999). Changes in public spending on health care are distinguished from changes in total spending on health care. Both GDP and health spending per capita grew significantly each year between 1999 and 2006, with the exception of 2000-01 in the case of GDP per capita, when there was a major recession in Turkey. Apart from that year, health expenditure grew roughly in line with GDP per capita

However, public spending on health care grew much more quickly than total spending on health care prior to 2003. By 2006, the public share of total health spending had reached 72%, just below the OECD average of 73%.[3] On the benefit side, if this was associated with improvements in public coverage of health care (such as improvements to the Green Card scheme), it may have had a very positive impact on health status among the poor. In that context, it is interesting to note that since 2003-04 – when the Health Transformation Programme was initiated – the rate of growth of public spending on health care has been similar to the rate of growth of total spending on health care and both have grown slightly more slowly than the rate of growth of GDP. There is, however, a question – which is discussed in Chapter 4 – of whether the high rates of GDP growth in the post-2001 recession period can be sustained in the future. If not, this may have serious consequences for future health spending increases.

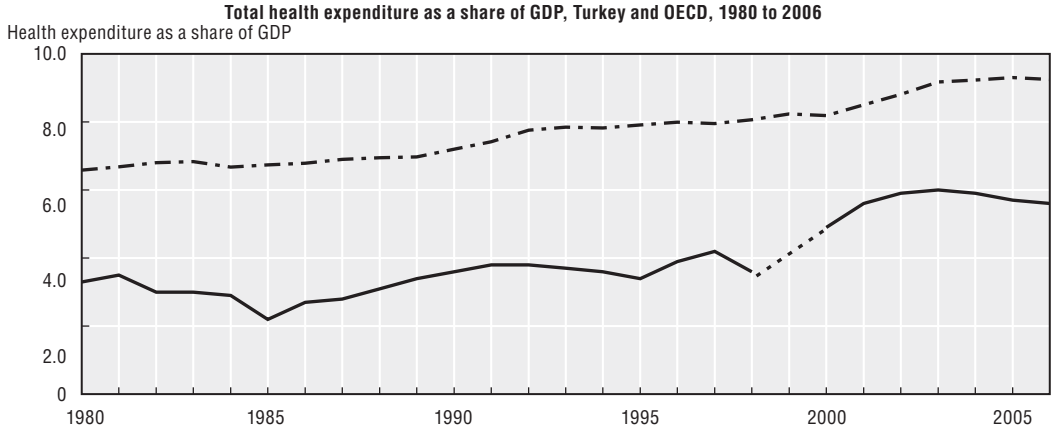
Figure 3.4. **GDP per capita, real health expenditure per capita and the health expenditure share of GDP, Turkey and OECD, 1980-2006**



Note: The OECD average is a consistent average among 24 OECD countries. Logarithmic scale on vertical axis.



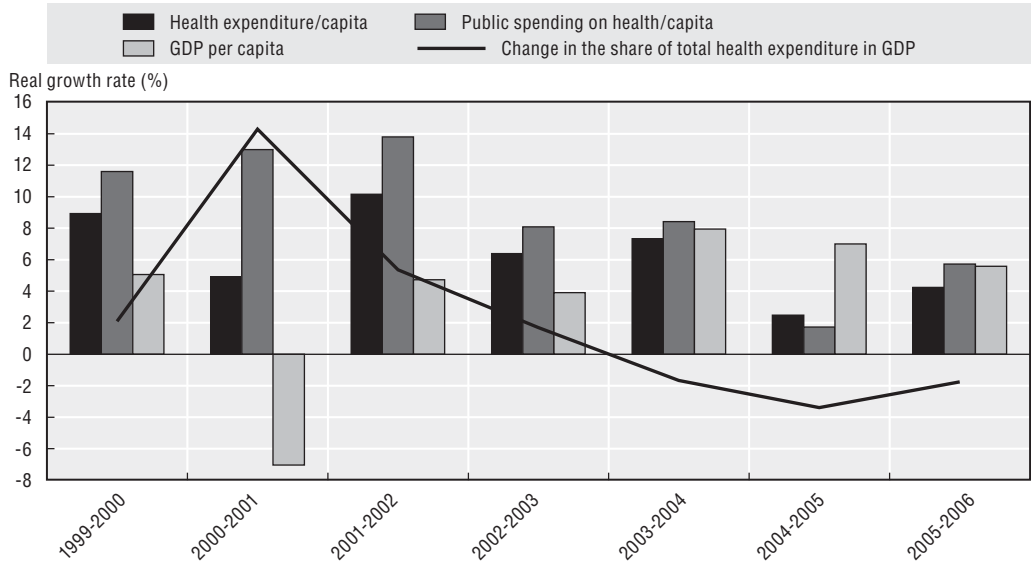
Note: The OECD average is a consistent average among 22 OECD countries. Logarithmic scale on vertical axis.



Note: For Turkey, there are breaks respectively in 1999 for health expenditure and in 1998 for GDP data.
The OECD average is a consistent average among 24 OECD countries.

Source: OECD Health Data 2008.

Figure 3.5. **Annual changes in total spending on health per capita, public spending on health per capita, GDP per capita and the health expenditure share of GDP, Turkey, 1999-2000 to 2005-06**

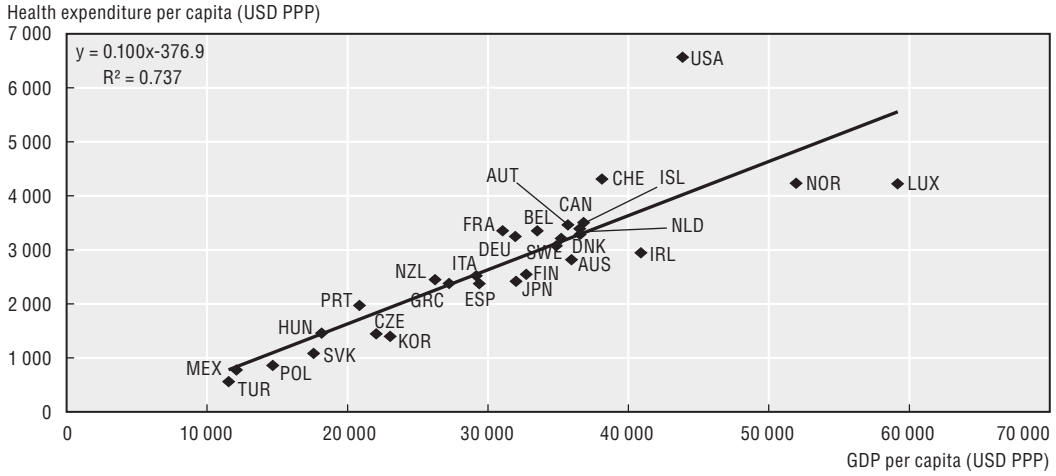


Source: OECD Health Data 2008.

Despite the prolonged period of high growth in GDP and in health expenditure per capita in Turkey, detailed above, Figure 3.6 suggests that Turkey still had both the lowest GDP per capita (at USD PPP 10 771) and the lowest health expenditure per capita (at USD PPP 609) in the OECD area in 2006. The health expenditure share of GDP – 5.6%, as mentioned above – was also the lowest in the OECD area. In addition, Figures 3.A1.11 and 3.A1.12 in Annex 3.A1 suggest that total health spending as a share of GDP and total health spending per capita were slightly below the levels found in other comparable upper middle income countries.

However, if attention is focussed on *public* spending on health care, whether measured as a share of total health spending, as a share of GDP, in per capita terms or as a share of overall government spending, Turkey spends as much or more than most other upper middle-income countries (Annex 3.A1, Figures 3.A1.13 and 3.A1.16.).

Figure 3.6. **GDP per capita and health expenditure per capita, OECD countries, 2006**

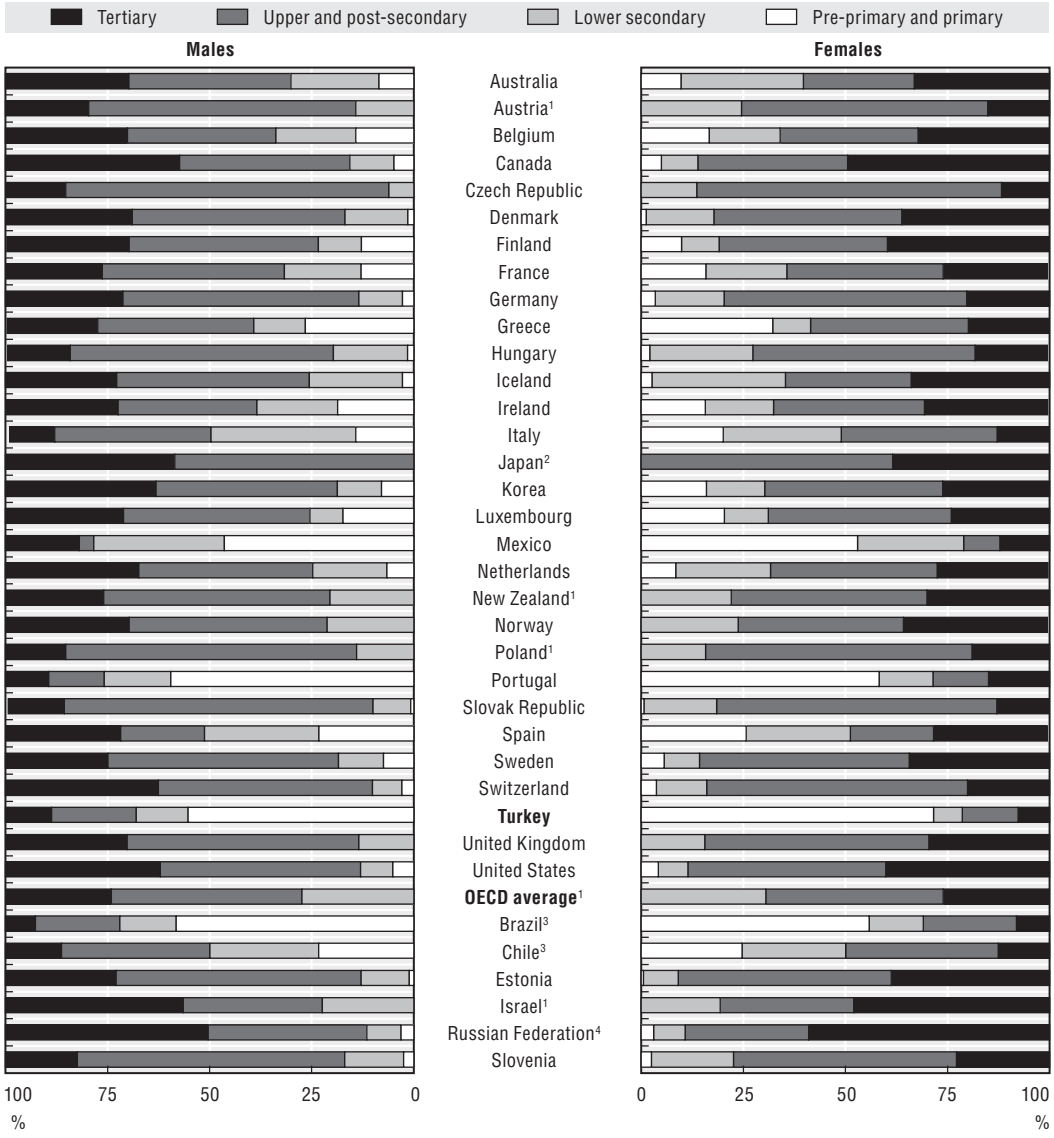


Source: OECD Health Data 2008.

Educational attainment. Educational attainment in Turkey, especially among women, appears to be lagging behind that in OECD countries and some other middle-income countries. In the case of adult literacy, Figures 3.A1.5 and 3.A1.6 in Annex 3.A1 suggest that while adult literacy overall is about average for a country of Turkey's income level, female adult literacy is slightly below the levels in other upper middle-income countries.

Using broader measures of educational attainment, Figure 3.7 suggests that in 2005, in the case of women, Turkey had a higher proportion of the population aged 25-64 educated only at primary level and a lower proportion educated at tertiary level than any other OECD

Figure 3.7. **Distribution of the 25- to 64-year-old population, by highest level of education attained, by gender, 2005**



1. The category "Pre-primary and primary education" is included within "Lower secondary education".
2. The categories "Pre-primary and primary education" and "Lower secondary education" are included within "Upper secondary education".
3. Year of reference 2004.
4. Year of reference 2003.

Source: OECD (2007b), *Education at a Glance*.

country. The same was true for men, with the exception of Portugal among OECD countries. Although the Turkish Government has increased investment in education sharply in recent years, and a majority of children now receive secondary as well as primary education, it will take many years for this effect to work its way fully through the population. Infant mortality may be affected quickly as more women enter childbearing ages with secondary education. However, older cohorts in Turkey will not be affected. Improvements in their health status may continue to lag behind improvements in the health status of equivalent cohorts in countries which expanded their formal secondary and tertiary education many decades ago. In addition, it is still the case that among Turkish children, girls still lag well behind boys in taking up secondary education (Turkish Citizenstat, 2008).

The mechanisms by which female literacy has a favourable effect on infant mortality are not fully understood. Clearly, women's knowledge about child diseases and child care (the "health literacy" of mothers) is likely to be a factor. However, it is also likely that mothers' command over material resources in the household is important. For example, higher levels of female education are likely to be associated with higher rates of female participation in the economy and higher household incomes.

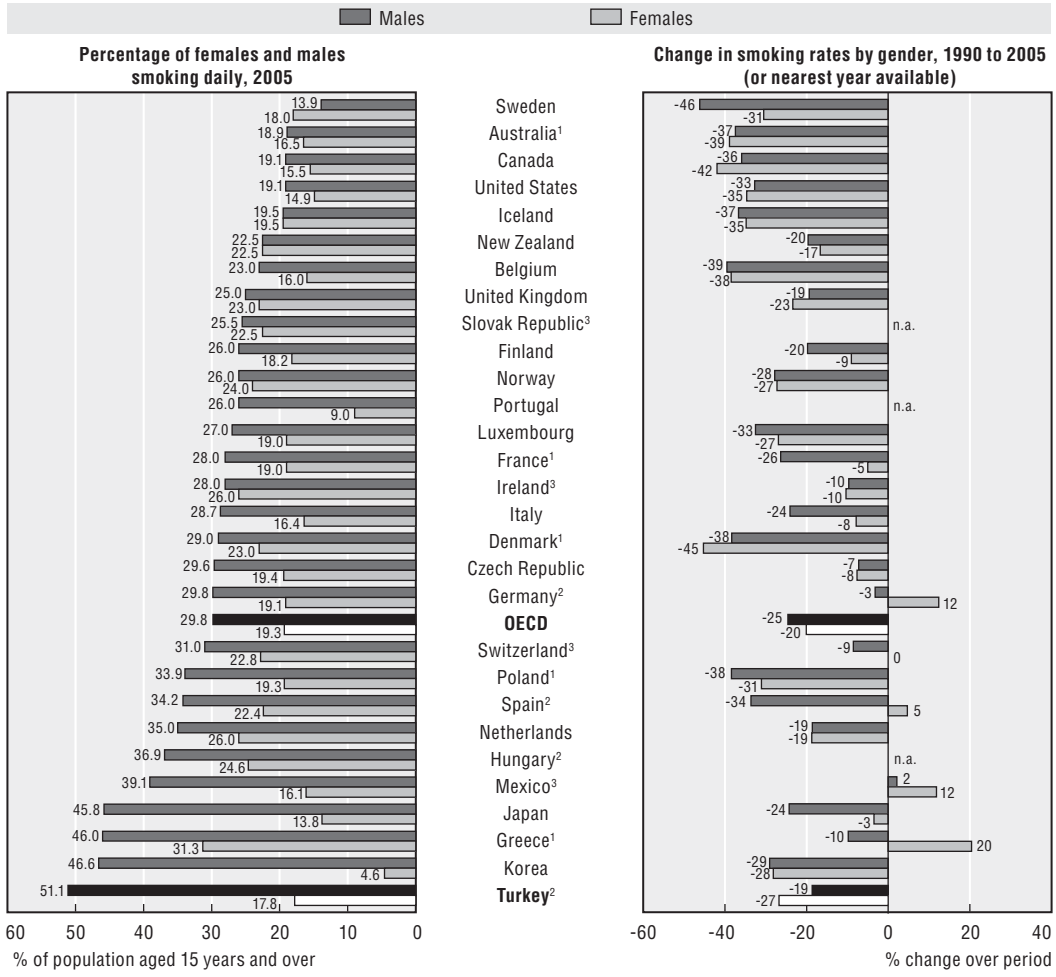
Smoking. Smoking is an important determinant of a number of diseases. Smoking rates have been declining in Turkey, as they have been doing in many other OECD countries in the past 15 years. That may well be an indication of the success of public health measures in the broadest sense. For example, a partial ban on smoking in public places in Turkey was introduced in 1997 and a full ban was implemented in May 2008.

Smoking rates in Turkey have declined more rapidly among women than among men, when compared with the corresponding OECD averages. Partly as a consequence, in 2005 Turkey still reported the highest smoking rate among men in OECD countries, at 51% (falling to 50.6% in 2006), whereas the rate among women, at 17.8% (falling to 16.5% in 2006), was below the OECD average (Figure 3.8). High smoking rates among men, and their relative persistence, may help to explain why the life expectancy of men at age 65 rose more slowly (by 14%) than the life expectancy of women at age 65 (by 20%) in Turkey between 1970 and 2006 (Figure 3.3, above).

Alcohol consumption. Alcohol consumption is also a risk factor for several diseases. Not surprisingly, given that most Turks are Islamic, Figure 3.9 suggests that alcohol consumption is much lower in Turkey than in any other OECD country. Indeed, consumption in Turkey, at 1.2 litres per capita in 2006, is less than 15% of the OECD average.[4] As has been mentioned above, it has been estimated by the OECD that Turkey's low alcohol consumption adds about 1.5 years to life expectancy at birth in comparison with the OECD average (Joumard *et al.*, 2008).

Nutrition and malnutrition. *OECD Health Data* suggest that *on average* nutrition in Turkey is satisfactory or good. Total calorie consumption per capita per day at 3 328 was close to the OECD average of 3 407 in 2003. Fruit and vegetable consumption – which has been positively linked to health status in many studies – at 338 kilos per capita per year was the second highest in the OECD area and was over 50% above the OECD average in the same year. However, there is reason for concern about the *differential consumption* of food supplies across the population.

Figure 3.8. **Percentage of females and males smoking daily, 2005 and change in smoking rates by gender, 1990-2006**



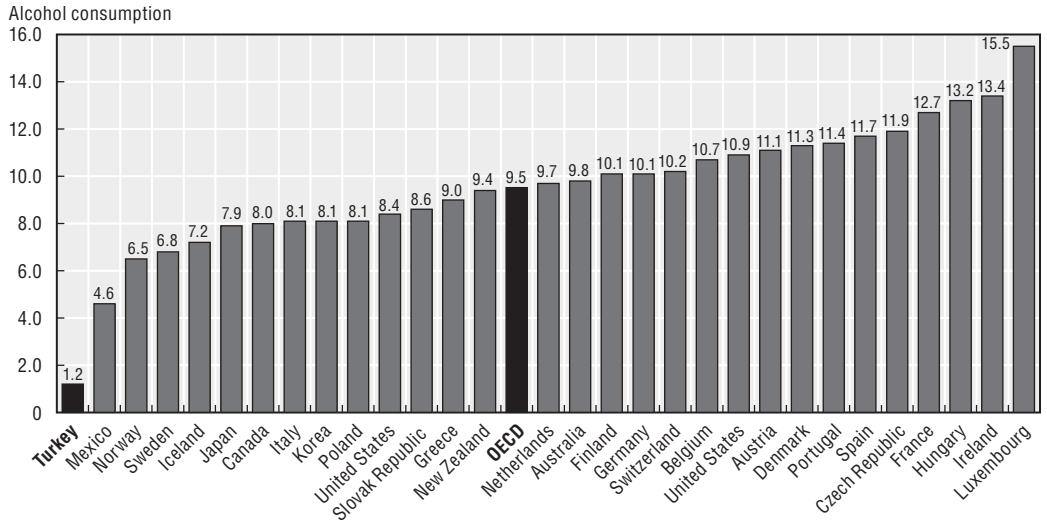
1. 2004. 2. 2003. 3. 2002.

Source: OECD Health Data 2007.

Malnutrition continues to be a problem for the poor in Turkey. Ergin *et al.* (2007) cite evidence from Turkey's Demographic and Health Survey, 2003, to the effect that stunting, as a result of chronic undernutrition, affects 12.2% of children in Turkey under 5 years of age. A study in Aydin Province, in western Turkey found the prevalence of stunting to be 10.9%. Significant factors which were associated with increased risk of stunting in Aydin were: father's educational level, father's unemployment, lack of social security, household size, low birth weight, early weaning, and failure to provide colostrum. Although risk of stunting was higher when mothers lacked secondary education or were not in employment, the differences were not statistically significant. The authors concluded that improved social security funding is essential and that mothers should be further informed about the importance of breast feeding and of providing infants with colostrum.

Low birth weight among children is a related problem. Turkey reports the highest incidence of low birth weight in the OECD area – 11.3% of newborns weigh less than 2 500 grams at birth compared with 6.6% of newborns on average across OECD countries in 2005 (OECD, 2007a).

Figure 3.9. **Alcohol consumption in litres per capita, population aged 15+, OECD countries, 2006 (or latest year)**



Source: OECD Health Data 2008.

Obesity and the metabolic syndrome. As in other countries which are passing through the "nutrition transition" – the transition from food scarcity to food abundance in a population – many Turkish citizens are now at risk of obesity and associated chronic diseases, such as the metabolic syndrome, which involves risk of cardiovascular disease and diabetes. *OECD Health Data* reports that obesity rates (the proportion of the population with a Body Mass Index – BMI – greater than 30) were 10% for males and 15% for females in Turkey – below the corresponding OECD averages in 2005 (or in the latest year available). However, these data from Turkey are based on self-reported height and weight which is known to provide lower estimates of BMI than height and weight measured in health examination surveys.

A few studies are available which measure obesity and the associated metabolic syndrome for small sample of Turkish citizens using more reliable, health examination methods. For example, Kozan *et al.* (2007) have reported obesity rates of 20.6% among adult men and 39.9% among adult women in a representative sample of about 4 300 Turkish citizens aged 20 and over. In the case of females, these levels exceed those reported by OECD countries such as the United Kingdom and the United States which report comparatively high national levels of obesity on the basis of health examination surveys. More worryingly, Kozan *et al.* found that 28% of men and 39.6% of women were suffering from the metabolic syndrome in Turkey. Similar levels of the metabolic syndrome were found in another sample of Turkish citizens by Ozsahin *et al.* (2004). Kozan *et al.* concluded that Turkish citizens have one of the highest prevalences of the metabolic syndrome in the World, higher than in Americans, Koreans, Chinese, Japanese, and Mongolians and comparable with those in Mexican Americans, Persians and south Asians. The high incidence and possible genetic disposition together supply a strong rationale for the development of preventive programmes.

Changes in responsiveness to patients and in satisfaction with health care

Responsiveness to patients is another important goal of the health system. Attempts to measure responsiveness have used three alternative instruments or combinations of them: *i*) indicators of patients' experience with various aspects of care, such as the

duration of waiting times for consultations, or whether the physician offered the patient alternative treatments; *ii)* indicators of subjective satisfaction with various aspects of care; and *iii)* indicators of subjective expectations about care. There is general agreement that measures of patient experience are easier to interpret than measures of subjective satisfaction or expectations, especially across different groups or populations. Unfortunately, few data seem to exist which compare patient experiences across or between Turkey and other countries using standardised instruments.

However, the Ministry of Health has drawn attention to the results of the life-satisfaction surveys published by Turkstat that suggest that overall satisfaction with health services among Turkish citizens rose from 39.5% in 2003, just before the beginning of the Health Transformation Programme, to 55.2% in 2005 and to 66.5% in 2007 (Akdağ, 2007a). Also, satisfaction with services provided in primary care increased from 39.4% in 2003 to 57.1% in 2006 and satisfaction with public hospital services increased from 41% in 2003 to 51.5% in 2007 (Akdağ, 2008). Some more detailed comparisons of satisfaction with health care are discussed in the section on microeconomic efficiency, below.

Providing financial protection from high health expenditures and equity in financing of and access to health services

Two important goals of health policy in OECD countries are: *i)* to provide financial protection, especially in poor households, from high or prolonged expenditure on health care; and *ii)* to provide members of the population with access to necessary health care on an equitable basis. Provision of adequate "health insurance", especially for disadvantaged and high-risk groups, is a necessary condition for meeting both of these objectives. Provision of adequate "health insurance" may be made conditional on the payment of compulsory premiums or voluntary contributions or it may be made unconditional in the form of free access to health services funded by public spending.

Turkey has been moving towards universal, contributory social health insurance for many years and has now achieved that goal in legislation passed in April 2008. *OECD Health Data* reports that Turkey had reached 68.2% population coverage by 2003 (67.2% public coverage + 1% private coverage). However, this estimate appears to relate more to numbers contributing to health insurance (and Green Card holders) rather than to those accessing services. All Turkish citizens have had free access to primary care provided in government health centres and to emergency health care in hospitals for some years. There has almost certainly been adverse selection into the formal schemes and the Green Card by those with significant health needs. Moreover, there may have been informal and fraudulent use of Green Cards and other modes of health insurance by non-members of the formal schemes. Some experts take the view that, as a result, *effective* coverage for health-care needs was already nearing 100% when the legislation for Universal Health Insurance was passed in April 2008. The increase in public spending on health care, relative to private spending, between 1999 and 2003 which was noted in Figure 3.5, above, may well have laid the foundation for such improvements.

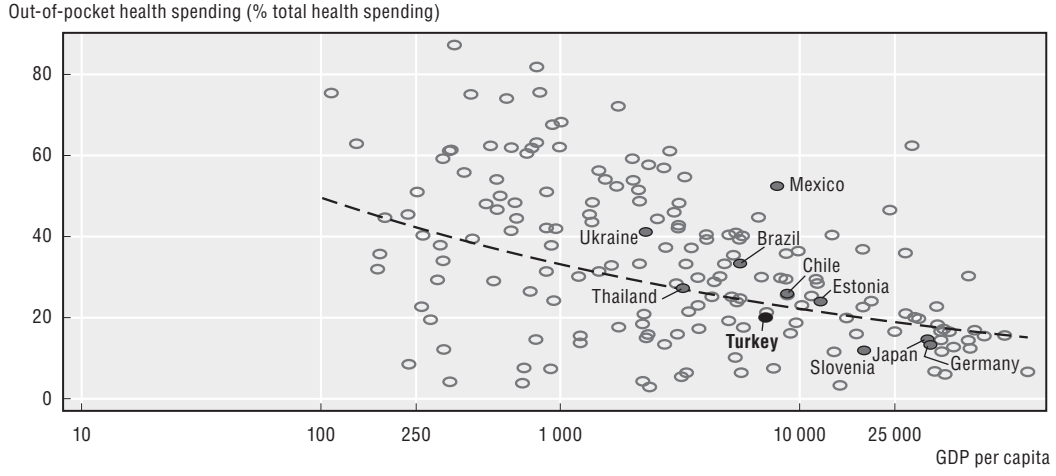
Financial protection

Financial protection can be measured in a number of ways, but the most common are: out-of-pocket (OOP) spending as a share of total health spending; OOP spending as a share of household consumption (sometimes non-food consumption) by income class; and the percentage of households driven into poverty by catastrophic medical expenses.

Unfortunately, from the perspective of international comparisons, standardised data are available only for the first measure. However, data specific to Turkey can be presented for the second measure by using Turkey's 2002-03 National Household Health Expenditure Survey and for the second and third measures by using Turkey's 2006 Household Budget Survey.

Figure 3.10 shows that Turkey's OOP spending as a share of total health expenditure was relatively low (19.3%) by 2006 – three years after the start of the HTP. This may indicate that more people in Turkey benefited from risk pooling/health insurance by 2006 and were, therefore, on average, better protected from catastrophic medical expenses, than in many other countries with comparable income levels at that time (Ke Xu *et al*., 2007).

Figure 3.10. **Out-of-pocket spending as a share of total health spending, Turkey and other countries in the world, 2006**



Note: GDP per capita in current USD; Log scale.

Source: World Development Indicators and WHO, accessed August 2008. Health expenditure data are preliminary as of August 2008.

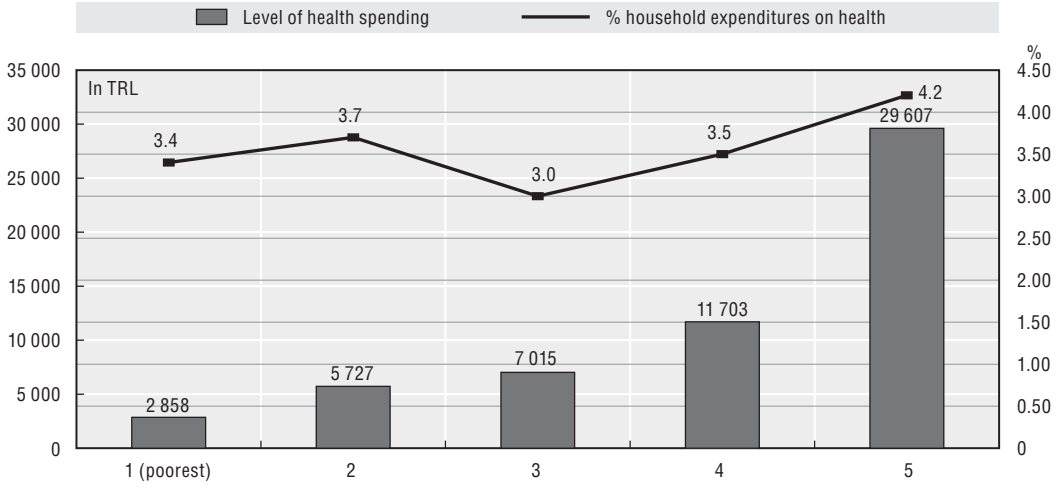
In order to determine the impact that out-of-pocket spending has in terms of forcing individuals into poverty, one must examine micro data sets. For Turkey two sets of information are available: the 2002/03 National Household Health Expenditure Survey and the Household Budget Surveys from 2003-06. Unfortunately, given the differences in questions and measures used in the different surveys, the results are not strictly comparable, and one cannot use the 2002/03 National Household Health Expenditure Survey data as the HTP baseline.

Sülkü and Bernard (2008) used Turkey's 2002/03 National Household Health Expenditure Survey, to examine to what extent the health insurance system in Turkey provided adequate protection against high out-of-pocket expenditures in the population aged under 65 years, prior to the HTP. They found that 19% of the non-elderly population (12.6 million individuals) were living in families spending more than 10% of family income on health care. In the case of the poor, 23% were living in families spending more than 10% of family income on health care and 19.4% were living in families spending more than 20% on health care. The incidence of such catastrophic health spending varied with the type of health insurance held by the household, because of differences in the benefit packages among the different public health insurance schemes.

Aran and Hentschel (forthcoming) found a rather different picture for 2006, using Turkey's Household Budget Survey. Only 5.3% of households were spending more than 10% of their household expenditure on health care in that year. This suggests that impoverishment levels due to catastrophic medical expenses are rather low. However, and unfortunately, it is not possible to deduce that catastrophic health spending has declined over the past years given that the National Household Health Expenditure Survey and the Household Budget surveys are not comparable.

Figure 3.11, below, draws on Turkey's Household Budget Survey for 2006. It shows out-of-pocket health spending (on the left-hand axis and in the bar graph) and OOP spending as a percentage of household non-food consumption (on the right-hand axis and in the line graph) by income quintile. It suggests that OOP is rather progressive – richer households allocate more of their household spending to health expenditure than poorer households – both in relative and absolute terms. The per cent of OOP health spending for the poor is low, relative to that in other countries for which data are available (Aran and Hentschel, forthcoming; and Hsiao, 2007).

Figure 3.11. **Out-of-pocket health spending and OOP health spending as a share of household expenditures for households with positive OOP expenditures**



Note: The richest quintile spends more on health, both in nominal terms and as a percentage of their total expenditures. Level of monthly per capita spending on health (conditional on having any health expenditures (in nominal Turkish liras), 2006.

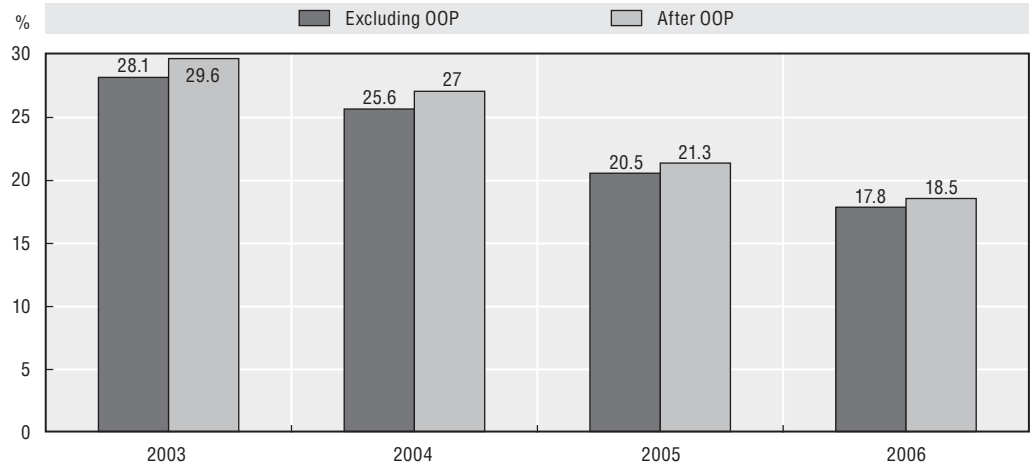
Source: Aran, M. and J. Hentschel (forthcoming), "Household Level Health Expenditures and Health Insurance Coverage of the Poor in Turkey", World Bank.

This picture is further reinforced by assessing the number of people driven into poverty as a result of OOP medical expenses. The dark grey bars in Figure 3.12 show the percentage of Turkish households assessed as being in poverty (by Turkstat) before allowing for OOP health spending, in 2003-06. The light grey bars show the percentage of households assessed as being in poverty (by Aran and Hentschel) after allowing for OOP health spending. As can be seen, the incidence of additional impoverishment due to high medical expenses in Turkey is low and has been declining. It has also been low relative to other countries where data are available (Aran and Hentschel, forthcoming; and Hsiao, 2007).

Figure 3.13 shows the impact of catastrophic health expenditure on general household spending levels. Total household expenditure is shown on the vertical axis and population

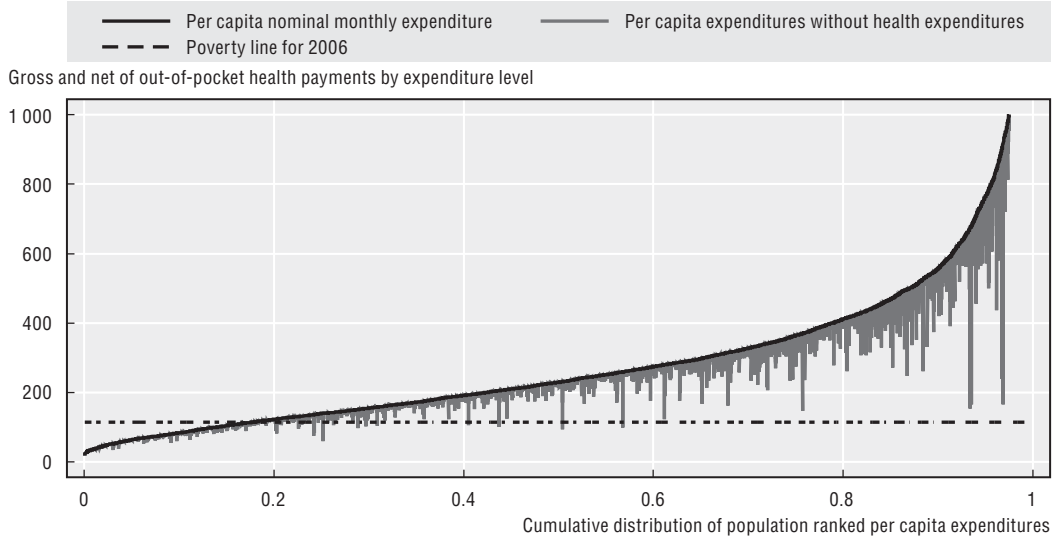
Figure 3.12. **Percentage of households in poverty and percentage driven into poverty by catastrophic medical expenses**

Change in poverty status of households as a result of out-of-pocket (OOP) household health spending



Note: Percentage based on households with positive health expenditures.
Source: Aran, M. and J. Hentschel (forthcoming), "Household Level Health Expenditures and Health Insurance Coverage of the Poor in Turkey", World Bank.

Figure 3.13. **Per capita household expenditures gross and net of health spending, by gross expenditure level**



Note: For all individuals, the rich spend 16 times more than the poor for health care. For only those who use health services, the rich spend ten times more than the poor. The average out-of-pocket payments for the poor are 1.3% of household spending, compared to 2.6% for the rich. See Aran and Hentschel, *ibid.*
Source: Aran, M. and J. Hentschel (forthcoming), "Household Level Health Expenditures and Health Insurance Coverage of the Poor in Turkey", World Bank.

quintiles are shown on the horizontal axis. The dotted, horizontal line shows the poverty level of household expenditure. The solid curve shows the cumulative distribution of the population ranked by per capita total household expenditure, before subtracting OOP health spending. The bottom-ends of the bars show per capita household expenditure after subtracting OOP health spending. If a bar crosses the poverty line, the household concerned has been forced into poverty by health spending. Once again, a picture emerges

of relatively low impoverishment effects, as well as a progressive burden on higher income households. The richest quintile spends some ten times as much as the poorest quintile and for those who incur medical expenses, the rich spend 16 times more than the poor. Overall, the poor spend 1.3% of their consumption on health, while the rich spend 2.6% for an overall average of 2.2%. OOP spending is progressive and falls disproportionately on the rich (Aran and Hentschel, forthcoming).

However, one important caveat is in order. While the system does appear to be progressive and very equitable, this spending pattern could also be interpreted as the rich spending large amounts privately due to the perceived poor quality of publicly-funded health care, while the poor simply go without needed services as they cannot afford to purchase private services. In the absence of utilisation data for the poor, it is not possible to reject this possible alternative explanation. This is an important area for further evaluation.

A second important caveat pertains to the significant differences, noted above, between the two surveys. It will be important for Turkey to continue to monitor carefully household spending on health and the impact of such spending on impoverishment, using valid, replicable and consistent measures across time. As discussed in Chapter 4, such monitoring is an important element of the continuing implementation of the HTP.

Nevertheless, based on the overall information available from the latest national health accounts and Household Budget Surveys, it appears that the Turkish health system performs quite well in terms of equity and financial protection, both in absolute terms and relative to other countries. The OOP share is relatively low and the incidence of OOP is progressive, falling disproportionately on the rich. The level of impoverishment due to catastrophic medical expenses is also low. The move to universal coverage should continue to improve financial protection as informal-sector workers and other non-contributory groups, who currently lack formal coverage, are enrolled in the system.

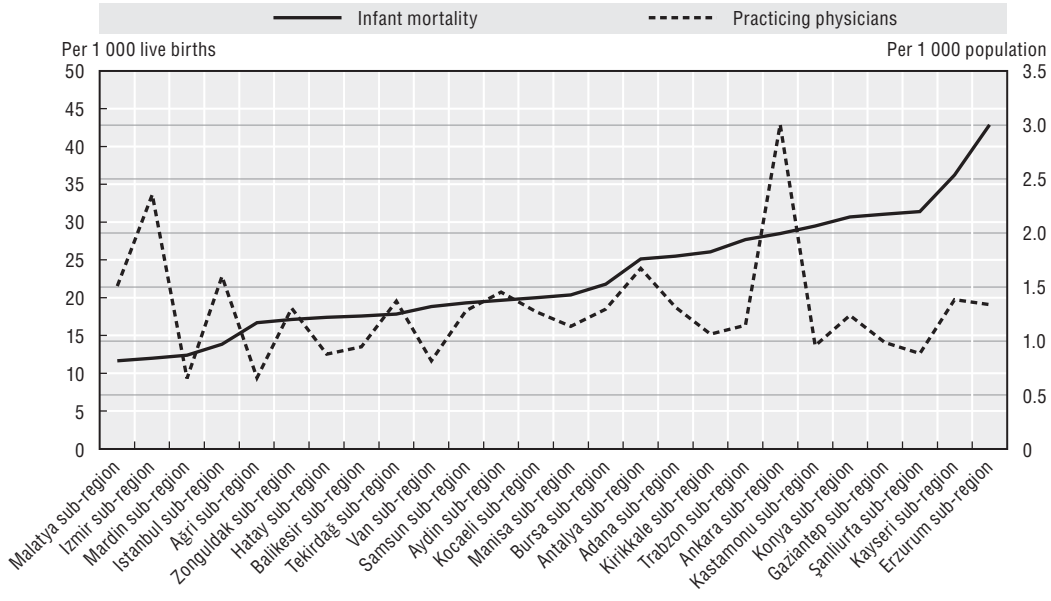
Equity in access to services

Achieving reasonable equity in access to necessary health care – or "equal treatment for equal need" – is regarded as an important goal in its own right in most, if not all, countries. In addition, it will almost certainly have significant implications for a nation's average health status. Without intervention, all countries are likely to experience the "inverse care law" – the tendency for access to health services to be inversely related to the need for health services – because low incomes are generally associated with poor health status. To achieve higher average health status, changing the distribution of health expenditures in a country, making it pro-poor rather than pro-rich (preferably by levelling-up rather than levelling-down), may be as potent as raising the overall level of health expenditure.

Clearly, Turkey reduced the problem of the inverse care law with the introduction of the Green Card in 1993. More recently, additional improvements to the Green Card and to the SSK schemes in 2005 and the introduction of Universal Health Insurance in 2008 have further improved the prospects for achieving equity in access. There was a large increase in the uptake of Green Cards in the poorest income decile from 24% of households in 2003 to 68% in 2006, presumably as a consequence of the HTP. These improvements are likely to have raised welfare significantly for the groups concerned.

Unfortunately, little if any information is available over time on utilisation of services across income groups in Turkey to monitor any changes that have happened. However, some information is available on equity of access to services across geographical areas in Turkey. Figure 3.14 ranks, from left to right, 26 Turkish regions in order of their infant

Figure 3.14. **Infant mortality and physician density in 26 regions, Turkey, 2007**



Source: Turkish Statistical Institute, Regional Statistics.

mortality rates in 2007, starting from the region with the lowest infant mortality on the left. The rate of infant mortality more than trebles from left to right. Since the rate of infant mortality is likely to be correlated with other indicators of poor health status, it might be taken as a proxy for the variation in need for health services across Turkish regions, although the gradient for other types of need may vary from that of infant mortality. Meanwhile, physician density (including all physicians both in the public and in the private sectors) is plotted for the same regions in 2007. On average, physician density *declines* as infant mortality *increases*. Taking the average values in the first four and the last four regions, physician density on the right declines to about 75% of its level on the left – although it is fairly flat across most of the remaining regions. That suggests that in 2007, Turkey was still suffering from the "inverse care law" in the geographical dimension.

The geographical distribution of physicians has become much more equitable under the HTP. The Ministry of Health has reported appointing significant numbers of new health staff in Turkey between 2003 and 2007. 16 000 of the new staff have been assigned to areas that were deprived in terms of staff per capita. This process has brought about significant improvements in the distribution of both physicians and nurses per *unweighted* head of population across Turkish regions, although significant differences remain (Akdağ, 2007a). The aim in the long term should be equity in staffing per head of population *weighted for need*, if "equal treatment for equal need" is to be the ultimate objective.

Inputs, staff remuneration, activity and securing value for money at the microeconomic level

A third major goal of health policy is to achieve value for money, or microeconomic efficiency, in consumption and provision of health care. That involves maximising outputs for a given cost, or alternatively, minimising cost for given outputs. As has been mentioned above, two of the real outputs of the health system are: the technical effectiveness of health care (improvements in health status brought about by preventive, curative or caring interventions); and, the responsiveness of service delivery to consumer expectations

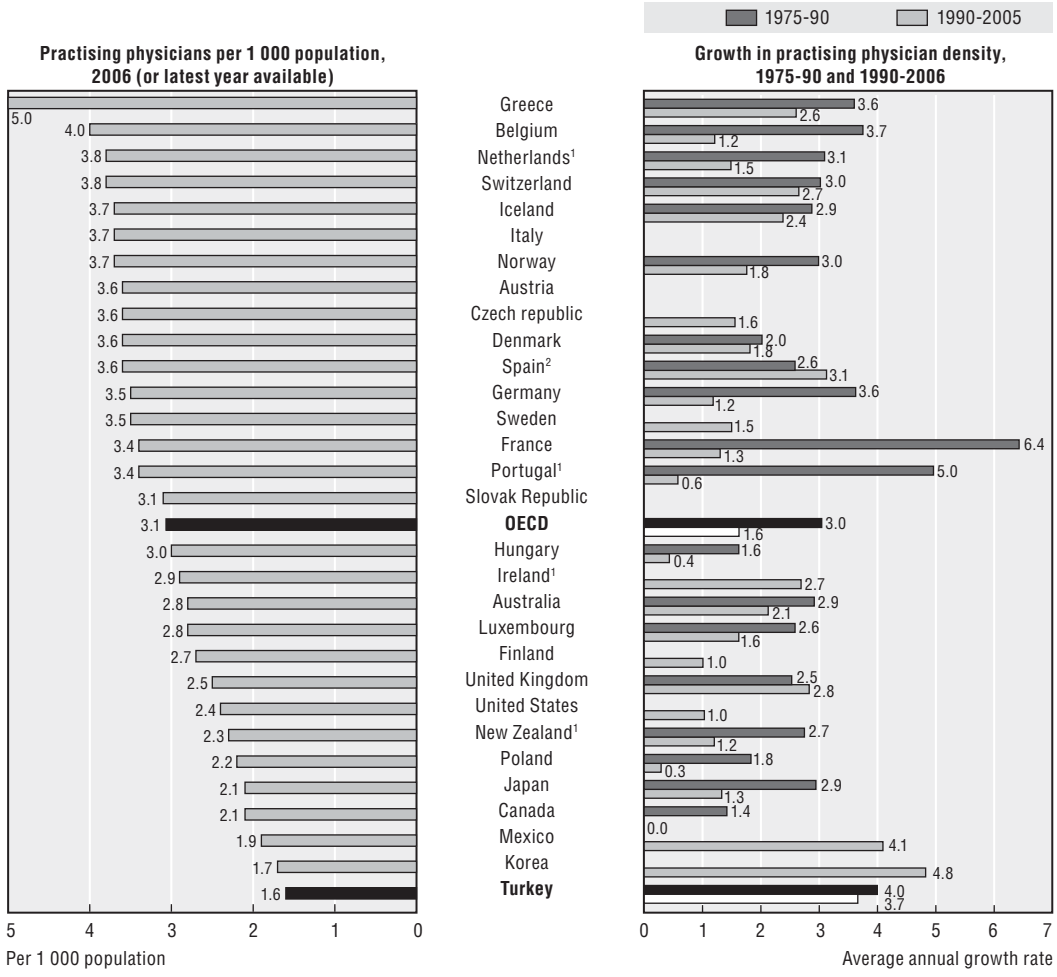
(achieving improvements in patient satisfaction brought about, for example, by providing services in a timely and caring way and in a pleasant environment). Both can contribute to improving the welfare of the population. Moreover, improving efficiency at the micro level can make an important contribution to *finding the appropriate level of overall health spending (or macro efficiency)* – by enabling, say, savings to be made in health expenditure without sacrificing outputs or by improving outputs for the same level of spending.

This section explores the microeconomic efficiency of the Turkish health system by examining some inputs to the system, some intermediate outputs, some "productivity" ratios (in the sense of ratios of intermediate outputs to inputs) and finally a few indicators of quality – both of the technical quality of care and of patient satisfaction – all in an international context.

Inputs and remuneration

Physicians and nurses. Figure 3.15 suggests that physician density, at 1.6 per 1 000 population, was lower in Turkey in 2006 than in any other OECD country. Physician

Figure 3.15. **Physicians per 1 000 population, Turkey and other OECD countries**



1. Ireland, the Netherlands, New Zealand and Portugal provide the number of all physicians entitled to practise rather than only those practising.
2. Data for Spain include dentists and stomatologists.

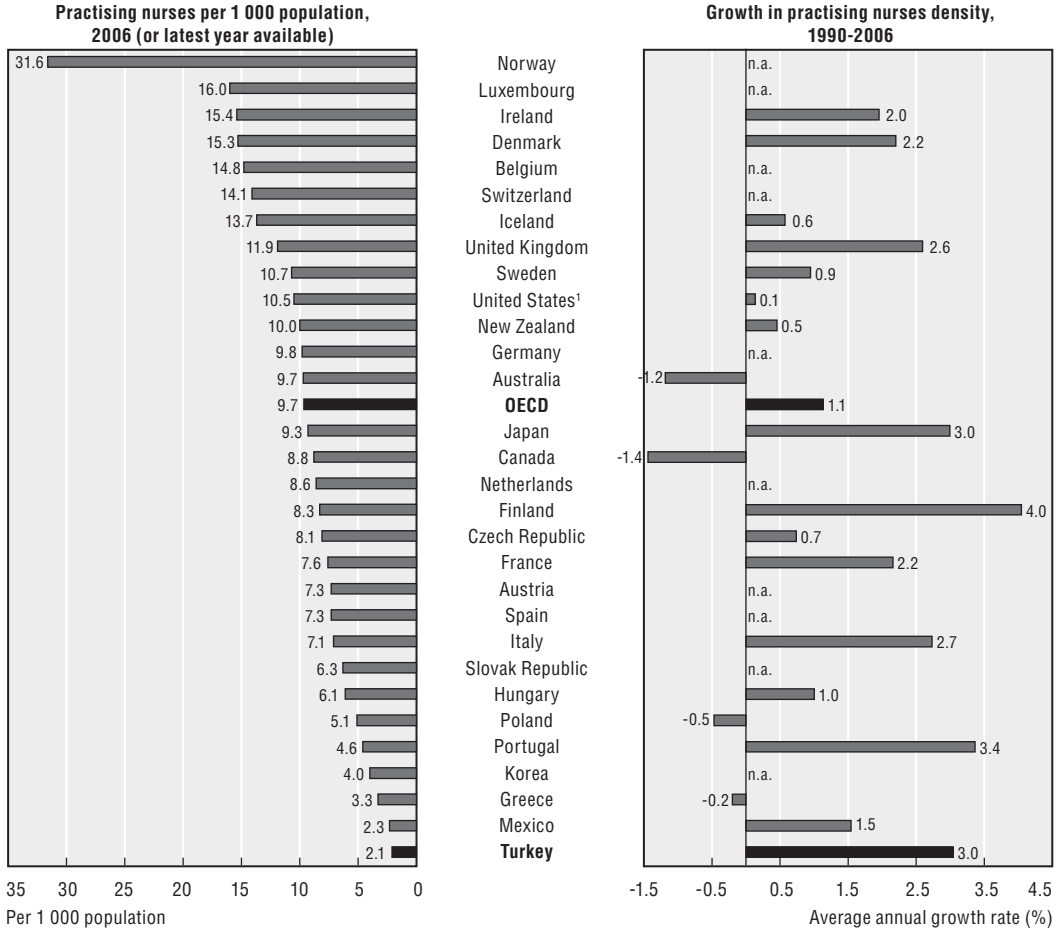
Source: OECD Health data 2008.

density in Turkey was at about half the OECD average in 2006. A little over 50% of physicians in Turkey are specialists, nearly 20% are in assistant positions, training to be specialists, and only about 30% are working as general practitioners. The world-wide comparisons in Figures 3.A1.9 and 3.A1.10 of Annex 3.A1, below, suggest that Turkey has about the same number of physicians as would be expected for a country with its standard of living but many fewer health workers in general.

Similarly, Figure 3.16 suggests that nurse density in Turkey was lower than in other OECD countries in 2006 – at only about one-fifth of the OECD average. In addition, Figure 3.17 indicates that Turkey reported one of the lowest nurse/physician ratios in the OECD area in 2006: 1.4 compared with an OECD average of 3.1.

However, although Turkey has not yet caught up with other OECD countries, both physician and nurse density have been growing more than twice as quickly in Turkey as the OECD average in the past 15 years (Figure 3.16). Nurse density has been growing less quickly than physician density and the ratio of nurses to physicians has fallen slightly in the past 15 years (Figure 3.17). It might make good clinical and economic sense if nurse numbers were growing more rapidly than doctor numbers in Turkey, judging by the higher nurse/physician skill mix found in other OECD countries and the fact that it costs less to train a nurse than a physician.

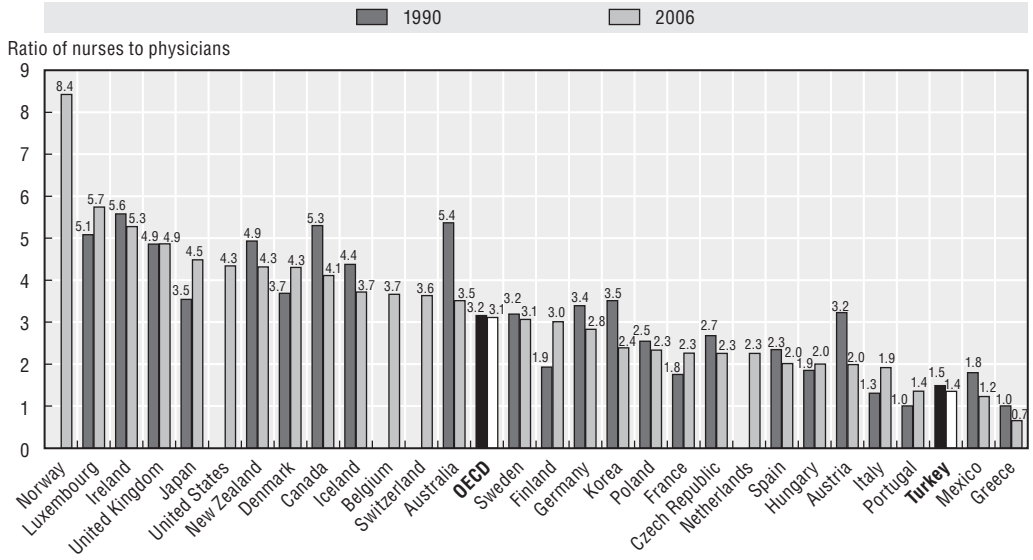
Figure 3.16. **Nurses per 1 000 population, Turkey and other OECD countries**



1. The average annual growth rate has been calculated for a different period, 1999-2006.

Source: OECD Health Data 2008.

Figure 3.17. **Ratio of nurses to physicians, Turkey and other OECD countries, 1990 to 2006**

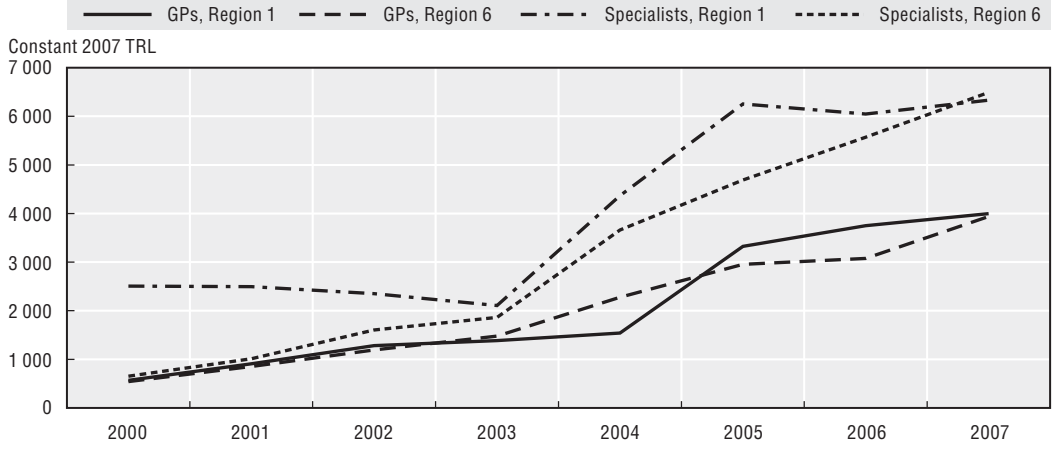


Note: Data refer to the ratio of the number of practising nurses to the number of practising doctors.
Source: OECD Health Data 2008.

Remuneration of physicians and nurses. The performance management system which was introduced in 2004 (see Box 2.1 in Chapter 2) brought about a pronounced increase in remuneration at constant prices, both for specialists and for GPs (see Figure 3.18). Figure 3.19 suggests that in the case of GPs, those working in hospitals are paid significantly more than those working in health centres. Figure 3.12 also suggests that remuneration for family practitioners has been established at a level just above that of GPs in hospitals – an appropriate incentive given the need to attract GPs of all kinds to switch to family practice. However, from the point of view of new medical students, there will still be incentives to specialise rather than to go into family practice – monthly remuneration of specialists remained about 40% above that of family practitioners in 2007.

Figure 3.18. **Total monthly remuneration for GPs and specialists in constant prices, two Turkish regions, 2000-07**

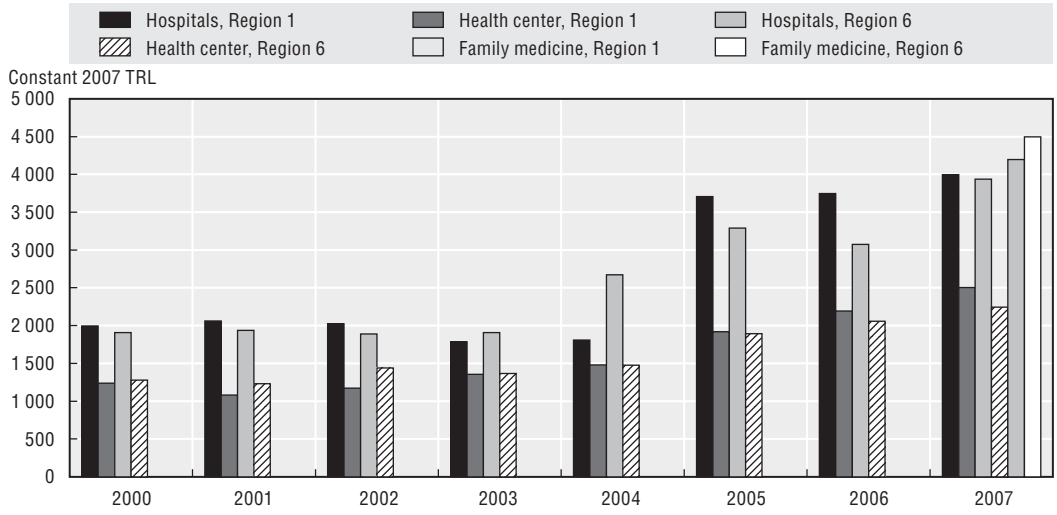
Total remuneration (monthly, salary + bonuses) for GPs and specialists



Source: Turkish Ministry of Health.

Figure 3.19. **Total remuneration of GPs, Turkey, 2007**

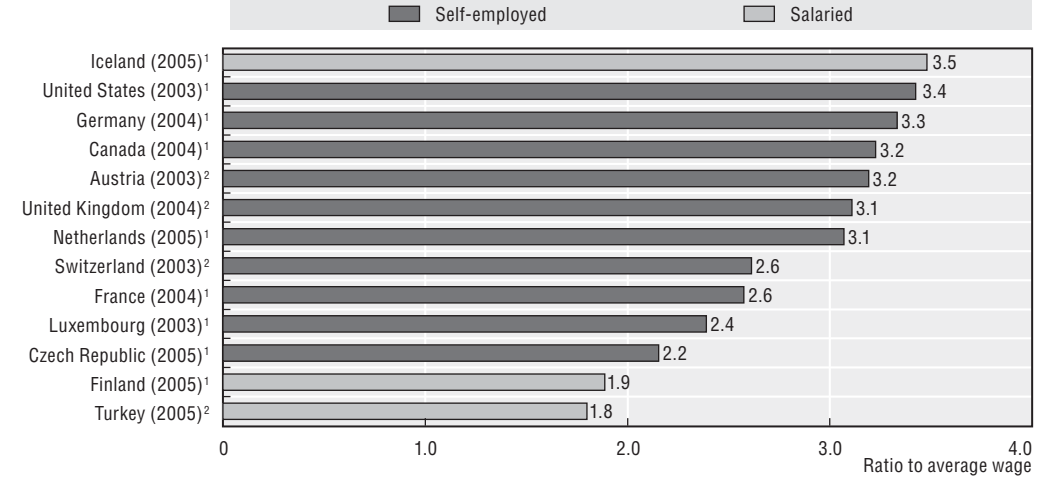
Total remuneration (monthly, salary + bonuses) for GPs



Source: Turkish Ministry of Health.

Turning to OECD comparisons, Figure 3.20 suggests that remuneration of salaried GPs in government health centres in Turkey in 2005 (prior to the introduction of a family practitioner service) was about 1.8 in relation to the average wage. This was similar to salaried GPs in Finland but low compared with self-employed GPs in other OECD countries. The introduction of a family practitioner service in Turkey is raising remuneration for GPs, and it is likely that Turkey will move up the distribution of relative remuneration across countries in future years.

Figure 3.20. **Remuneration of GPs relative to average wage, Turkey and selected OECD countries, 2005 or latest available year**



1. Refers to the remuneration of full-time GPs.
2. Indicates that the data include part-time GPs.

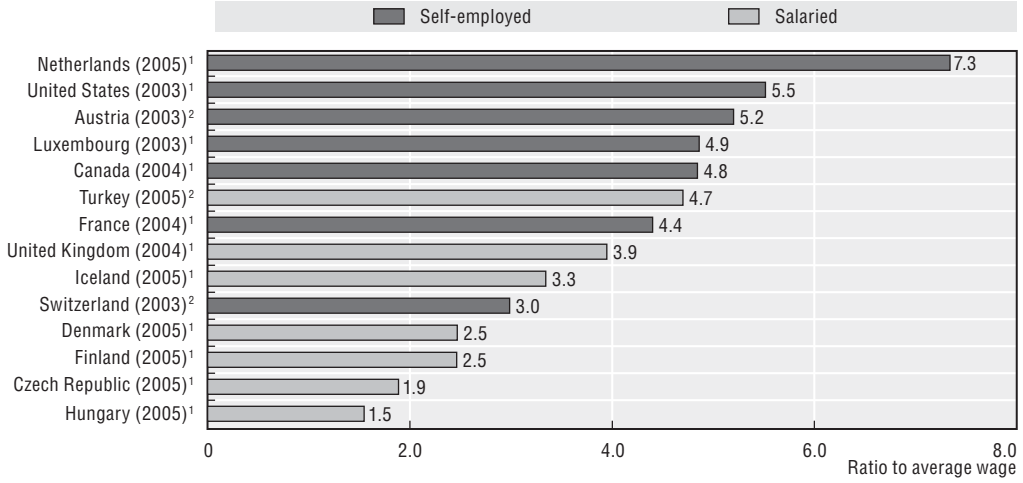
Note: Average wage data are OECD estimates based on OECD National Accounts database and *OECD Economic Outlook*, No. 80, December 2007.

For Iceland and Turkey, the average wage data come from the OECD publication *Taxing Wages* and only include the average wage of full-time employees working in selected industry sectors.

Source: OECD Health Data 2008; for Turkey, remuneration data provided by School of Public Health; and for the United States, Community Tracking Study Physician Survey, 2004-05.

Figure 3.21 suggests that the remuneration of salaried specialists in hospitals in Turkey in 2005 was 4.7 times the average wage. Turkey occupies the highest position in the international distribution for *salaried* specialists although it occupies a middling position in relation to *all* specialists (both salaried and self-employed). It is likely that these figures reflect the receipt of the significant bonuses which specialists could earn following the introduction of the performance management system in government hospitals from 2004. Turkey's relative position in the distribution is not surprising if account is taken of the inverse relationship that has been observed across OECD countries between relative remuneration and density of specialists (OECD, 2007a, Figure 4.4.2). Turkey has the lowest density of specialists among the countries represented in Figure 3.21.

Figure 3.21. **Remuneration of specialists relative to average wage, Turkey and selected OECD countries, 2005 or latest available year**



1. Refers to the remuneration of full-time specialists.
2. Indicates that the data include part-time specialists.

Note: Average wage data are OECD estimates based on OECD National Accounts database and *OECD Economic Outlook*, No. 80, December 2007.

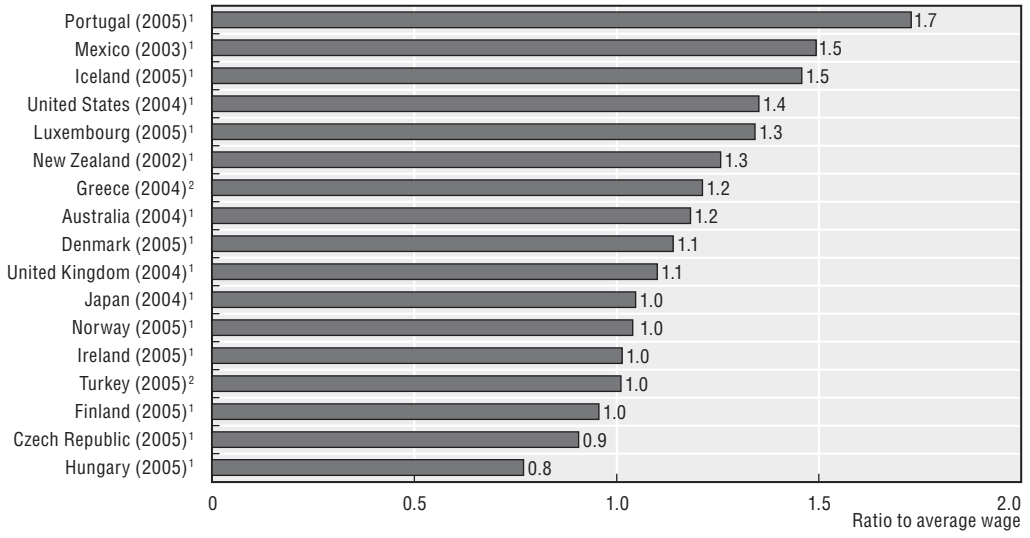
For Iceland and Turkey, the average wage data come from the OECD publication *Taxing Wages* and only include the average wage of full-time employees working in selected industry sectors.

Source: OECD Health Data 2008; for Turkey, remuneration data provided by School of Public Health; and for the United States, Community Tracking Study Physician Survey, 2004-05.

Figure 3.22 suggests that the relative remuneration of salaried hospital nurses in Turkey in 2005 was equal to the average wage. Several other OECD countries share a similar level of relative remuneration for nurses.

Training of physicians and nurses. Turkey reported a physician graduation rate of 42.7 graduates per 1 000 physicians in 2005, well above the OECD average of 34.6. The number of annual medical graduates has risen tenfold since the 1960s and has remained on a plateau since 1998 (Mollahaliloğlu *et al.*, 2007a). A graduation rate of 42.7 permits continuing growth in the physician workforce since it would require a graduation rate of only about 33 per 1 000 physicians to maintain the stock of physicians.[5] Rather disturbingly, in view of the aim of strengthening primary care in Turkey, there has been a recent increase in the tendency of medical graduates to take up assistant positions to train as specialists (Mollahaliloğlu *et al.*, 2007b). That may well be a response to the relatively high remuneration for specialists in Turkey, noted above.

Figure 3.22. **Remuneration of nurses relative to average wage, Turkey and selected OECD countries, 2005 or latest available year**



1. Refers to the remuneration of full-time nurses.
2. Means that it is not known if the data include part-time nurses or not.

Note: Average wage data are OECD estimates based on OECD National Accounts database and *OECD Economic Outlook*, No. 80, December 2007.

For Iceland, Mexico, New Zealand and Turkey, the average wage data come from the OECD publication *Taxing Wages* and only include the average wage of full-time employees working in selected industry sectors.

Source: OECD Health Data 2008; for Turkey, remuneration data provided by School of Public Health; and for the United States, Community Tracking Study Physician Survey, 2004-05.

Because shortages of physicians have appeared in some parts of the Turkish health system, recently, the government has announced that the annual intake of medical students will be raised from about 4 500 per annum to about 6 000 per annum. This, in turn, could raise the graduation rate to about 64 per 1 000. This will be higher than any rate reported so far to the OECD. It should be noted that it will be at least six years before any of the new physicians graduate – or longer if specialist training is required.

Turkey reported a nurse graduation rate of 30.7 per 1 000 nurses in 2005. That is not only well below the OECD average of 45.7 but may allow little if any continuing growth in the nurse workforce and will not allow Turkey to raise its nurse to physician ratio, one of the lowest in the OECD. Nurses tend to have a shorter working life than physicians. If their average working life is 25 years, it would require a graduation rate of 40 per 1 000 to maintain a steady workforce, assuming no immigration or emigration.

There has been some criticism of the quality of physician and nurse training in Turkey. Writing about the situation in the late 1990s, Savas *et al*. (2002) remarked on the fact that every medical school graduate was qualified to practice as a general practitioner without further training. Under the new family medicine scheme, however, it is planned to provide further in-service training in three stages for 22 000 – 24 000 general physicians who are currently employed. However, so far only 5 000 doctors and nurses have received the one-week training representing the first stage of the conversion process (Mollahaliloğlu *et al.*, 2007b). More generally, Savas *et al*. have suggested that there are weaknesses in the curricula and in practical training opportunities for health professionals. They have suggested that health personnel trainers are in short supply, although Mollahaliloğlu *et al*. (2007a) have

pointed out, subsequently, that in medical training, the lecturer/student ratio is higher in Turkey than in several European countries.

Acute-care beds. Turkey reported the fifth lowest ratio of acute-care hospital beds to population in the OECD area in 2006. At 2.5 beds per 1 000 population, it was at about two-thirds of the OECD average. However, the Turkish figure rose to 2.85 per 1 000 in 2007. The world-wide comparisons in Annex 3.A1, Figure 3.A1.8 tells a similar story. Turkey has fewer acute care beds per 1000 population than other countries with a similar standard of living. However, beds per 1 000 population have risen at an average rate of 1.4% per annum in Turkey since 1990, although they have been falling, on average, in other OECD countries.

Activity

Consultations with doctors. Despite the low density of doctors in Turkey, the rate of consultations[6] with doctors, at 4.6 per capita, was at about 70% of the OECD average, at 6.5 per capita in 2006. The 2007 rate of consultations per capita in Turkey had risen to 5.4 – over 80% of the OECD average in the previous year. A higher than average rate of consultations per physician (see below) makes up, to some extent, for the low density of physicians in Turkey. Turkey reported the fastest rate of growth of consultations with doctors per capita among the OECD countries for which data are available, at 7.3% per annum, compared with an OECD average of only 0.6% per annum between 1990 and 2006.

However, as mentioned earlier, there is a problem with the primary/secondary care mix of consultations in Turkey. Only about 40% of consultations have been with general practitioners in health centres in Turkey. About 60% of consultations have taken place in hospital outpatient departments to which many patients refer themselves directly, without going through a primary care "gatekeeper". This behaviour appears to have arisen historically because the quality of care in government health centres was perceived as relatively poor (see, also, section on quality of care, below). However, Turkstat's Life Satisfaction Surveys suggest that since the launch of the HTP, satisfaction with care in health centres has been rising faster than satisfaction with care in hospitals. OECD does not collect statistics on consultation mix in other OECD countries but rough calculations suggest that the primary/secondary mix for ambulatory consultations with physicians is about 65:35 in Finland and about 73:27 in England – both countries where general practice outside hospitals is generally well-regarded.

Unfortunately, an evaluation of the new family practitioner service was not yet available at the time that this report was completed. However, the OECD/World Bank team was able to visit one of the Provinces which have piloted family practice, Eskişehir, in April 2008. Here, the establishment of family practice, with a mandatory referral system, for the whole population in July 2006, led, initially, to a steep rise in consultations. It also led to the (voluntary) closing of all private GP practices in Eskişehir. The consultation mix which had been 46:54 in favour of hospitals in 2005 shifted to 53:47 in favour of family practitioners in 2006. After the abandonment of mandatory referral (because the new family practitioners were overwhelmed by patients wanting a referral to a hospital), the ratio was still about 52:48 in 2007.

Pharmaceutical consumption. Few data are available in *OECD Health Data* on pharmaceutical consumption in Turkey. However, light has been shed on the pharmaceutical sector in Turkey by a forthcoming World Bank paper (Çelik and Seiter, 2008). There were pronounced increases in the volume of drugs prescribed between 2001 and 2007, with a particularly large increase (33% in terms of numbers of prescriptions) between 2004

and 2005, when Green Card holders were first covered for outpatient prescription drugs and SSK members were first given access to private pharmacies under the HTP. There was a new requirement in January 2008 making hospitals responsible for providing drugs and supplies required by inpatients. Previously, drugs and supplies that were not available in the hospital pharmacy had to be obtained, on prescription, by the patient, or the patient's representative, from contracted pharmacies or medical companies – although both before and after this change such drugs or supplies were provided free of charge to the patient. These developments suggest that most if not all Turkish citizens now have good and convenient access to modern drugs.

Nevertheless, spending on pharmaceuticals and other medical goods was reported to account for about 34% of total health expenditure in Turkey in 2000 (Mollahaliloğlu *et al.*, 2006), compared with an average across OECD countries of 22% in 2003 (OECD, 2005). That is not surprising. There is a tendency for the pharmaceutical share of spending to be inversely related to GDP per capita across OECD countries, because pharmaceuticals are traded internationally and world price levels tend to prevail. One report has estimated that multi-national firms capture 53% of the market for pharmaceuticals in Turkey (Sülkü, 2008).

The Ministry of Health has reported that following a decision in 2004, discounts ranging from 1% to 80% were obtained on about a thousand medicines following the introduction of a reference pricing system in Turkey based on comparisons, for biologically equivalent products, of pharmaceutical prices in five, low-price European countries. As a consequence, real public spending on medicines increased by only 16% between 2003 and 2007 despite the improvements in access mentioned above (Akdağ, 2008).

There are some remaining problems with drug prescribing in Turkey. Patients can obtain some prescribed drugs from pharmacies without a prescription. At the same time, it has been reported that in some parts of Turkey some pharmacists rent out their credentials, illegally, to a third party to open a pharmacy which is then run by a technician with limited training. This suggests that until the law intervenes, patients who approach such pharmacies without a prescription may be inadequately advised. Also, patients may be exposed to increasing out-of-pocket payments for some drugs because the incentives for providers can favour prescribing and dispensing of more expensive drugs – above the reimbursement limits of the Social Security Institute. At the same time, there is so far little if any monitoring of physicians' prescribing habits although there are now plans for the Social Security Institute to introduce such monitoring. The Social Security Institute may not always be obtaining the best possible price for drugs. Cost-effectiveness criteria are not consistently applied in reimbursement decisions, especially when drugs are therapeutically rather than biologically equivalent.

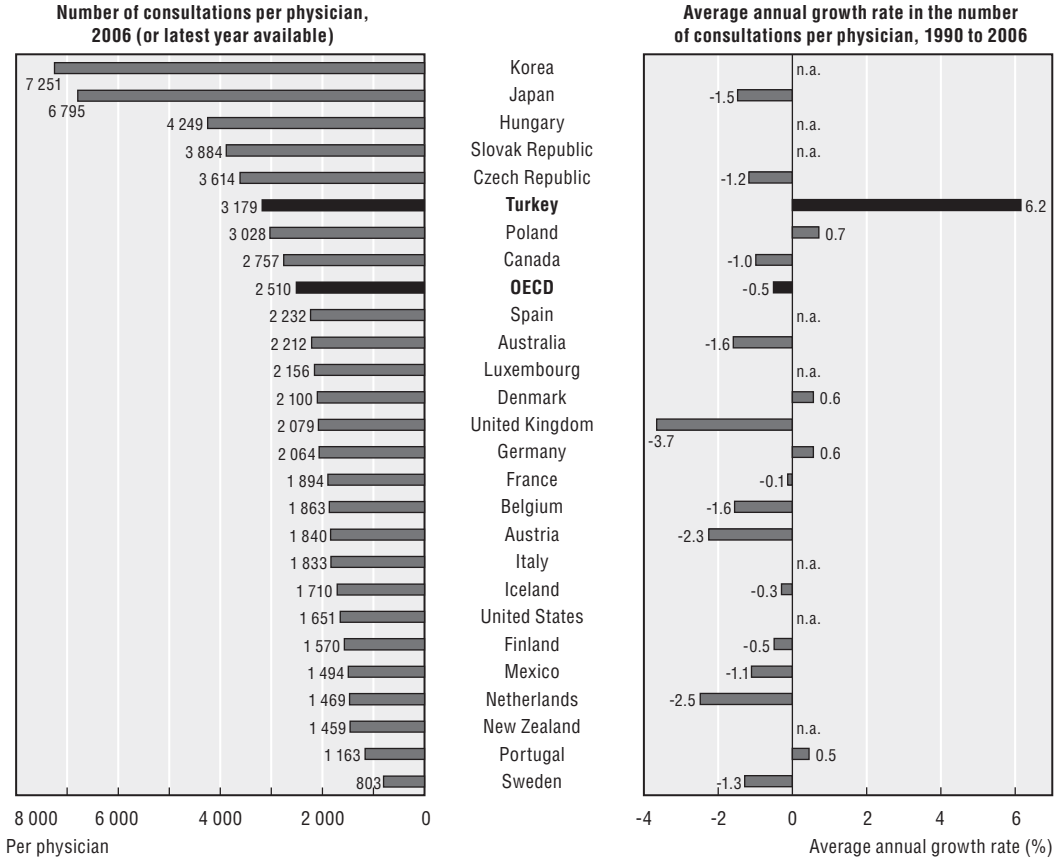
Hospital discharges. The Ministry of Health has reported that hospital discharges per 1 000 population in Turkey were 95 in 2005 and 117.6 in 2007. However, the second figure reflects a new population estimate which was lower than the former estimate. The former figure was about 60% of the OECD average in 2005 (OECD, 2007a). Hospital dischanges seem to have been rising much more rapidly in Turkey than in the OECD area as a whole – by 38.7% between 1995 and 2005 compared with an OECD average of only 6.2% (OECD, 2007a).

Productivity

Consultations per physician per year. A crude measure of doctors' productivity – albeit one which does not allow for variations in quality of care (or costs) – is consultations per

physician per year. There were 3 179 consultations per physician per year in Turkey in 2006, which was well above the OECD average at 2 510 in that year. Moreover, consultations per physician in Turkey rose to 3 630 in 2007. Consultations per physician rose at an annual rate of 6.2% per annum in Turkey between 1990 and 2006, by far the fastest growth rate of this variable in the OECD area, whereas in the average OECD country they fell by 0.5% per annum (Figure 3.23).

Figure 3.23. **Consultations per physician, OECD countries**



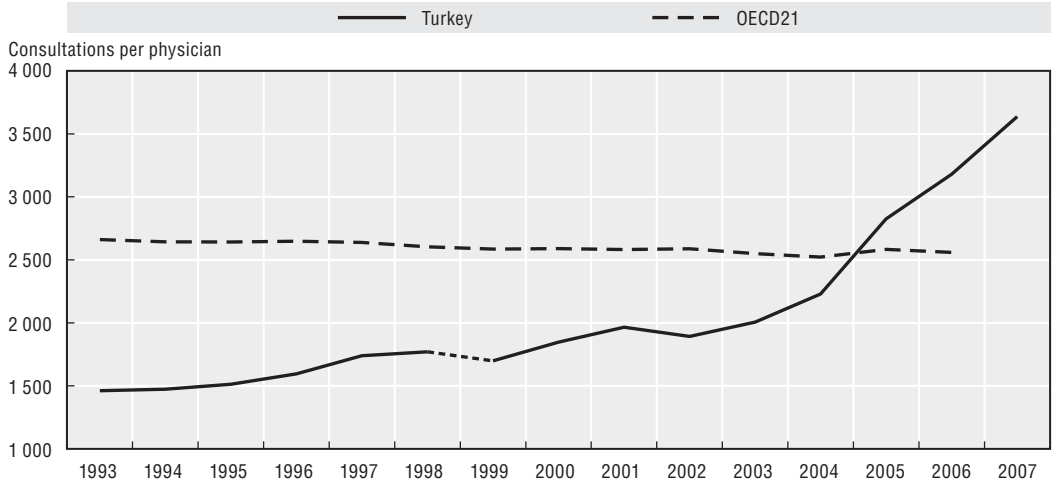
Note: For Turkey, consultations per physician for 2006 were provided by the School of Public Health. For Turkey, the average annual growth rate in consultations per physician uses *OECD Health Data 2008*, for 1990 and School of Public Health Data for 2006.

Source: *OECD Health Data 2008* and School of Public Health, MoH, Turkey.

Figure 3.24 shows how consultations per physician changed year-by-year between 1993 and 2007 in Turkey and on average among 21 OECD countries. It suggests that consultations per physician rose especially steeply in Turkey from 2004 and that they overtook the OECD average in 2005. It seems likely that the performance payment system which was introduced in 2004 in Turkey (Box 2.1), and the associated rise in physician remuneration (Figure 3.18, above) could explain these results. On the face of it, the suggestion is that the performance payment system stimulated a rise in physician productivity in Turkey, assuming that the quality of care did not change adversely.[7]

As has been mentioned, the consultation data includes consultations both in primary and in secondary care. In the case of primary care, the introduction of the performance

Figure 3.24. **Consultations per physician (headcount), Turkey and OECD, 1993 to 2007**



Note: The consistent OECD average is calculated for 21 countries.
From 2000, data on Turkey come from the School of Public Health, Turkey.
Source: OECD Health Data 2008 and School of Public Health, Turkey.

management system was supported by a trebling of expenditure on preventive and primary care between 2002 and 2007. It was also supported by: measures to attract physicians to deprived areas (with a mix of regulatory and financial incentives); activation of dormant health centres; and a sharp increase in the availability of examination rooms in health centres. Whereas only 45% of health centre doctors had their own examination room in 2002, 95% of doctors had such rooms in 2006. A beneficial result of these changes was that the rate of referral of patients from health centres to hospitals declined from 20% to 6% over the same period (Akdağ, 2007a). Moreover, in the regions where family medicine services were introduced, the ratio of consultations in primary care to consultations in hospital outpatient clinics increased from 40/60 to 51/49 (Akdağ, 2008).

There were also major improvements in access to consultations with specialists in Ministry of Health hospitals, including former SSK hospitals. The outpatient consultation rate increased by about 91% between 2002 and 2007. This was stimulated, on the demand side, partly by the inclusion of outpatient services in Green Card coverage in May 2004. On the supply side, expansion of services was aided by increased staff numbers but was mainly due to a major increase in full-time working by physicians, from 11% in 2002 to 73% in 2008 (Akdağ, 2008). Many additional examination rooms were provided in public hospitals and many physicians closed their private offices. Physicians, who had formerly consulted privately, transferred their clients to public hospitals. One of the main factors behind these changes was the strong incentive for full-time working provided under the performance-related pay system developed as part of the HTP. Nationally, the consultation mix remained about 60:40 in favour of hospitals.

Acute hospital bed occupancy. Despite reporting fewer acute hospital beds per 1 000 population than most other OECD countries, Turkey reports, nevertheless, one of the lowest bed occupancy rates in the OECD area: 65% in 2005 compared with an OECD average of 75%. That might be associated with the relative scarcity of specialist physicians and nurses in Turkey. However, bed occupancy rose to 69% in Turkey in 2007.

Length of stay. Not surprisingly, in view of Turkey's comparatively low acute bed ratio and comparatively low bed occupancy, the nation also reports a comparatively short average length of stay in acute hospitals. At 5.2 days in 2005, it was well below the OECD average of 6.3 days (OECD, 2007a) and it had decreased further to 4.6 days in 2007, according to Ministry of Health data. Average length of stay for a normal birth delivery in Turkey was 1.7 days compared with an average of 3.3 days across the OECD area as a whole in 2005.

Falling average length of stay has sometimes been used as an indicator of rising hospital efficiency in OECD countries because it can be associated both with technical improvements in the quality of care (such as the spread of less-invasive surgery and better anaesthetics) and lower costs per case. The Ministry of Health has reported that average acute length of stay fell by over 30% in Turkey between 1990 and 2007.

Quality of care

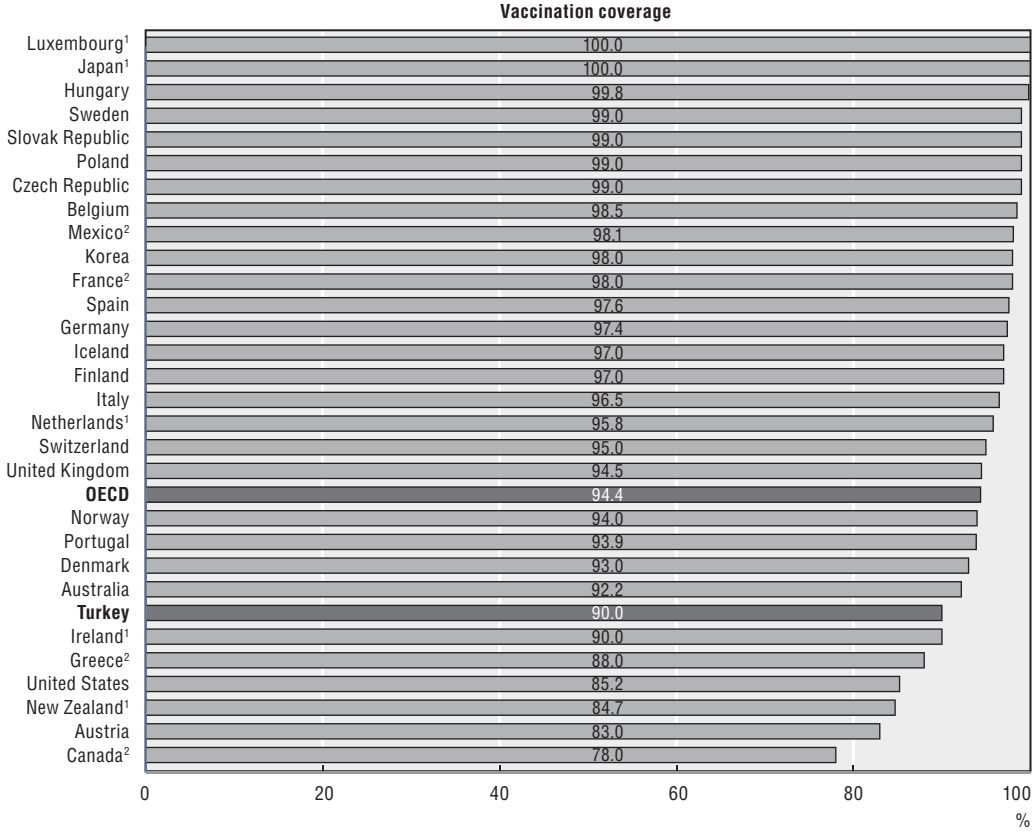
Quality of care may be examined for both of the outputs of health systems which were mentioned above: improvements in health status attributable to health care; and responsiveness to patients, or patient satisfaction.

Improvements in health status attributable to health care. In the case of improvements in health status, the OECD has begun to specify and collect data on an international set of indicators of the technical quality of health care, under the Health Care Quality Indicators (HCQI) Project (OECD, 2006a and 2007a). The indicators are a mixture of health outcome indicators and health-care process indicators. The former aim to measure changes in health status which can be attributed to medical care. The latter measures delivery of "appropriate" medical care – such as rapid administration of certain proven drugs to heart-attack victims. So far, data have been collected for 19 indicators across 29 OECD countries – although most countries have been able to report on only some of these indicators. Turkey has reported on three indicators of quality of care: the vaccination rate for pertussis for children aged 2; the vaccination rate for measles for children aged 2 (both process indicators); and the adult smoking rate (which has already been discussed above).

Turkey reported vaccination rates for pertussis at 90% and for measles at 98% for children aged 2 in 2006 (Figures 3.25 and 3.26). These rates had risen from levels around 80% in the 1990s (Akdağ, 2007a) and by 2006 were, respectively, close to the OECD average, at 93.4%, for pertussis and well above the OECD average, at 92.8%, for measles. Following a large scale vaccination campaign, which began in 2003, the Ministry of Health has subsequently reported measles vaccination rates at 98% in 2007. It has also reported that the incidence of measles fell from over 30 000, as recently as 2001, to 34 cases throughout Turkey in 2006 (Akdağ, 2007a). In 2008, no cases of measles in children had been detected in Turkey by August of that year (Ministry of Health). That suggests that Turkey is now exceeding most OECD countries in preventing measles. A similar conclusion may be drawn from world-wide comparisons of measles vaccination rates in 2006, as shown in Annex 3.A1, Figure 3.A1.7, which shows that Turkey performs much better than other comparable income and health spending countries.

All OECD countries struggle to contain hospital-acquired infections. The OECD's HCQI Project has not yet collected data on these. However, Turkey has reported: rates of pneumonia caused by ventilators; blood infections caused by catheters; and urinary-system infections caused by catheters; among a sample of hospital patients, which are

Figure 3.25. **Vaccination rates for pertussis, children aged 2, Turkey and other OECD countries, 2006**



1. 2005. 2. 2004.

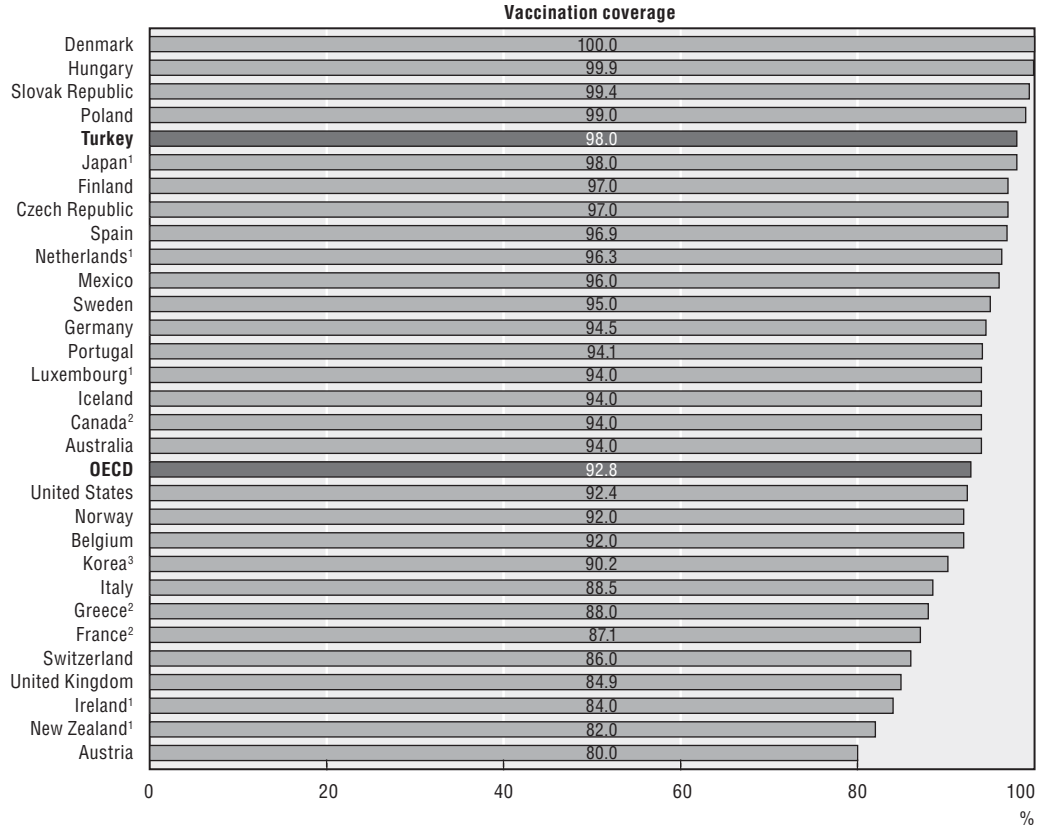
Source: OECD (2008), *Health at a Glance*.

similar to those reported, on average, for a comparison group of middle-income countries. However, rates in Turkey and this group of countries (on average) are well above those reported by the National Nosocomial Infection Surveillance System in the United States (Mollahaliloğlu *et al.*, 2007b).

Responsiveness to patients. Responsiveness to patients is another important goal of the health system. As discussed above, attempts to measure responsiveness have used three alternative instruments or combinations of them: *i)* indicators of patients' experiences with various aspects of care, such as the duration of waiting times for consultations; *ii)* indicators of subjective satisfaction with various aspects of care; and *iii)* indicators of subjective expectations about care. There is general agreement that measures of patient experience are easier to interpret than measures of subjective satisfaction or expectations, especially across different groups or populations. That is because reporting of satisfaction and expectations is relatively subjective whereas reporting of experience can be relatively objective. Also, satisfaction is likely to be dependent on expectations.

Unfortunately, few data exist which compare patient experiences across Turkey or between Turkey and other countries using standardised instruments. One example of experience data has been provided by the Ministry of Health, which reported on a study published in 2004 that suggested that average waiting times to be examined by staff in District

Figure 3.26. **Vaccination rates for measles, children aged 2, Turkey and other OECD countries, 2006**



1. 2005. 2. 2004. 3. 1999.

Source: OECD Health Data 2008.

polyclinics was 47.5 minutes and in hospital outpatient departments was 118 minutes. The respective examination times were 6.3 minutes and 7.2 minutes (Mollahaliloğlu *et al.*, 2007b). There have been reports of falling waiting times in health centres and hospitals following the introduction of the Performance Management System in 2004.

Turning to measures of patient satisfaction, Dagdeviren and Akturk (2004) have reported on satisfaction with primary care services in Turkey, before the beginning of the HTP, using the EUROPEP questionnaire (Grol *et al.*, 2000). This method of measuring satisfaction with primary care has been applied in a number of European countries, as well as in Turkey, allowing international comparisons to be made, provided the assumption is made that expectations are fairly uniform across countries. The questionnaire asks patients about 23 aspects of primary care which were identified as important to patients in a prior investigation. Respondents are asked to evaluate each aspect of care using a five-point Likert,[8] answering scale with the extremes labelled as "poor" and "excellent". In the case of Turkey, 33 practices were chosen out of 42 across Turkey which had volunteered to take part. The authors describe the study as not being representative of the whole of Turkey, although an attempt was made to stratify the sample that was chosen. It seems that most of the participating practices were small government health centres with salaried doctors. At least 30 consecutive adult patients were questioned at each practice. The response rate was 77%.

Table 3.1 shows the percentage of patients giving either "good" or "excellent" responses to each of the 23 questions on aspects of care (column 2) in Turkey and (on average) in a group of ten European countries (column 3).

Table 3.1. **Satisfaction with primary care using the EUROPEP scale, score for Turkey and average score for ten European countries**[1]

Percentages of patients who gave "good" or "excellent" responses to 23 questions on aspects of care

	Score for Turkey (%)	Average score for ten European countries (%)
Keeping your records and data confidential	68	94
Listening to you	72	89
Making you feel you had time during consultations	65	87
Providing quick services for urgent health problems	76	87
Telling you what you wanted to know about your symptoms	70	85
Thoroughness	73	85
Physical examination	75	85
Explaining the purpose of tests and treatments	68	85
The helpfulness of the staff (other than the doctor)	67	84
Making it easy for your to tell him or her about your problems	67	84
Interest in your personal situation	67	84
Helping you to feel well so that you can perform your normal daily activities	63	84
Helping you to understand the importance of following his or her advice	77	83
Involving you in decisions about medical care	61	83
Getting an appointment to suit you	70	82
Quick relief of your symptoms	63	81
Knowing what s/he had done or told you to do during previous contacts	71	81
Preparing you for what to expect from specialists or hospital care	66	79
Help in dealing with emotional problems related to your health status	60	79
Offering you services for preventing diseases (*e.g.* screening, health checks, immunisations)	64	77
Getting through to the practice on the phone	76	77
Being able to speak to the GP on the telephone	75	75
Waiting time in the waiting room	63	63

1. The ten countries were Belgium (Flanders), Denmark, Germany, Iceland, Netherlands, Norway, Slovenia, Sweden, Switzerland, and the United Kingdom.

In each of the European countries, at least 30 completed questionnaires were obtained from each of 36 practices, stratified for practice size and urbanisation.

On average, across all aspects of care, over two-thirds of Turkish patients thought that the primary care they had received was either excellent or good. However, this was about 14% below the corresponding average in ten European countries. As has been mentioned above, it is difficult to interpret this difference since no data were collected on expectations in these studies. If Turkish expectations were, say, below those in the European countries, Turkish satisfaction *adjusted for expectations* would be lower still on average in relation to Europe.

The assessments reported in Table 3.1 suggest that, on average, primary care in government health centres in Turkey in the early part of the current decade may have been rather hurried and impersonal and that confidentiality of patient records was not always observed, or believed to be observed. The authors of the Turkish study point to the lack of incentives that existed for medical staff to satisfy patients in public health centres, because of the fixed and fairly low salaries and the frequent turnover of staff. They also remark on the hierarchical nature of Turkish society in general and of medical education in

particular, and on the lack of rules in primary care about medical record keeping. The authors of another pre-HTP study point to the then pressure of demand on many primary care clinics, with patients standing in line for hours to receive hurried care at some centres (Büken and Büken, 2004).

A more recent EUROPEP survey investigated satisfaction with primary care services in a large sample of patients spread across 81 Turkish provinces in September 2008. The results are recorded in Table 3.2. It can be seen that taking all provinces together, satisfaction with most aspects of primary care has increased sharply since the EUROPEP survey reported by Dagdeviren and Akturk (2004). Particularly large improvements in satisfaction were recorded for aspects such as: "making it easy for you to tell him or her about your problems"; "involving you in decisions about medical care"; and – significantly – "offering services for preventing diseases". In a number of respects, the gap between patient satisfaction in Turkey and patient satisfaction in other European countries has closed, or nearly closed. Although satisfaction had improved with most aspects of services in provinces which have *not* yet adopted family practitioner services, the improvements in satisfaction in the 23 provinces which *have* adopted family practitioner services are much larger and have often matched or overtaken average levels in Europe. On the basis of this evidence, Turkish patients seem to be delighted with their new family practitioner services.

Table 3.2. **Satisfaction with primary care using the EUROPEP scale, 2008 Survey, 81 provinces, Turkey**

Percentages

	Family physician provinces (23 provinces)	Other provinces of Turkey (58 provinces)	Total (81 provinces)
Making you feel you had time during consultations	89.6	76.8	80.5
Interest in your personal situation	89.9	77.8	81.3
Making it easy for your to tell him or her about your problems	90.8	80.3	83.3
Involving you in decisions about medical care	86.5	75.3	78.6
Listening to you	93.3	83.4	86.3
Keeping your records and data confidential	90.7	82.0	84.5
Quick relief of your symptoms	86.8	77.5	80.1
Helping you to feel well so that you can perform your normal daily activities	86.8	77.5	80.1
Thoroughness	91.2	83.6	85.7
Physical examination	90.4	82.9	85.0
Offering you services for preventing diseases (*e.g.* screening, health checks, immunisations)	84.5	78.8	80.5
Explaining the purpose of tests and treatments	88.7	77.9	81.0
Telling you what you wanted to know about your symptoms	90.1	78.8	82.0
Help in dealing with emotional problems related to your health status	83.4	72.5	75.6
Helping you to understand the importance of following his or her advice	88.5	77.4	80.6
Knowing what s/he had done or told you to do during previous contacts	85.1	73.3	77.1
Preparing you for what to expect from specialists or hospital care	82.7	74.3	76.7
The helpfulness of the staff (other than the doctor)	86.9	77.9	80.4
Getting an appointment to suit you	78.8	66.4	70.0
Getting through to the practice on the phone	75.3	59.4	63.9
Being able to speak to the GP on the telephone	72.2	58.1	62.1
Waiting time in the waiting room	76.7	63.7	67.4
Providing quick services for urgent health problems	83.1	75.7	77.8

Turning to satisfaction with hospital care in Turkey, Büken and Büken (2004) have pointed to a lack of awareness among patients, pre-HTP, of their rights, as specified in Turkey's Patients' Bill of Rights which was passed in 1998. Another study by Kuzu *et al*., in three hospitals in Denizli province in 2001 suggests that very few patients were aware of the regulation about patient rights, pre-HTP. However, the HTP reinforced the recognition of patients' rights by, among other things, introducing "Patients Rights Units" in all state hospitals and has been gradually rolling out the right to choose physician in such hospitals since September 2004 (Akdağ, 2007a). By 2008, 786 state hospitals offered patients the right to choose their physician.

Bostan *et al.* (2007) reported on a survey of patients' expectations about hospital care in Trabzon. This small survey included 396 adults, who had visited hospital at least once from different districts of the city. The survey was conducted in 2004. Thirty-three questions were devised, based on Turkey's legislation on patients' rights. These include (in summary) rights: to be informed about care; to be able to choose aspects of care; to be treated skilfully and considerately by staff; and to be supported by good management and hotel functions in the hospital.

The survey found that a majority of respondents either agreed or agreed strongly that they enjoyed rights to many aspects of care. For example, 94.6% agreed or agreed strongly that they had the right to choose a hospital, 85.1% that they had the right to prosecute (in case of malpractice), and 79.8% that they had the right to receive information about their disease. However, at the other end of the scale, only 14.4% of patients agreed or agreed strongly that they had the right to choose their treatment method. And only about one-third of patients agreed or agreed strongly that they had the following rights: not to have their privacy revealed; to change their health personnel; to have medical care from well-educated and assigned personnel; to be shown necessary care during treatment; to be assured of following of official processes by personnel; and to complain about their care. Expectation levels increased with education status and income and decreased with the age of patients. Patients insured with Bağ-Kur or holding a Green Card had lower expectations than patients in other health insurance schemes.

Using a point scoring system, the authors concluded that expectations fell below the "minimum acceptable level" for 18 out of 33 of the aspects of hospital care which were examined. They cited a number of other published studies which had revealed high or fairly high satisfaction with various aspects of care in Turkish hospitals but in the light of their own findings in Trabzon, questioned whether such results were due to high quality of services or to low expectation levels in Turkey.

There have been some comparisons of patient satisfaction between public and private hospitals in Turkey. For example, Tengilmoglu *et al*. (2001) reported the results of a patient satisfaction survey across four public and three private hospitals in Ankara in 1996. Over 2 000 patients were questioned by interviewers. Reported waiting times for examinations were lowest in two of the private hospitals. However, waits in the third private hospital were higher than in three of the four public hospitals. In these three public hospitals, over 40% of patients considered that they had not waited at all to be examined and less than 20% of patients reported having waited for more than 60 minutes. In the remaining public hospital, 56% of patients reported having waited more than 60 minutes to be examined. Satisfaction scores for aspects of service such as: "helpfulness and general attitude of the hospital's physicians", "physicians skill, experience and training", and "nurses skill,

experience, behaviour and training", using a five-point Likert satisfaction scale, were generally higher in the private than in the public hospitals.

However, national surveys suggested that relative satisfaction with public and private hospitals has changed in favour of the former following the HTP. The Turkstat Life Satisfaction Survey in 2003 suggested that 41% of respondents were satisfied with public hospitals, 47% were satisfied with university hospitals and 49% were satisfied with private hospitals. The corresponding survey in 2007, suggests that 67% were satisfied with public hospitals, 69% were satisfied with university hospitals and 61% were satisfied with private hospitals. Satisfaction rose by 26 percentage points in public hospitals, by 22 percentage points in university hospitals and by 12 percentage points in private hospitals.

3.3. Conclusions

This chapter has assessed the performance of Turkey's health system in terms of health outcomes, financial protection and consumer responsiveness. Performance has been assessed against OECD member countries as well as world-wide (in Annex 3.A1). Reassuringly, the two sets of comparisons paint a similar picture.

Conclusions on health status and the level of health spending

1. Health status in Turkey has been improving rapidly in recent decades and in some respects has been converging with OECD averages. Nevertheless, life expectancy in Turkey remains lower than in any other OECD country and infant and maternal mortality remain higher. Despite recent improvements under the HTP, Turkish heath status still appears to be slightly below the level that might be expected when comparisons are made between Turkey and other upper middle-income countries outside the OECD area.
2. While many factors are responsible for these improvements in health status in Turkey, it seems to be plausible to argue that a significant part has been due to higher and more effective spending on health care in recent decades. Nevertheless, while both total spending on health care and public spending on health care do not appear to be excessive, judging by spending levels in other OECD countries, when Turkey is compared to other upper middle income countries, its public spending on health, however measured, is at or above the global comparator averages. Also, in the first three years following the introduction of the Health Transformation Programme in 2003, although health expenditure rose rapidly, increases in both total and public spending on health care seem to have remained affordable because economic growth in Turkey was also rapid.
3. There are other important determinants of health status in Turkey, including low GDP per capita, low educational status (especially among women), rising obesity levels, and high smoking rates (at least among men). That suggests that in Turkey, investment in additional prevention of ill-health may be as important as investment in additional curative care.

Conclusions on financial protection and equity in access to care

1. A long succession of improvements in effective health insurance coverage in Turkey, culminating in passage of legislation introducing Universal Health Insurance in 2008, have improved both financial protection for the poor against high health expenditure, and equity in access to health care across the population. In previous years, the lack of health insurance cover, and inadequacies in benefits, for some of the more

disadvantaged groups in the population, are likely to have played an important contributory role in determining the comparatively lower health status for certain indicators in Turkey. However, the percentage of the population impoverished due to catastrophic medical spending is small and has been declining. It is also low relative to other countries where data are available.

2. The presence of the "inverse care law" (when access to care is related inversely to the need for care) in Turkey can be illustrated with regional data, which suggest that in 2007 the density of physicians was, broadly speaking, negatively associated with infant mortality across Turkish regions. However, under the HTP there has been a significant increase in medical staffing in the East of Turkey, where the need is greatest.

Conclusions on inputs, remuneration, activities and value for money

1. Only scanty data are available to judge the level of microeconomic efficiency in the Turkish health system, particularly as unit cost and detailed utilisation information is lacking. On the input side, the nurse/physician ratio is one of the lowest in the OECD, raising questions about appropriate skill mix. Only about 30% of physicians were practising as GPs in 2005, which is likely to have contributed to reported weakness in primary care. After planned increases in medical student intake, physician graduation rates are set to be the highest in the OECD area in 6-10 years time. In contrast training rates for nurses appear to remain low.
2. Remuneration of physicians and other staff rose sharply with the introduction of performance-related pay in 2004 and has also risen when GPs have become family practitioners. By 2005, the relative remuneration of salaried GPs in government health centres still looked low in comparison with other OECD countries but salaried specialist remuneration looked high – but that might be due partly to the fact that Turkey has the lowest density of specialists among the countries in the comparison. The relative remuneration of nurses seems to be fairly typical compared with a number of other OECD countries.
3. Pharmaceutical consumption has been increasing in terms of volume, especially in 2005 when coverage was improved for Green Card and SSK scheme members. Various price reductions have been achieved in recent years which suggest that value for money may have risen. However, some doubts remain about the rationality and cost-effectiveness of drug consumption in Turkey.
4. Since the introduction of performance-related pay, there seem to have been large increases both in the volume of activity and in physician productivity in Turkey, judging by reported consultations per physician (headcount). By 2006, reported consultations per physician had reached levels which exceeded the average level in the OECD by over 25%. There may be lessons for other OECD countries to learn from Turkey's apparent success with using performance-related pay to raise doctor's productivity – although the effect on health outcomes is not yet clear and more rigorous evaluations are still in progress. Also, despite some progress having been made towards the introduction of a family practitioner system in Turkey, the consultation mix remained weighted towards hospital attendances compared with some other OECD countries. Average length of stay in hospital, however, was shorter than the OECD average in 2005.
5. There are few data available on the technical quality of medical care in Turkey – that is on health outcomes. However, there have been major improvements in vaccination rates

for children. Measles was almost eliminated in Turkey in 2007. Data on the responsiveness of the system and on satisfaction with care suggest that there were long waits for, and low satisfaction with, both health centre and hospital care prior to the introduction of the HTP. Turning to patient satisfaction, following the introduction of the HTP, there were reports of: shorter waiting times; of steeply rising overall satisfaction with the quality of health care, especially with the quality of primary care in provinces which have adopted family practitioner services. There is also evidence of a strong improvement in patient satisfaction with public hospitals.

Notes

1. According to the World Bank's classification, Turkey (together with Hungary, Mexico, Poland and the Slovak Republic, among OECD countries) is categorised as an "upper middle-income" country. The remaining OECD countries are categorised as "high-income" countries. Upper middle-income countries are defined as those with gross national income (GNI) per capita between USD 3 956 and USD 11 115 in 2006. High-income countries are defined as those with GNI per capita above USD 11 116 in 2006.
2. There are breaks both in the GDP per capita series and in the health expenditure series in Turkey from the late 1990s, because of improvements in estimation methods for subsequent years. The break can be removed from the health expenditure series by estimating the change in expenditure in the year concerned as the average growth of the preceding and following years.
3. This figure is derived from *OECD Health Data 2008*. However, according to both *OECD Health Data 2008* and the National Health Accounts (Mollahaliloğlu *et al.*, 2006), the public health share of total health spending was only 63% in Turkey in 2000 – essentially because additional private expenditure on health care was identified in that year. Since at the time this report was finalised, detailed health accounts had not yet been prepared in Turkey for years since 2000, it is possible that private expenditure has been underestimated and the public share of spending overestimated in the health expenditure reported here for years since 2000.
4. These data are based on sales of alcohol and should be free of self-reporting bias but will not, of course, include alcohol produced or sold illegally.
5. Assuming that the average physician works for 30 years, before retirement or resignation, and there is no immigration or emigration of physicians.
6. The OECD's definition of "consultations" includes both visits to office-based physicians and visits to physicians in hospital outpatient departments.
7. However, three notes of caution should be registered. First, physician headcounts have been used in estimating the ratio of consultations to physicians. No adjustments have been made for changes in part-time working among physicians In fact, as is mentioned in the main text, there was a strong switch to full-time working by physicians in public hospitals from 2004, which suggests that the change in consultations per hour of physician time will have been smaller than the change in consultations per physician. Secondly, physicians who switched to full-time working in public hospitals may have brought some of their private patients – previously unrecorded – into their public clinics, increasing recorded consultations. Thirdly, it is possible that the performance management system, by incentivising reporting of consultations, will have encouraged more complete reporting of public consultations which had previously gone unrecorded.
8. A Likert scale is a psychometric response scale widely used in questionnaires. Respondents are asked to specify their level of agreement to a statement. There are often 5 levels of agreement specified: 1) strongly disagree; 2) disagree; 3) neither agree nor disagree; 4) agree; and 5) strongly agree.

ANNEX 3.A1

The performance of the Turkish health system based on comparisons with all countries in the world

Introduction

While assessing health system performance against OECD benchmarks is indeed important for informing Turkey's transition path, it is also important to understand Turkey's health system performance with respect to other countries – especially other upper-middle income countries – including those which are not members of the OECD.

Unfortunately, the health data bases for all countries in the World are much less extensive than the OECD health data base. Data on various aspects of health status, utilisation, spending, and quality are much more sparse globally and often less reliable; time series data are generally not available; and, there is a great deal more variability in definitions. Nevertheless, it is possible to see how the Turkish health system performs along a variety of key dimensions by making cross-section comparisons based on global regression relationships for all countries including comparable upper-middle income countries for a recent year.

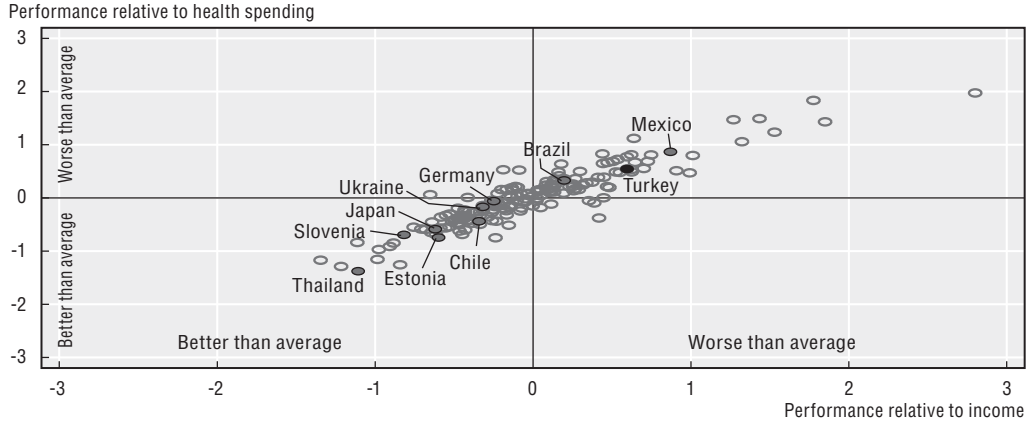
This annex reviews the performance of the Turkish health system with respect to the following indicators: health status; several determinants of health status; selected health-care human resource indicators; and, the level of total and public health spending. Turkey's performance on these measures is assessed relative to the levels found in all countries, including other middle-income countries, using, where possible, the latest available 2006[1] data from WHO and the World Bank.

Health status

In this section, an assessment is made of three indicators of the health status of the Turkish population in relation both to national income *and* health spending levels based on regression lines fitted to the international data. In this section, the comparisons employ quadrant charts which show, simultaneously two sets of deviations from regression lines: *i)* deviations from a regression line associating a specific indicator of health status (such as infant mortality) to *GDP per capita* across countries, and *ii)* deviations from a regression line relating the same indicator of health status to *health expenditure per capita* across countries. This device enables one to see simultaneously how various indicators of Turkey's health status deviate from those of comparable countries, after allowance for the effects of both national income and health spending has been made separately on the same chart.

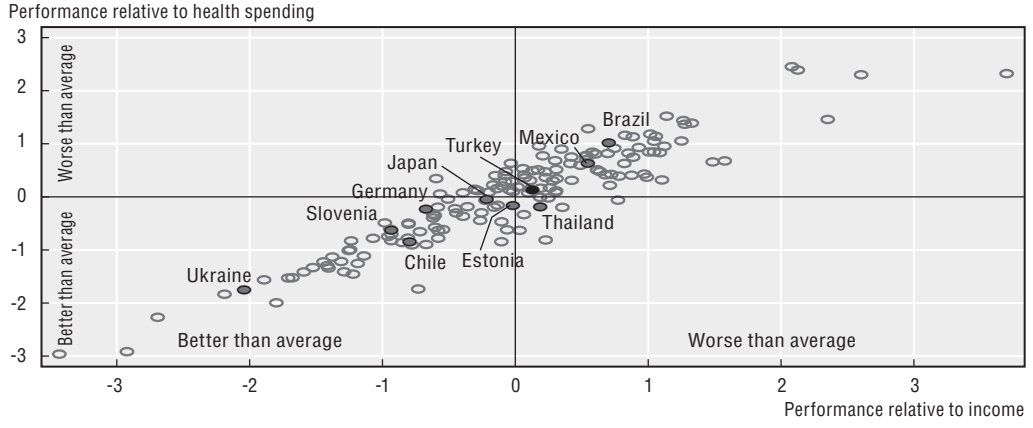
Figures 3.A1.1 to 3.A1.3 show, using quadrant charts, how Turkey compares to other comparable GDP per capita and health spending per capita countries on three specific health status measures: infant mortality, maternal mortality, and life expectancy. Overall, the results concerning national income appear to be consistent with the comparisons based on OECD countries only, in Chapter 3. Turkey appears to do worse than average relative to countries with comparable GDP and health spending per capita on infant mortality (Figure 3.A1.1) and maternal mortality (Figure 3.A1.2). However, while this latter comparison is based on the most up to date (2005) and comparable international maternal mortality data, given Turkey's significant progress in recent years discussed above, an improved picture might emerge if 2007 global data were available.[2] With respect to life expectancy (Figure 3.A1.3), Turkey's performance is about the same as other comparable per capita health spending countries and slightly worse than countries with similar income per capita.

Figure 3.A1.1. **Deviations from regression lines relating infant mortality to GDP per capita and health expenditure per capita, 2006**



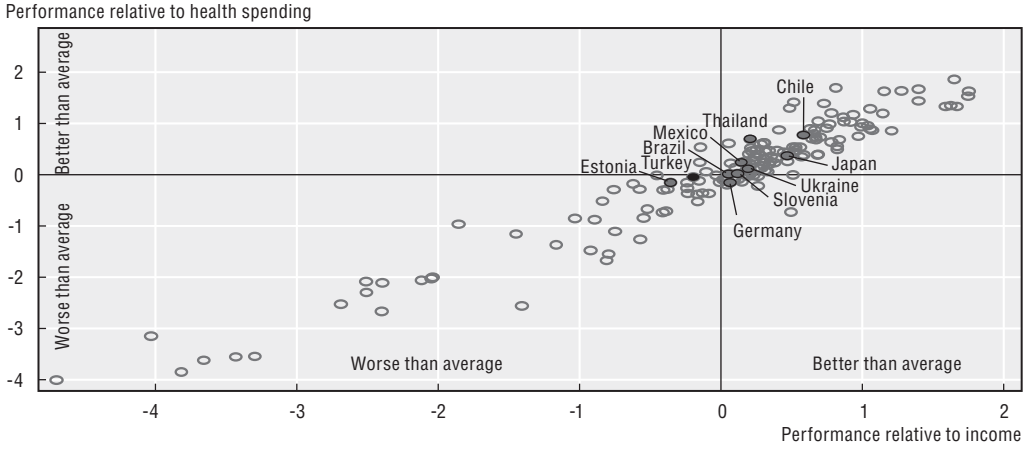
Source: *World Development Indicators* and WHO, accessed Aug. 2008. Health expenditure data are preliminary as of August 2008.

Figure 3.A1.2. **Deviations from regression lines relating maternal mortality to GDP per capita and health expenditure per capita, 2005**



Source: *World Development Indicators* and WHO (2007). Health expenditure data are preliminary as of August 2008.

Figure 3.A1.3. **Deviations from regression lines relating life expectancy to GDP per capita and health expenditure per capita, 2006**

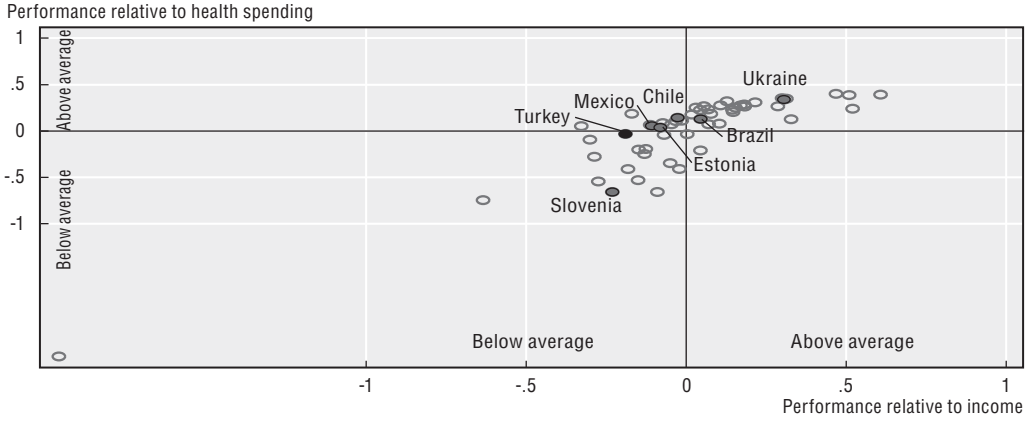


Source: World Development Indicators and WHO, accessed Aug. 2008. Health expenditure data are preliminary as of August 2008.

Determinants of health status

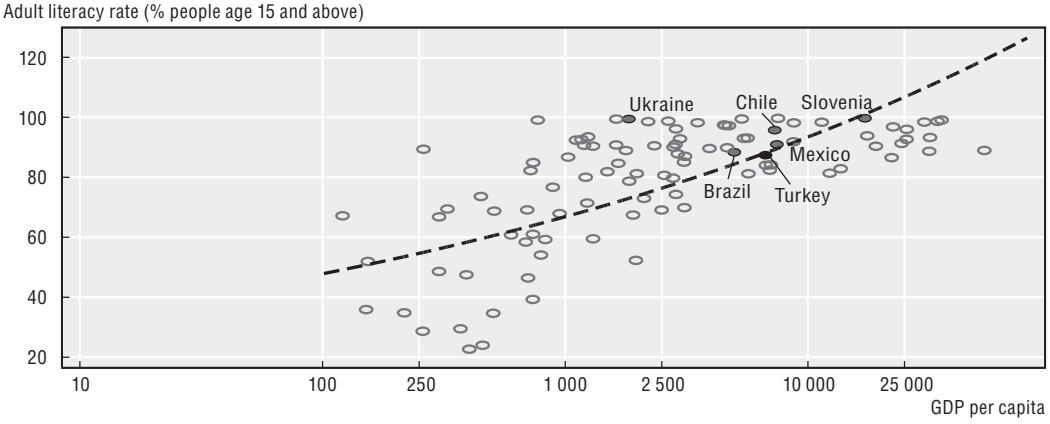
Figures 3.A1.4 to 3.A1.7 present evidence for several determinants of health status, for which data from most countries are available. Figure 3.A1.4 shows the proportion of births attended by skilled health personnel. Turkey is slightly below the average level relative to its per capita income and about average for its per capita health spending level. These results may help to explain the above-average infant mortality rate in Turkey, noted above. Figure 3.A1.5 shows the simple regression line for adult literacy and Figure 3.A1.6 for female adult literacy for most of the countries in the world. Turkey is approximately average for overall literacy given its income but below the average level for female adult literacy. Again, the second of these figures may help to explain why infant mortality is above the expected level in Turkey. By contrast, Figure 3.A1.7 suggests that Turkey does better than comparable income and health spending level countries on measles immunisation rates – a finding which supports the evidence presented in Chapter 3.

Figure 3.A1.4. **Deviations from regression lines relating skilled birth attendance to GDP per capita and health expenditure per capita, 2005**



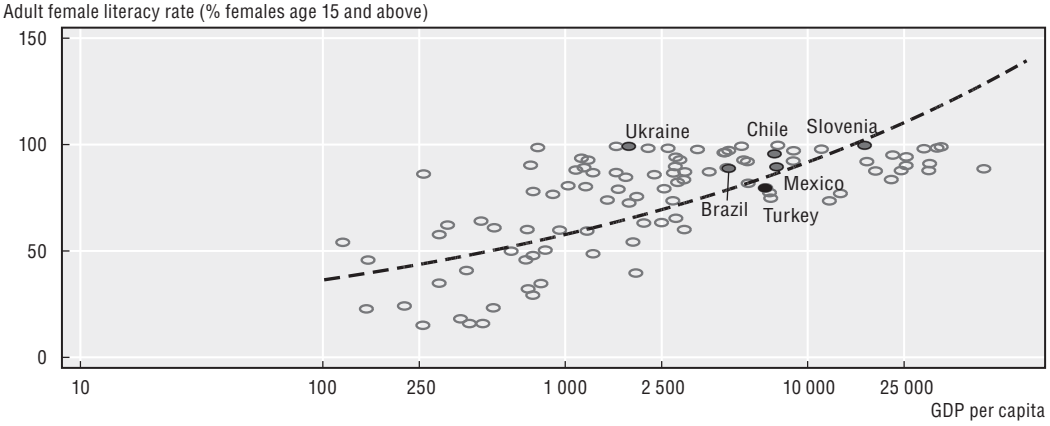
Source: World Development Indicators and WHO (2007). Health expenditure data are preliminary as of August 2008.

Figure 3.A1.5. **Adult literacy and GDP per capita, 2005**



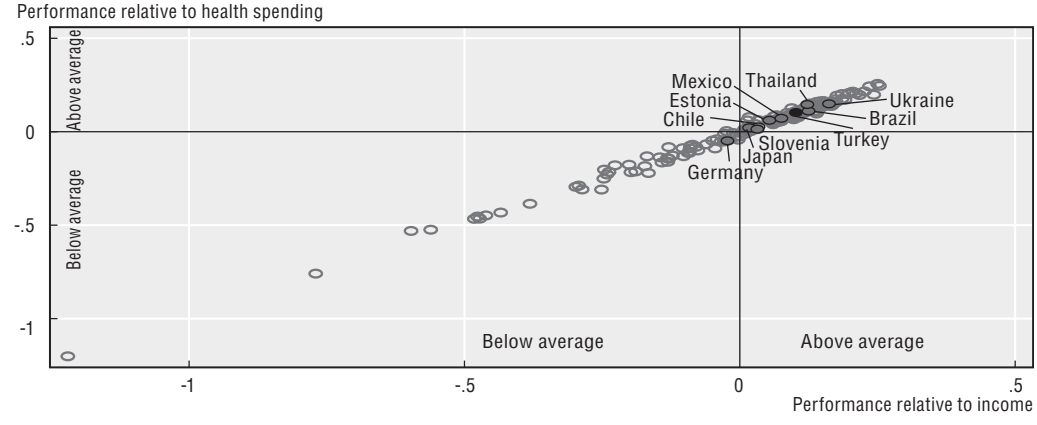
Note: GDP per capita in current USD; Log scale.
Source: *World Development Indicators* and WHO (2007).

Figure 3.A1.6. **Adult female literacy and GDP per capita, 2005**



Note: GDP per capita in current USD; Log scale.
Source: *World Development Indicators* and WHO (2007).

Figure 3.A1.7. **Deviations from regression lines relating measles immunisation rate to GDP per capita and health expenditure per capita, 2006**

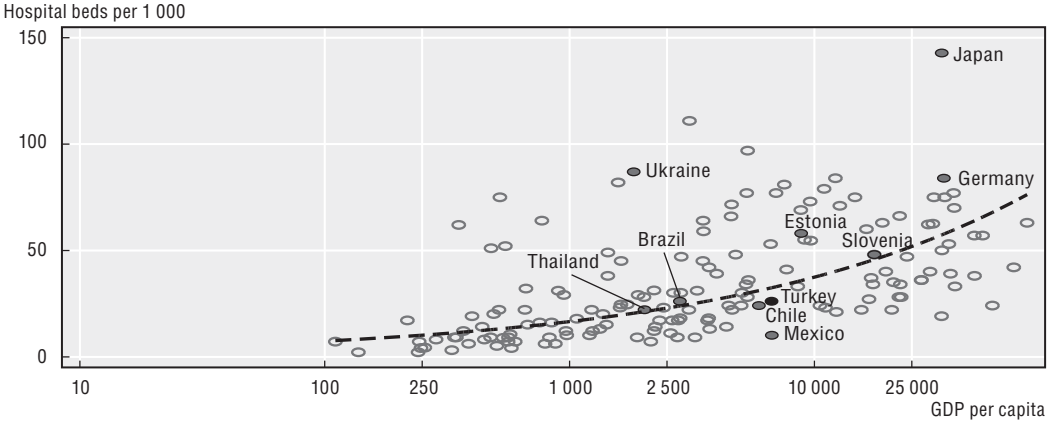


Source: *World Development Indicators* and WHO, accessed Aug 2008. Health expenditure data are preliminary as of August 2008.

Health-care resources

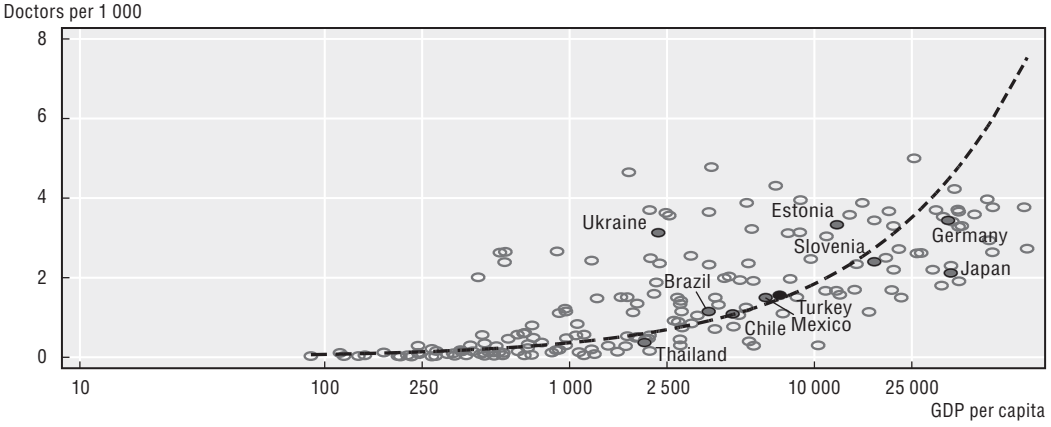
This section compares levels of some of Turkey's health-care resources – in particular, hospital beds and human resources for health, (HRH) – with those of other comparable income countries. Figures 3.A1.8 to 3.A1.10 display hospital bed to population, physician to population, and total health workers to population ratios, respectively, relative to GDP per capita for most of the countries in the world. In terms of hospital beds per 1 000 population, Turkey has fewer beds per capita relative to other comparable income countries (Figure 3.A1.8). However, this regression line is biased upward by the Former Soviet Union (FSU) countries, which had (and many still have) very large numbers of beds. With respect to HRH, Turkey has about the average number of physicians per capita found in comparable income countries (Figure 3.A1.9), but, as pointed out in Chapter 3, is well below the OECD average. In term of total HRH, Turkey appears to be well below the average for its income comparators (Figure 3.A1.10).

Figure 3.A1.8. **Hospital beds per 1 000 population and GDP per capita, 2000-06**



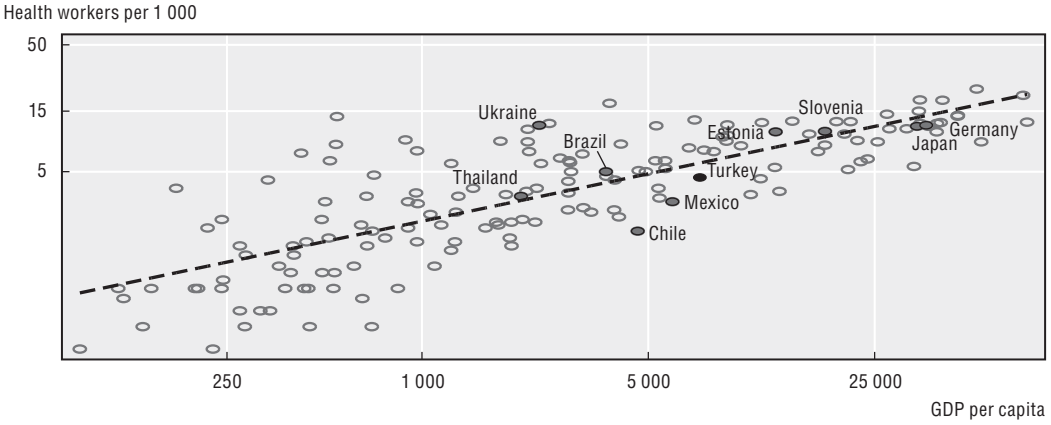
Note: GDP per capita in current USD; Log scale.
Bed and GDP per capita data are for latest available year.
Source: *World Development Indicators* and WHO (2007).

Figure 3.A1.9. **Doctors per 1 000 population and GDP per capita, 2000-06**



Note: GDP per capita in current USD; Log scale.
Doctor and GDP per capita data are for latest available year.
Source: *World Development Indicators* and WHO (2007).

Figure 3.A1.10. **Health workers[1] per 1 000 population and GDP per capita, 2000-06**



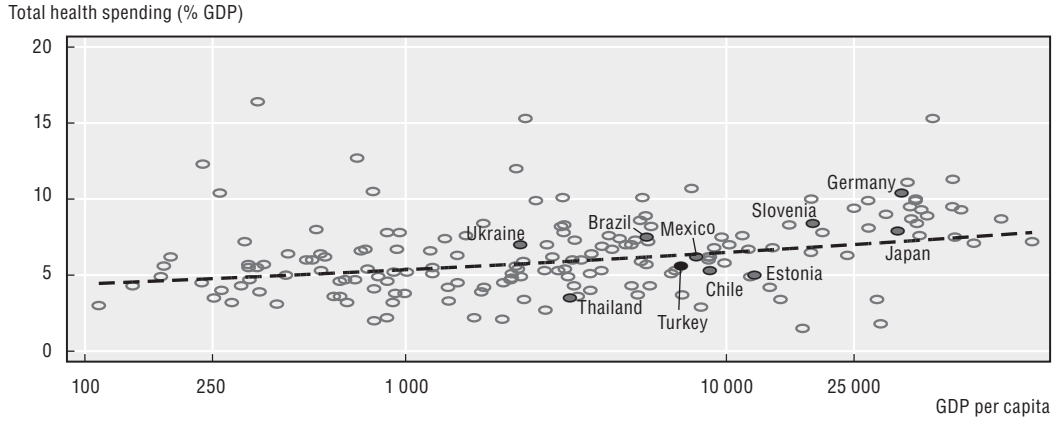
Note: GDP per capita in current USD; Log scale.
Health worker and GDP per capita data are for latest available year.
1. Health workers include doctors, nurses, midwives, and community and traditional health workers.
Source: *World Development Indicators* and WHO (2007).

The level of total health expenditure and public expenditure on health

This section compares levels of total health and public spending on health between Turkey and other countries in the world.

Figures 3.A1.11 and 3.A1.12 indicate that total health expenditures as a share of GDP and per capita total health spending respectively are quite close to the levels that would be expected for a country with Turkey's standard of living, with the health to GDP ratio and per capita total health spending just slightly below the global average. However, Figure 3.A1.13 suggests that Turkey's *public* share of total health expenditure is relatively high – above the level that would be expected from the corresponding regression line.[3] As a consequence, it is not surprising that *public* spending on health care, whether measured as a share of GDP (Figure 3.A1.14), in per capita terms (Figure 3.A1.15), or as a share of the overall government spending (Figure 3.A1.16), is at or above the expected level, judging by regression lines relating these three measures of public spending, respectively, to GDP per capita. This suggests that public spending on health care has been a higher priority in Turkey than in some other middle-income countries. It also complements the findings, reported in Chapter 3, about relatively low out-of-pocket spending in Turkey. Whether Turkey will have the fiscal space to sustain such levels of public expenditure on health in light of other spending priorities and likely future health sector-specific cost pressures is discussed in Chapter 4.

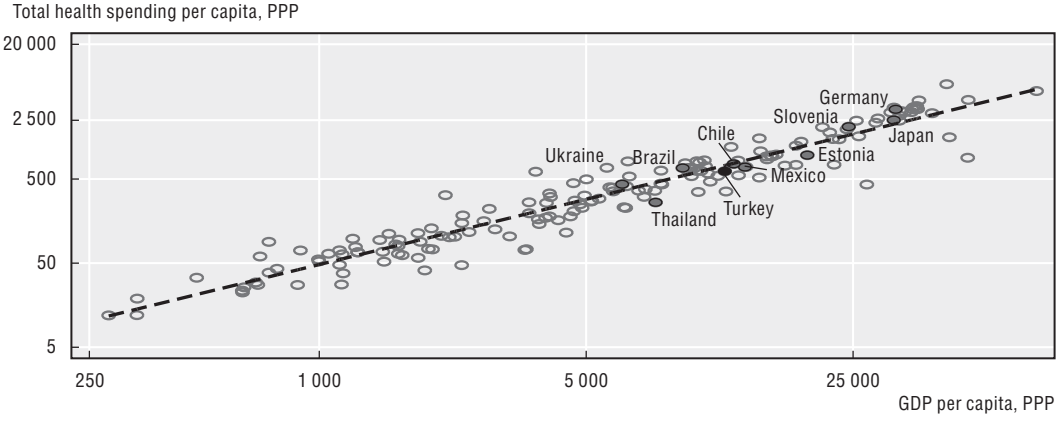
Figure 3.A1.11. **Total health expenditure as a share of GDP and GDP per capita, 2006**



Note: GDP per capita in current USD; Log scale.

Source: *World Development Indicators* and WHO, accessed Aug. 2008. Health expenditure data are preliminary as of August 2008.

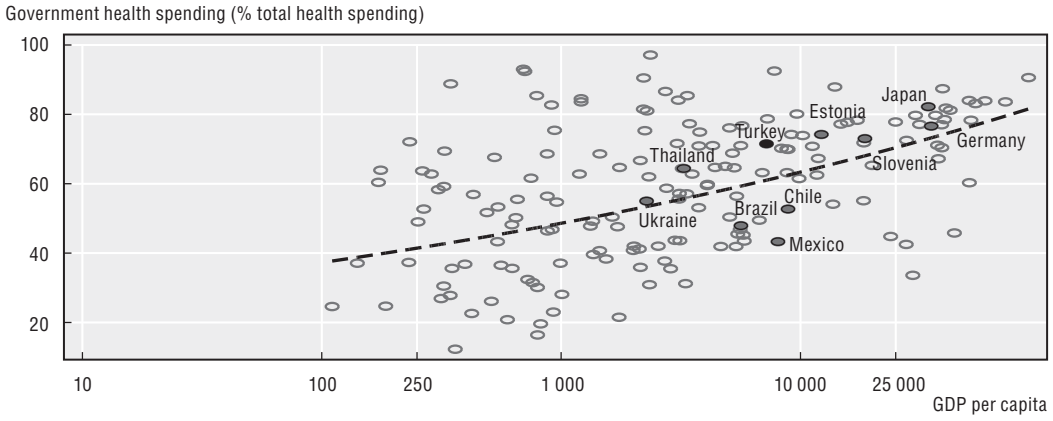
Figure 3.A1.12. **Total health expenditure per capita (USD PPP) and GDP per capita, 2006**



Note: GDP per capita in current USD; Log scale.

Source: *World Development Indicators* and WHO, accessed Aug. 2008. Health expenditure data are preliminary as of August 2008.

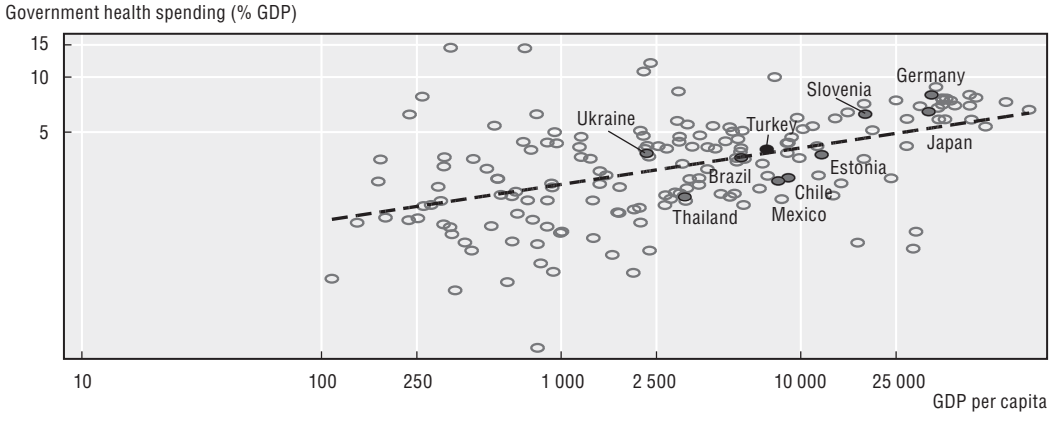
Figure 3.A1.13. **Public expenditure on health as a share of total health expenditure and GDP per capita, 2006**



Note: GDP per capita in current USD; Log scale.

Source: World Development Indicators and WHO, accessed Aug. 2008. Health expenditure data are preliminary as of August 2008.

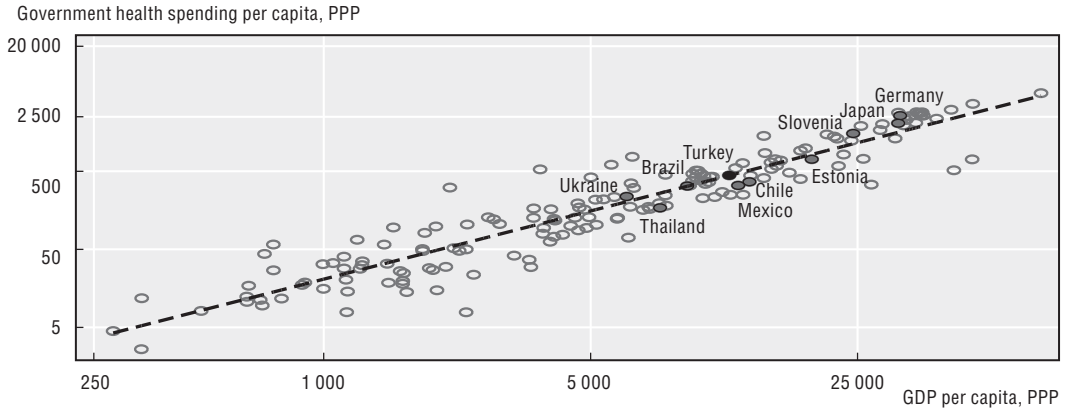
Figure 3.A1.14. **Public expenditure on health as a share of GDP and GDP per capita, 2006**



Note: GDP per capita in current USD; Log scale.

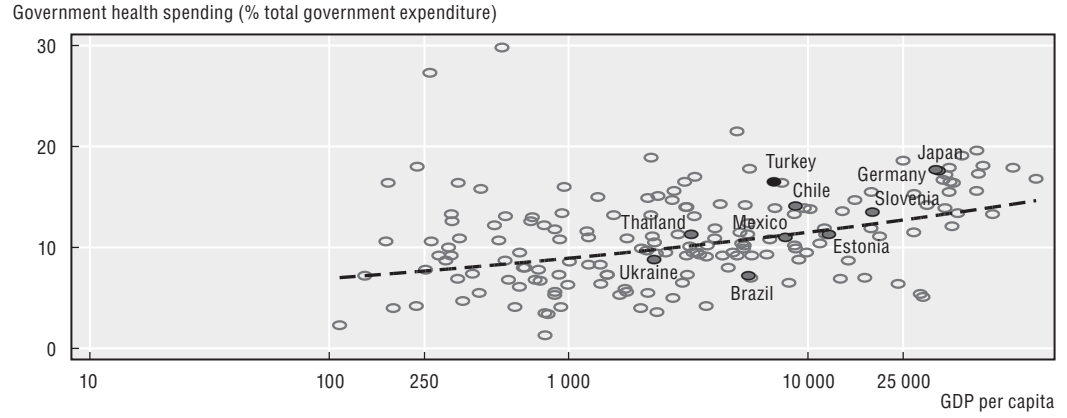
Source: World Development Indicators and WHO, accessed Aug. 2008. Health expenditure data are preliminary as of August 2008.

Figure 3.A1.15. **Public expenditure on health per capita and GDP per capita, 2006**



Note: GDP per capita in current USD; Log scale.
Source: World Development Indicators and WHO, accessed Aug. 2008. Health expenditure data are preliminary as of August 2008.

Figure 3.A1.16. **Public expenditure on health as a share of total government expenditure and GDP per capita, 2006**



Note: GDP per capita in current USD; Log scale.
Source: World Development Indicators and WHO, accessed Aug. 2008. Health expenditure data are preliminary as of August 2008.

Notes

1. For some variables, data for 2005 or earlier years (*e.g.*, for maternal mortality and health infrastructure) are the latest available. For purposes of these analyses we employed the latest available year. See the World Bank's 2007 World Development Indicators database for the specific years of availability by variable and country.
2. Maternal mortality figures used are the most comparable data from a recently published joint WHO, UNICEF, UNFPA, and World Bank assessment: *Maternal Mortality in 2005* (WHO, 2008). For Turkey the figure used by these organisations as the most comparable internationally is 44, which reflects the midpoint of the 29 lower bound to 58 upper bound range. If the lower bound for Turkey were used, then Turkey's performance on both income and health spending would be better than other comparable countries.
3. However, estimates of the public share of health spending in Turkey differed at the time this report was completed. See note 3 to the main text, p. 85.

ISBN 978-92-64-05108-9
OECD Reviews of Health Systems
Turkey

Chapter 4

Policy Challenges and Options for Further Reform

4.1. Introduction

This chapter assesses Turkey's reform efforts in the context of the global evidence base on "successful" health-care reforms. It considers some contextual issues which will face the Turkish health system in the future. It makes an assessment of the Health Transformation Programme (HTP) and the steps needed to complete its implementation over the next five years. It considers some of the opportunities and challenges facing the health system in the longer term, and it offers alternative projections of costs based on likely future scenarios of economic growth, demographic/epidemiology changes, and increases in service use and provision. It identifies several critical areas for future health policy choices in Turkey. Finally, Box 4.2 puts forward key suggestions for meeting these challenges.

4.2. The evidence base on successful health-care reforms

In assessing Turkey's reform efforts to date, it is instructive to contrast Turkey's processes and policies with the evidence base on "good practices" in large-scale health financing reforms. While the evidence base is far from complete,[1] several recent OECD and World Bank studies attempt to assess the common enabling factors for successful health reforms. This type of comparison is of interest as there are few low- and middle-income countries which have actually undertaken "big bang" health sector reforms and achieved universal coverage.[2] The World Bank's most recent study, "Good Practices in Health Financing: Lessons from Low- and Middle-Income Countries" identifies 15 "enabling" factors based on nine "good practice" cases. These factors are completely consistent with those in a previous Bank study which identified the key enabling factors in high-income countries.[3]

The enabling conditions for good-practice reforms are grouped into three broad categories: institutional and societal factors, policy factors, and implementation factors. Table 4.1 contains the 15 "enabling" factors.

Table 4.1. **Enabling conditions for health reforms**

Institutional and societal factors	Implementation factors
• Strong and sustained economic growth • Long-term political stability and sustained political commitment • Strong institutional and policy environment • High levels of population education	• Coverage changes accompanied by carefully sequenced health service delivery and provider payment reforms • Good information systems and evidence-based decision-making • Strong stakeholder support • Efficiency gains and co-payments used as financing mechanisms • Flexibility and mid-course corrections
Policy factors	
• Commitment to equity and solidarity • Health coverage and financing mandates • Financial resources committed to health, including private financing • Consolidation of risk pools • Limits to decentralisation • Primary care focus	

Source: Gottret *et al.* (2008).

Most of these common enabling factors have been present in Turkey, and indeed have provided much of the impetus for the reform. Nevertheless, given the long-term nature of "big bang" universal coverage reforms, several of these factors are still very much germane, particularly the fiscal issues and service delivery changes such as the sequencing of service delivery reforms (*e.g.* increasing the overall physician and family practitioner supply), provider payment reforms, efficiency gains, use of copayments, and the need for strong and sustained economic growth. As discussed below, there are a number of unfinished items in the HTP and Social Security agendas which directly bear on these enabling conditions.

4.3. Contextual issues

Demographic and epidemiological prospects

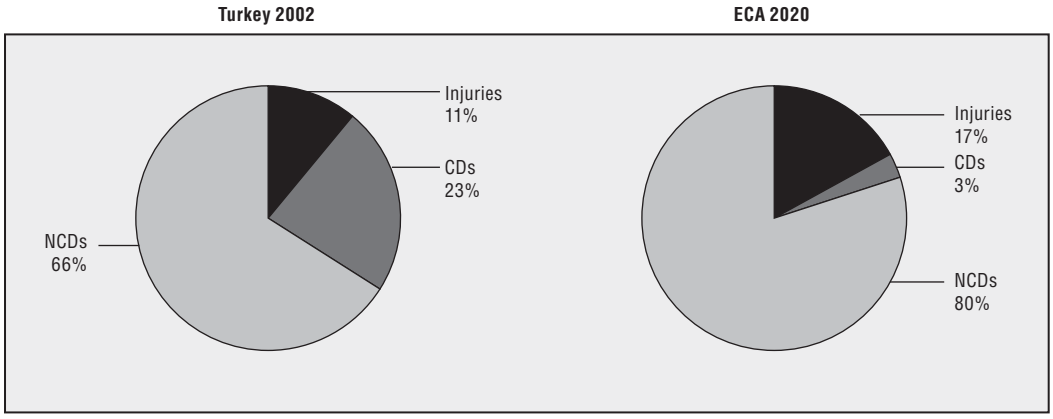
Turkey is facing demographic, epidemiological and nutrition transitions which will have major impacts on population health needs, as well as the ability of Turkey's economy to finance those needs. From the point of view of the ability of the working-age population to support those needs, Turkey is facing more favourable demographic prospects than most other OECD countries over the next 25 years. According to medium-variant, UN population projections, the proportion of the population which is of working age (15-65) will increase from 66% in 2005 to 69% in 2030, meaning that there will be rising numbers of potential contributors to health insurance who are, on average (compared with children and the elderly), relatively low users of health services. Nonetheless, the key question of whether such "population momentum" will be a demographic "benefit" or "curse" is heavily dependent on the country's ability to employ productively and tax this growing segment of its population.

However, while the proportion of the population in the "productive" age ranges is increasing in Turkey, and while the elderly proportion will remain below the 14% of population level found in most other OECD countries in 2005, the proportion of the population which is over 65 will double from over 5% to nearly 11%, placing increasing cost pressures on the health system. There will also be implications for long-term care services – which are outside the scope of this report, but will need to be addressed, perhaps in a separate comprehensive report. The crude death rate, the determinant of an important part of the demand for health care, will increase only modestly in Turkey over the same period, from about 6 per 1 000 population to about 7. The fertility rate, another determinant of part of the demand for health care, is expected to continue to decline, resulting in fewer people in the younger dependent age ranges.

These changing demographics will have important impacts on the underlying burden of disease faced by individuals and the health system. As a result the burden of disease in Turkey will shift significantly away from the 2000 burden (Ministry of Health, 2004), shown here, to one much more in line with that of Europe and central Asia in 2020, as projected by the WHO (Figure 4.1).

Thus, Turkey's health system and health financing will be much more driven by the need to treat non-communicable diseases (NCDs), where effective health promotion and prevention policies are needed. Similarly, the health system's physical infrastructure and human resources will need to adjust as Turkey's disease profile shifts towards that of other upper-income countries. Basic public health policy will also need to deal with difficult cross-sectoral issues such as nutrition, as the burden of disease from over-nutrition and its

Figure 4.1. **The burden of diseases in Turkey, 2002, and in the Europe and central Asia region of the World Bank, 2020**



Note: CDs = communicable diseases; ECA = Europe and central Asia; NCDs = non-communicable diseases.
Source: WHO and Ministry of Health, School of Public Health (2004).

deleterious effects comes to exceed that of malnutrition, which, despite significant progress, is still a problem in parts of Turkey (Akdağ, 2008). Clearly this is an area that also requires careful co-ordination in terms of both medical and consumer education. Turkey's high road accident rate and other economic and social causes of injuries will also need to be contained as this area accounts for an increasing and expensive part of the future disease burden. Handling this dual burden of disease and transition to a non-communicable disease and injury-driven burden of illness is an important public health, delivery system, and health financing challenge.[4]

Macroeconomic prospects

Demographic changes, while important, are unlikely to be as important as other drivers of the demand for health care in Turkey. A recent OECD analysis of rising real public spending on health care across all OECD countries between 1981 and 2002 (OECD, 2006b), indicated that the average increase of public spending on health had been 3.6% per annum. About two-thirds of this annual increase could be attributed to rising GDP per capita, assuming an income elasticity of 1. Over a quarter of the increase could be attributed to a combination of changing medical technology and the so-called "relative price effect", *i.e.,* the tendency for the price of health care to rise more rapidly than general inflation through time because productivity in the health sector tends to rise more slowly than productivity in the economy as a whole. Less than 10% of the annual increase could be attributed to demographic change. Given good prospects for economic growth in Turkey and openness to technological change in health care, it seems likely that Turkey will face similar demand pressures to those in other OECD countries in future years. Over the past decade, only one OECD country (the Czech Republic) has kept health expenditure growth below GDP growth. In fact from 1990-2006, the nominal elasticity of health spending relative to GDP was only 1.07% for Turkey, compared to 1.29% on average for all OECD countries. In other words, over this period, health spending increased annually 7% faster than GDP in Turkey, but 29% faster for all OECD countries. Despite Turkey's greater success in keeping spending increases in line with GDP growth in the recent past, as Turkey completes its transition to universal coverage and continues to substantially expand its delivery capacity, it is likely to face these increased cost pressures endemic to the more mature OECD health systems.

The future macroeconomic picture for Turkey is positive, but there are potential pitfalls that could derail the economy (International Monetary Fund, 2008). The OECD has projected forward an economic growth rate averaging about 5% per year until 2010, which, preliminary projections from the World Bank suggest, is likely to be sustained over the next 25 years. The Turkish Government has projected forward a significantly higher growth rate of over 6% to 2035. These different growth scenarios are used in the actuarial analysis below for attempting to assess the costs and sustainability of Universal Health Insurance coverage.

An important and related question is whether there will be "fiscal space" in the budget for additional government spending on health. That depends not only on the future economic growth rate, but also on borrowing, grants, seignorage policies, and the efficiency of public spending across and within sectors (Heller, 2005). Currently, as shown in Chapter 3 and Annex 3.A1, Turkey spends a large share of its public budget on health, indeed a much higher share than other comparable low- and middle-income countries. Will efficiency gains in health and other public programmes and future growth allow the budget to expand sufficiently to absorbe the increased costs from UHI, technology growth, relative price changes, the demographic, epidemiological, and nutrition transitions, and other government priorities, without endangering the future fiscal sustainability of the Turkish economy? Can the government improve its relatively low revenue collection efforts?[5] How will Turkey balance competing demands from other critical sectors with increased health expenditure pressures?[6] Will the non-contributors' share of UHI financing coming from general revenues, remain at the initially proposed notional share of 25% of UHI costs or will it impose an ever-increasing burden on the general government budget as suggested by the policy simulations discussed below? The actuarial analysis below provides some stark early warnings of the need to assure a UHI implementation trajectory firmly grounded in effective expenditure containment policies.

4.4. Assessment of the Health Transformation Programme to date

The assessments of the HTP which follow, are made against the background of the three main goals of health policy set out at the beginning of Chapter 3: *i*) maximising health outcomes and responsiveness to consumers; *ii*) minimising costs, subject to attainment of these outcomes; and *iii*) pursuing equity both in terms of financial protection against unpredictable catastrophic medical care costs, and in terms of access to health services They are also based on the analysis in the preceding chapter.

In many ways, the content of the HTP appears to represent a "textbook" set of reforms for a health system of the type found in Turkey prior to 2003, building on the strengths of the system, yet targeting the weaknesses. That system (like those in many other middle-income and some OECD countries) displayed excessive fragmentation and incomplete health insurance coverage; focused on costly curative hospital-based care; had limited availability of new technologies; encouraged dual physician practice arrangements resulting in significant informal payments and out-of-pocket costs; had limited incentives for efficiency; contained serious inequities in access to care for the poor, near poor, and those in rural areas; and often provided poor-quality care. The HTP/UHI reforms represent a comprehensive blueprint to tackle the main weaknesses of the system.

They also seem to have been designed to build on the strengths of the system, such as the institution of a Green Card scheme for the poor in the previous decade, public specialist services of a reasonable underlying quality in many parts of Turkey, a vibrant private

sector, upward momentum in levels of health status in the population and a government and a Ministry of Health committed to providing access to quality services to the entire population, but especially to the poor and other underserved groups.

The steps taken to implement the HTP appear to have made significant improvements to the performance of the system. On the health insurance side, Green Card coverage was extended to include outpatient services and outpatient prescription drugs in 2005, and SSK enrolees were given access to all hospitals and to private pharmacies in 2004. These changes were associated with a 7.5% increase in Green Card enrolees and a nearly 33% increase in SSK enrolees between 2003 and 2007. They were also associated with sharp increases in both access to hospitals and per capita spending on pharmaceuticals for these groups. The latter was offset to some extent by reductions in pharmaceutical prices. As discussed in the previous chapter, the level of health spending overall, but particularly the public share, increased significantly over much of this period, while out-of-pocket payments for consumers fell. Fortunately, the Government of Turkey was able to accommodate these increases due to Turkey's strong economic growth over this period.

Indeed, both the SSI and the MoH have taken the view that by 2008, most Turkish citizens with significant needs for health care are enjoying reasonable access to services. That is because there are no eligibility barriers to primary care and to emergency hospital care. Moreover, partly because there has been adverse selection in enrolment into *Bağ-Kur* and the Green Card schemes, in addition to some casual or fraudulent use of insurance cards by non-eligibles, most of the population with significant needs has been accessing government-financed health services, even though "formal" enrolment information suggests uncovered groups to be between 10 to 15% of the population.

Meanwhile, the introduction of the performance management system in MoH facilities – which from February 2005 included the former SSK hospitals – together with improvements in consulting facilities, appear to have been associated with a rise in full-time working of specialists in the public sector and a significant rise in hospital activity. The most recent Ministry of Health information suggests that the number of full-time physicians in MoH facilities has increased from 11% in 2003 to 73% in 2008. Considerable outsourcing of support services has been developed in MoH hospitals, and many staff, especially nurses, are now on short-term contracts rather than on civil service appointments.

The new family practice system has been implemented in 23 provinces as of August 2008 and will cover 59 provinces by late 2009. Some 20% of the population had been assigned to family practitioners as their source for basic primary care, a level of coverage that MOH plans to increase to 50% by the first quarter of 2009. Several evaluations of pilot projects are underway, with some preliminary results available on certain outcomes. For example, patient satisfaction has increased in provinces that have implemented the family practice system. Visits to primary health-care facilities have increased by 27% in provinces with the new system compared with 23% in provinces without it. This has been accompanied by a 1% decrease in the number of visits to secondary care facilities in provinces with the family practice system, compared with a 16% increase in hospital visits in other provinces. Hospitals accounted for 58% of all visits before implementation of the family practice system compared with 41% after. Despite suspension of the referral-system penalties, provinces which are implementing family medicine had 51% of their visits in primary care and 49% in secondary care in 2008, and the Ministry of Health expects the primary care percentage to increase to 60% when the new copayment rules are put into

effect. Based on these preliminary evaluations, it appears that the system has shifted utilisation toward primary care and away from secondary care and increased patient satisfaction (Department of Family Medicine; Akdağ, 2008). The effects of the new system on outcomes await the results of the full scale evaluations now in progress. These changes were backed up on the supply side with improvements in the distribution of doctors across geographical areas in Turkey.

On the supply side, the changes outlined above appear to have represented improvements in capacity and productivity – although it is arguable that too much of the expansion of ambulatory services was in the "wrong" place – *i.e.* in hospital outpatient departments. In particular, consultations per physician rose steeply following the introduction of the performance management system and the shift towards full-time working. Thus, improvements in coverage were matched both by rising activity and by the equity-enhancing redistribution of capacity in primary and secondary care. Given that there was almost certainly unmet need in Turkey prior to the reforms, their effect is likely to have been improved access and equity, at least for the groups which had formerly faced barriers to access. Had the improvements in capacity and productivity not taken place, the rising demand for care might have been left unsatisfied because of constraints on human resources and on facilities.

In its early years, the HTP appears to have remained affordable: the increase in health expenditure has been in line with GDP growth. The costs of improvements in access and staff remuneration appear to have been offset, at least partially, by improvements in productivity and reductions in pharmaceutical prices. Public spending on health care rose on average by about 7% per annum between 2003 and 2006 having risen at 10% per annum between 1999 and 2004. The share of total health spending in GDP remained virtually constant between 2003 and 2006 due to strong economic growth whereas it had risen by nearly a percentage point between 1999 and 2003.

4.5. Completing the Health Transformation Programme, 2009-13

The Health Transformation Programme is far from complete in 2008 due to: controversy over the reforms in Parliament and the courts, leading to legislative delays; difficult policy choices, such as on extra billing by private providers and setting budget caps; and the inevitable lags involved in setting up incentive-payment schemes such as DRGs, increasing the capacity of SSI to pay the large numbers of new claims, and training new staff and retraining existing staff.

On the funding side, the parts of the Social Security Bill which dealt with UHI passed Parliament only in April 2008. The Green Card scheme has not yet been fully integrated into the SSI – although plans are in place to integrate it by 2009. Many Turkish citizens, above the level of income defined for Green Card eligibility, work in the informal sector and many do not appear to be registered for or contributing to health insurance. New procedures for means-testing by SSI for both Green Card eligibles and those formerly uninsured are not yet in place. Decisions about co-payment rates await secondary legislation following passage of the UHI bill, although it is envisaged that there will be higher co-payment rates for inappropriate self-referral behaviour including hospital out-patient consultations which are initiated without a referral from a family practitioner. Critical issues concerning the referral system are otherwise still in abeyance – awaiting completion of the Family Practitioner system (*i.e.*, according to the MoH this means 30 000 new family practice physicians trained

and in practice). Similarly, decisions about extra-billing ceilings in private hospitals await implementation of new draft rules limiting extra-billing to 30%. In addition, while the UHI Law states that SSI will implement global budgets with state health-care institutions (MoH and university), it is unclear how SSI will deal with private health-care facilities,. This is critical since spending on private health-care facilities is the fastest-growing component of SSI expenditures, and is likely to generate a deficit for SSI in 2008.

On the delivery side, as discussed above, the family practitioner services have been rolled out in only 23 of Turkey's 81 provinces. Public hospitals have not yet achieved significant autonomy and the purchaser–provider split is not yet fully operational for MoH hospitals. Also, capacity constraints have increased among doctors and nurses, exacerbated by the increased demand from enhanced coverage and a buoyant private, health-care sector in some parts of Turkey. The government has announced that it is planning to increase medical school intake from about 4 500 students per annum to about 6 000 per annum. It has also published new planning regulations, early in 2008, setting standards for new private hospitals and outpatient diagnosis and treatment centres in order to rationalise joint public and private sector capacity.

The new payment system envisaged in the HTP – to have money follow patients according to DRGs – is not yet operational. The Ministry of Health is still deciding the budgets and monthly payments for MoH hospitals, including the revolving-fund revenues which flow from SSI to MoH hospitals. SSI funds are disbursed to MoH hospitals monthly, based on MoH decisions, rather than in accordance with bills submitted for services rendered. In addition, the ministry is still paying part of the salaries of hospital staff in public hospitals and the funds required for primary care and public health services, including the new family practitioner projects. The introduction of DRGs for hospital care is still at a design stage, albeit ready to be tested – with exploratory projects in 47 hospitals. Hospital performance standards have increased hospital activity; yet, the incentives in the performance-based supplementary payment system (see Box 2.1 above) need to be implemented in line with those in the proposed DRG system, and complement those implicit in the budget caps for public hospitals in order to improve, simultaneously, physician and institutional productivity, enhance allocative and technical efficiency, and assure macro efficiency by controlling overall costs by discouraging the provision of unnecessary services.

Finally, the changes in governance envisaged by the HTP are far from complete. The SSI has not yet acquired the capacity to process all claims adequately or to design and implement innovative incentive-based payment systems. The Ministry of Health is still deeply involved in budgeting for and providing primary and secondary services rather than assuming a steering/stewardship role.

Thus, there are still a large number of key policy decisions awaiting final specification and some of these will take many years (*e.g.* increasing the supply of physicians). These ultimately will determine the effectiveness, affordability and sustainability of UHI in improving health outcomes, financial protection, and consumer responsiveness for the Turkish population. The key implementation decision areas for completion of the HTP are discussed in what follows.

Financing, basic benefit package and purchasing

There are a large number of financing issues and policies contained in the HTP that either await implementation and/or further specificity in the near future. These include:

informal-sector enrolment and new targeting mechanisms for non-contributors; Green Card targeting; the scope of the government contribution to UHI, extensiveness of the basic benefit package (BBP); user fees and informal payments; the scope of extra billing by private providers; the role of the private sector in health financing; development, testing and implementation of incentive-based payment systems such as DRGs and bundled payments for outpatient care, and other potential risk-sharing arrangements; the role and scope of global expenditure caps; financing of medical education; and pharmaceutical policies. Each of these areas is discussed in turn.

Informal-sector workers

Informal-sector workers account for some 22% of employment and 25% of the workforce does not report income for tax purposes (OECD, 2008a, Chapter 2). Some will be young and healthy and may see few reasons to make contributions. This poses the greatest difficulty for both voluntary and mandatory insurance systems. Identifying such workers and then having them pay their premium contributions is a difficult problem that all countries face. Some countries like Thailand made the decision to cover them in the same way they cover the poor with no contributions required. Other countries provide strong incentives for them to enrol by eliminating all price subsidies at public facilities, thereby providing very strong negative financial incentives for them to voluntarily enrol and contribute. It appears that under the new UHI in Turkey, Turkish citizens will not be required to provide any proof of contributions to health insurance for access to primary care, but that non-contributors would indeed be liable for charges if they sought non-emergency hospital care. The SSI policy is to register non-contributors when they seek hospital care and to pursue the question of contributions, or alternatively, eligibility for the Green Card, thereafter. However, so long as informal-sector workers do not approach public hospitals they could remain unregistered. Other countries have dealt with this problem by a variety of demand-side, supply-side, and administrative arrangements. Demand-side arrangements include: providing premium subsidies; eliminating price subsidies at public facilities by setting charges to reflect the full costs of services; and, allowing private sector facilities to charge whatever they want. Supply-side subsidies and administrative arrangements include: having an attractive benefit package; enrolling individuals through unions, trade associations, and other community organisations; and improving confidence in the government's programmes by assuring good governance and eliminating corruption.[7]

Identifying and targeting the poor

Identifying and targeting the poor is another major administrative issue. From 2003-06, Green Card coverage increased from 25% of those in the lowest income decile to 54%. The community targeting scheme, where the centrally appointed District Officers (*Kaymakams*) have the authority to distribute the cards, appears to work quite well, as 83% of the benefits from the Green Card programme accrued to those in the bottom two deciles of the income distribution (Aran and Hentschel, forthcoming). Meanwhile, the proxy means test (PMT) system for targeting the conditional cash transfers has been found to be extremely well targeted–but to a much smaller, more narrow group of beneficiaries. Switching over from the existing Green Card to the PMT system would involve very considerable logistical difficulties, requiring *a)* a substantial re-training of existing Green Card staff; *b)* moving staff from one organisation (Green Cards at Ministry of Health) to another (PMT at the Social Solidarity Fund); as well as *c)* ensuring computerisation and

Internet connectivity (as the PMT relies on an internet database). Turkey should weigh carefully the costs and benefits of retaining the Green Card or moving to the PMT mechanism as a way to target UHI exemptions.

The scope of the government contribution to UHI

The scope of the government contribution to UHI should be kept under careful review. One of the main economic aims of the Turkish authorities is to increase formality in the Turkish workforce with a view to promoting growth and productivity. A contributory policy is to reduce the tax wedge on labour income which is high in Turkey and which discourages employment in the formal sector. This policy has been supported by the OECD's recent *Economic Survey of Turkey* (OECD, 2008b) and a separate analysis in the 2008 *Employment Outlook* (OECD, 2008a). Contributions to health insurance constitute part of that tax wedge. While the initial intention may have been to keep the general revenue share of the cost of UHI to about 25%, there exists an option to limit the growth rate of contributions, or even to lower them, by substituting additional general revenues for health insurance contributions. The authorities need to balance carefully the efficiency and equity impacts of these alternative tax/revenue sources.

Most OECD and developing countries fund their UHI programmes from combinations of general revenues and payroll-based taxes. Estonia is perhaps the only country in the world to fund its social health insurance system almost exclusively from payroll taxes. Many OECD countries fund their UHI programmes mainly by general revenues. Other OECD countries which have Bismarckian health-care systems, like that of Turkey, including France and Germany, have altered the balance of funding of their public systems from payroll-based health contributions towards general revenues – partly to reduce the tax burdens on employers and employees. That seems to be happening *de facto* in Turkey to some extent because of growing social security deficits which are funded from general revenues. Clearly, it would be desirable not to make any such switch a source of open-ended tax liability. Thus, there is a need to assure that future expenditure liabilities are both affordable and sustainable and do not become an unlimited contingent liability on the government budget. Two of the critical factors that will drive such a *de facto* shift are future growth in the wage base and health spending increases in excess of future wage growth. As shown below, spending efficiency will be a critical determinant of a potential major shift in the contribution base from individual contributions to general revenues. Further discussions of actuarial solvency and of capping expenditures can be found below.

The extensiveness of the basic benefit package (BBP)

The extensiveness of the BBP is also an important issue for the authorities. The BBP is the key instrument for determining the impacts that UHI will have on health outcomes, financial protection, and consumer responsiveness. While in and of itself not a contentious issue, the extensiveness of the UHI benefit package raises questions about the future affordability of the system. Extensive benefits are certainly a good thing from the point of view of consumer responsiveness and financial protection. In principle, if most services are covered including important preventive and primary care services, allocative efficiency and health outcomes should be enhanced, although it is important to keep in mind that the societal and individual benefits from such risk pooling mechanisms pertain to the financial protection they provide against unpredictable large medical care expenses, not small predictable ones. While many countries have extensive benefit packages, costs are

often limited by various combinations of budget caps, co-payments and supply-side constraints. In Turkey, with the government rapidly attempting to remove some of these constraints, at least in terms of physical infrastructure, equipment, and human resources, the basic benefit package may in some ways represent a blank cheque on future medical consumption. Moreover, as citizens (especially contributors) will view UHI as a contractual agreement between them and the government, the authorities will be under increasing pressure to provide extensive benefits irrespective of costs.

As discussed above, changes in medical technologies have been found to be an important cost-increasing factor in most OECD health systems. While it appears that Turkey has been relatively successful at keeping health expenditures in line with GDP during its implementation of the HTP through prudent purchasing, outsourcing, productivity enhancements, and rapid GDP growth, it will be a major challenge for Turkey to withstand future cost pressures, judging by the experiences of most OECD countries cited above and the medical technology literature as recently summarised in *Disease Control Priorities in Developing Countries* (Weatherall *et al.*, 2006). With a virtually unlimited benefit package and increasing availability of services, the authorities may need to re-evaluate whether they can in effect afford such an open-ended package with few exclusions. Rules for covering new technologies would be an important element of future cost containment and inclusion of criteria concerning cost-effectiveness would be important first steps in limiting this potentially large future contingent liability.

User fees (formal and informal)

User fees (formal and informal) are one of the most contentious and politically charged issues facing all governments. User fees are a source of revenues and a mechanism to prevent inappropriate service use (*e.g.* deal with the moral hazard issue). While the new Social Security Law provides the authorities with the possibility to impose user fees of up to TRL 10 per consultation, detailed policies concerning the circumstances and fee levels have not yet been worked out (although certain SSI-listed chronic diseases would be exempt). Part of the issue relates to the recent shelving of the requirement for patients to follow the referral chain. Because of the perceived insufficient number of first-line primary care providers, the authorities have suspended financial penalties for by-passing the referral system and have suspended the referral target for family practitioners. Also the ability of individuals to self-refer to all hospitals results in routine cases being treated in more expense specialty and teaching hospitals, causing wasted resources and inefficiency. Virtually all OECD countries have copayments on services that tend to be overused, and the global evidence base discussed above shows that many countries use copayments to finance major health coverage expansions.

An increase in copayments per outpatient consultation for non-poor enrollees, set at 5% of average resource use, would directly generate about 0.8% of total UHI financing needs, and would reduce total UHI spending by another 0.5%, resulting in a 1.3% reduction in overall SSI financing needs. A recent study showed that in 2002, some 25% of consumer out-of-pocket payments were informal payments to providers (Tatar *et al.*, 2007). However, formal co-payment requirements, together with the significant increases in remuneration of physicians, should "crowd out" informal payments – patients will resist paying twice. In any event, the authorities should monitor this area to ensure that the high level and equitable distribution of financial protection in Turkey are not compromised.

Extra-billing

Extra-billing is another important issue which has major implications for UHI programme costs, total health-care costs, equity, and financial protection. Currently, extra-billing is allowed under certain narrow circumstances for university hospitals (amenities, being treated by the university faculty) and for private hospitals which under new rules resulting from the new Social Security Law will be able to charge up to an additional 30% of the SSI tariff plus extra charges for amenities. Part of the rationale is to create a level-playing field and allow private hospitals to recoup costs that are paid through the regular Ministry of Health budget as supply-side subsidies to MoH hospitals *(e.g.,* base salaries of staff, some capital costs, land costs, etc.).

However, extra-billing creates an unfair liability on patients and increases private/out-of-pocket patient payments and total health-care costs. The most satisfactory way to deal with the "level-playing field" issue would be to eliminate the supply-side subsidies to public institutions and ensure that the reimbursement levels approximate the full efficient production costs for all hospitals. However, this might have to await the gradual attrition by retirement and resignation of staff employed on civil-service terms and conditions at public hospitals. If the only reason for allowing extra-billing by private hospitals is to compensate for the subsidies to public hospitals, the fairest and most effective way to do that would be to include that extra payment as part of the reimbursements of the SSI since the insuree should receive the same level of insurance coverage whether he/she goes to a public or private hospital. If there is also an issue of better amenities, a set level of amenity standards covered by the base tariff should be established, and all hospitals should be allowed to extra-bill for additional well-defined amenities.

However, public coverage for extra billing of private hospitals to offset salary subsidies to public hospitals would have to be funded – perhaps by raising contribution rates. There is also an issue here of whether Green Card holders should have to make such payments, since they will receive the same benefits package as other insurees (which includes access to private health-care facilities) once they formally join UHI. Thus, on equity, financial protection, and overall cost grounds, the authorities need to consider carefully how they will implement this extra-billing policy and whether the extra-billing should be paid by the insured individuals or by SSI. Elimination of supply side subsidies to public institutions over time may be a more straightforward and efficient way to implement the purchaser-provider split and create a level playing field for the private sector.

The role of private financing

Currently private sector payments account for 28% of health expenditures in Turkey, according to *OECD Health Data*. The role of private financing (beyond the issues of copayments and extra-billing previously discussed) is an important, but often neglected issue. The question of the role of private voluntary health insurance (PVHI) is an important one. A major OECD study has analysed the different roles of private health insurance in OECD countries (Tapay and Colombo, 2004). Now that Turkey has universal coverage and an extensive set of benefits, there would appear to be a limited role for PVHI. That role might include providing complementary insurance to cover: higher standards of amenities than those offered in the basic benefit package; and additional services, such as care in very high-quality specialised private institutions without contracts with SSI. While the role of PVHI will be limited in such a system, good regulation is important both for industry survival and consumer protection. In addition, the authorities will need to consider

carefully whether, as in Canada and several other countries, private insurers should be forbidden to cover the copayments in the public system. International evidence shows that, where possible, consumers will buy private policies to fill in the gaps, particularly coinsurance in public programmes (*e.g.* some 80% of the French population purchases cover from *Mutuelles* to fill in the copayments in the French social health insurance system, while approximately the same per cent of Medicare beneficiaries make similar arrangements in the United States). Unfortunately, by filling in the publicly required copayments, additional costs are imposed on the public insurance system because beneficiaries then face no costs at the point of service and will tend to use more public services. As such coverage is not widespread at this time of transition to universal coverage, it is timely for the authorities to address regulatory policy with respect to PVHI.

Development and implementation of incentive-based payment mechanisms

The HTP contains provisions for the development and implementation of incentive-based payment mechanisms such as DRGs and other bundled-payment schemes. In addition, the performance bonus system utilises a Current Procedure Terminology (CPT)-coded, resource-based relative value scale (RBRVS). DRGs have been under development for some time, and are in the process of being evaluated in 47 hospitals (33 MoH, seven university and seven private). DRG hospital payment systems are widely used in OECD countries and have generally been found to promote efficient use of resources and quality. Nevertheless, DRGs are a fee-for-service payment mechanism, albeit a highly-bundled one, and it is desirable to monitor the cost and quality of the services purchased and to be ready to counter some of the inherent perverse incentives of DRGs, such as DRG creep (reporting of more intensive cases), split admissions, and additional admissions.

It is important that the significant development work done by Tepe-Teknoloji and Hacettepe University be pilot tested, refined, and then implemented by the SSI. Turkey should also consider reforming its largely fee-for-service based outpatient payment systems both to conform to the more innovative bundled prospective outpatient payment systems in use in OECD countries (*e.g.*, the new outpatient prospective-payment systems, modelled on the DRGs, such as the US Medicare programme's Ambulatory Payment Classification – APC – System) and to incorporate the risk-sharing arrangements inherent in most managed care plans. Significant efficiency gains can be achieved by giving service providers strong incentives to reduce unnecessary referrals to specialists, diagnostic tests, and admissions to hospitals. Selective contracting could be an important concomitant to such arrangements. This could be a much more effective way of controlling costs than making small reductions in payment levels for individual services. This would help Turkey address the recent Court challenges to its outpatient bundled payment system.

A related technical issue that needs to be explored with respect to Turkey's current payment mechanisms and the global budgets discussed below, is the need to ensure consistency in the incentives promoted by the performance-based supplementary payment-system in hospitals (Box 2.1, above) and by the DRG payment system for hospitals. For example do the relative weights in the CPT-coded RBRVS contain the same financial treatment incentives as do those in the DRGs and bundled outpatient payments? To what extent are these incentives contrary to those in a global budget cap? Do the payment mechanisms and global budgets promote the same sets of incentives across different types of services (inpatient *versus* outpatient) and providers (MoH, university, and

private)? At the moment, each of these different areas appears to be handled by different agencies in the health system, and the incentive aspects of these different mechanisms all interact.

In conformity with past IMF ceilings global caps have been an important element of the Turkish authorities' policies to control overall health-care costs . Such appear to have played an important role in maintaining the affordability of the HTP in its early years. However, they have only been applied to Ministry of Health hospitals. Article 73 of the new Social Security Law gives the government authority to apply caps to all state hospitals, including university hospitals. Without some global limit, particularly in the presence of a hospital performance bonus system that encourages additional service provision, health-care costs are likely to increase at unacceptably high levels. The topic of cost-containment in the longer term is addressed below. However, it will be important to address cost-containment in the near future, also. Consideration should be given not only to using Article 73 but also to establishing a cap for all SSI expenditures during Stage II of the implementation of the HTP, thereby bringing university and private hospitals as well as outpatient services under the scope of capping. A new World Bank publication "How to Do It: Manuals for Designing and Implementing a Health Care Provider Payment System" provides detailed policy and technical guidance on: implementing case-based payment systems and global budgets for hospitals; and associated contracting, and management information systems for purchasers and providers (Langenbrunner *et al.*, forthcoming).

Financing of medical education

As discussed above, with the large proposed expansion in physician numbers, Turkey needs to have a clear policy on the financing of medical education. Medical education involves both direct costs (salaries of professors and residents and interns) as well as indirect costs (*e.g.* extra tests ordered as part of the educational function) and is also closely tied with the funding of medical research. University hospitals have several outputs: patient care, medical education, and research. There are scale and scope economies with respect to the simultaneous production of these outputs. Currently, several major university hospitals are on the verge of bankruptcy, partly because the revolving-fund payments and other pedagogical sources of financing from the Ministry of Education are insufficient to support medical education, and partly because freedom of choice of hospital by patients is resulting in large numbers of routine patients being treated unnecessarily in these more expensive teaching hospital settings.[8] Also concerns have been expressed about the efficiency of teaching hospitals in Turkey. It may be desirable to address these issues, through a Presidential Commission or national task force with a view to developing clear policies consistent with the goals of expanding a well-trained and state-of-the-art health workforce, of ensuring that university hospitals perform their functions efficiently, and of providing sufficient funding to sustain their operation.

Pharmaceuticals

Pharmaceuticals account for about one-third of total health spending in Turkey. That suggests that any efficiency savings could make a major contribution towards financing of the second stage of the HTP. Under the HTP, Turkey has already taken major steps to reform its pharmaceutical policies. Reimbursement lists of different health insurance funds have been merged into a joint Social Security Institution (SSI) list. The 14 February 2004 decree on setting reference prices for pharmaceuticals based on the cheapest price in the

five EU countries of France, Italy, Spain, Portugal, and Greece, resulted in price reductions of up to 80% in more than 900 pharmaceutical products. Reductions in the VAT in the same year further reduced the costs of pharmaceuticals. Reimbursement decisions are taken by a central commission under SSI. This commission has started using its bargaining power to get lower prices from manufacturers in exchange for including a new drug into the reimbursement list. Generic drugs are reimbursed based on the cheapest option available with patients responsible for the price difference if they choose a more expensive drug. A new system to monitor physician's prescribing behaviour is being developed. Statutory rebates enforced at manufacturer and retail level are an attempt by SSI to "claw back" some of the informal volume rebates that are passed on from manufacturers to wholesalers and retailers in a market with limited shelf space and many equivalent products in the common generic categories. All this has led to a significant slowdown in pharmaceutical expenditure growth in the past two years.

Nevertheless, there is still a significant efficiency reserve in the pharmaceutical sector. Cost-effectiveness criteria are not consistently applied in reimbursement decisions, making the reimbursement list in parts look more generous than in some high-income countries like Germany or Sweden. For example, unlike Turkey, Germany has reimbursement ceilings that cover more than one molecule, when different drugs have been shown to have similar clinical effectiveness and safety. That can bring expensive "me-too" products under the same ceiling as cheaper, older products. Prices for newer generic drugs (those recently introduced after patent expiry) are relatively high compared with the prices found in more competitive markets. Most importantly, Turkish physicians are still ignoring rules of rational prescribing in qualitative and quantitative terms without being held accountable in any way, making physician training in rational drug use an important priority. While SSI has limited its exposure to some extent by introducing reimbursement ceilings for certain drugs, patients are exposed to increasing out-of-pocket payments as a result of financial incentives for providers being aligned in a way that favours prescription and dispensing of more expensive drugs (Çelik and Seiter, 2008).

Delivery system changes

As discussed above, countries which have undertaken successful financing reforms have simultaneously made carefully synchronised delivery system changes. The authorities realised the necessity of such accompanying changes early on, and the HTP was carefully designed to increase capacity and activity for needed increases in access, to improve quality, to enhance allocative and technical efficiency, and to promote an appropriate role for the private sector. Nevertheless, there remains a significant agenda to complete the provision of family practitioner (FP) services and the training of FPs throughout Turkey, to resolve the relationship between FPs and the (separate) local community health services, to increase the number of physicians and nurses and optimise their skill-mix, to implement hospital autonomy and to make best use of private providers within UHI. These issues are discussed in turn, below.

Family practitioners

Clearly, completing the development of the new family practice system throughout Turkey is a key element in the full realisation of the reforms and is essential for realising efficiency gains. As has been mentioned above, the new system had been implemented in 23 provinces as of October 2008. It is planned that the implementation will have been

launched in 59 provinces by the end of 2009 and, according to the MoH, will be generalised to all provinces in Turkey by 2010 – although the inclusion of Istanbul within this timetable will be a challenge because of a shortage of potential FPs in the Province . It can be anticipated that the consultation mix between FPs and hospital outpatient departments will continue to adjust in favour of the former as the FP system is rolled out. However, the full benefits of the FP system on the cost side are unlikely to be realised until the now-deferred referral system is re-established and appropriate copayment incentives are put in place. The authorities take the view, currently, that it will require not only full implementation of the FP system but also reduction of the average patient list from the current level of about 3 000 to about 2 000-2 500, before a mandatory referral system can be established. Indeed, the patient load for FPs seems to be excessive. According to March 2008 data, the number of daily medical examinations per physician is 44 on average (which means approximately 7.5 minutes per clinical examination).[9] Appropriate utilisation could be improved by levying differential co-payments on hospital consultations, with and without a referral.

Future training of family practitioners

The Turkish authorities have identified a need for 25 000 to 30 000 new family practitioners to secure full implementation of the new FP service, which MoH estimates to take 40 000 to 45 000 FPs in total. The announced policy to increase medical school intake by 50%, will not have any impact on services delivered during the next five years because it takes at least six years to train new doctors in Turkey – and to train specialised FPs takes longer. The desired increases in capacity can partly be achieved by re-training of existing GPs. The MoH has implemented a new training programme which involves three stages. First-stage training takes ten days and focuses on adaptation. All FPs are obliged to receive this training. As of March 2007, approximately 11 430 practitioners out of about 25 000 in public service in Turkey had received this training. It is planned to give the second-stage training via distant-training methods. Training will consist of 40 modules and three of them will be given in practice. Depending on the performance of trainees, training as currently planned will take 12 months. This phase of training has not been launched yet. The third stage has not been specified yet. It is planned that the third-stage training be given on a part-time basis by the National Medical Residency Examination and be mainly clinically-based. The authorities may consider looking into other primary care training models in OECD countries to ensure that this module, combining internet-based and clinical training, is optimised.

On the incentive side, the current remuneration system provides strong financial incentives for physicians to train and practice as FPs. Total remuneration (salary, or capitation payments plus bonuses) for an FP is slightly higher than for a GP working in a hospital, and significantly higher than for a GP working in a health centre. Moreover, remuneration for FPs is typically higher in regions with shortages – as it should be in order to address geographic misdistributions – whereas for GPs in hospitals and health centres, it is not. This means that the structure of wages across facilities, modes of practice and geographic areas is conducive to encouraging medical graduates to take up training in family medicine.

Family practitioners and community health services

It is intended, under the HTP, that public-health specialists will continue to operate out of local community health centres while family doctors work out of family health

centres – although the two premises may sometimes be the same. The development of a division of labour between these two important sets of agents will be a necessary condition for the efficient promotion of public health locally. For example, Family Practitioners will be in a good position to inquire opportunistically about the smoking habits of their patients. Brief counselling of smokers by primary care physicians – to encourage the smokers to quit – has been shown to be successful for a minority of patients and to be highly cost-effective. However, many smokers will fail to quit after brief counselling by their physician, or will relapse after an interval. At that point, a referral of the patient to a smoking-cessation clinic organised by the community health centre may be appropriate.

Nurse/physician skill mix

It has been noted above that Turkey reports one of the lowest ratios of practising nurses to practising doctors in the OECD area: 1.4 compared with an OECD average of 3.1 in 2006 It is very questionable as to whether this is a cost-effective skill mix. Also, Turkey appears to have a nurse graduation rate, at 30.7 graduates per 1 000 nurses, which is well below the OECD average of 45.7 in 2005. Yet, with respect to nursing training, unlike physician training, there are currently no plans for any major scaling up. It takes far less time and cost to the public purse to train a nurse than to train a doctor. The authorities might like to consider expanding both the training rate and the clinical role of nurses with a view to scaling up service delivery quickly in a cost-effective manner. Additional nurses could be trained within the timescale envisaged for completing the HTP.

Hospital autonomy

There is a new law, which is still under consideration in Parliament, on hospital autonomy, the intent of which is to gradually give public hospitals more freedom to act efficiently. The draft law proposes the establishment of local Executive Boards to govern public hospitals. It specifies the composition of the Board (experienced civil servants with a range of relevant qualifications), payment of Board members, the powers of the Board (to include hiring and firing of staff, contracting-out of services, including medical services, and the right to sell immovable and movable assets). The granting of autonomy would have to be "earned" on the basis of an assessment of each hospital's performance.

As has been mentioned in the previous chapter, managers in Ministry of Health hospitals are already exercising some new freedoms: to employ contract staff; to use the performance management system to reward staff for performance; and to contract out some services to the private sector, such as catering and cleaning. It has been suggested, in Chapter 3, that these changes have been associated both with higher remuneration of medical staff and gains in productivity. Considerable investments have also been made by the MoH in distance-education programmes that train hospital staff in management. But further efforts are necessary in this area.

Experience in other OECD countries suggests that further "earned" autonomy, as envisaged in the proposed law, is almost certainly necessary to allow public hospitals to compete effectively with private hospitals and to realise the full potential for efficiency gains inherent in the new purchaser/provider split for hospital services in Turkey. However, additional training of managers may well be required to secure the necessary level of management competence to support autonomy. Also, it will be important for adequate information and incentives to be in place – such as completion of the DRG-payment system and of the new contracting arrangements with the SSI. Appropriate hospital information

systems tailored to decentralised decision making are also required. Given that a new form of behaviour must be learned in public hospitals for autonomy to succeed, it is right to allow time for such behaviour not only to be learned but also to be demonstrated. That suggests that dual MoH/autonomy regimes may have to co-exist among public hospitals for some years to come.

The role of the private sector in health-care delivery

The role of the private sector in health-care delivery is a critical issue for access, efficiency, and the future sustainability of the system. Turkey, unlike many other countries, has attempted to create a level-playing field in the sense of allowing private providers to treat, and be reimbursed for, publicly-insured patients. It has also encouraged the contracting-out to the private sector of support services in public hospitals. This has resulted in considerable growth of the private health sector during the past five years.

Despite an espoused policy which is supportive of private sector delivery, the MoH has increased performance bonuses to the extent that some 70% of MoH physicians are now full-time and no longer work in the private sector. Where the new family practitioner system has been established, it has more or less driven out the private sector for primary care in some provinces (*e.g.* Eskişehir). Similarly, the enormous growth in technology in the public sector may in some cases be duplicating existing private sector capacity and is putting further survival pressure on private diagnostic centres. On the other hand, the MoH is increasingly concerned about losing highly trained sub-specialists, who are in short supply, to the private sector, whereby, under the current extra-billing policies and unconstrained patient self-referral, private sector facilities in these shortage areas can pay higher salaries – between 1.5 to 2 times the salary levels in the public sector.

Legislation has now been put into effect to rationalise combined public and private delivery capacity. Nevertheless, given the shortage of skilled medical personnel, especially physicians, the authorities' role toward the private sector appears at times to be somewhat conflicted. While the matrix of policies is generally well designed to promote a vibrant public and private sector collaboration and competition in the longer term, in the medium term, compromises may have to made because of constraints on the rate at which public hospitals can be safely granted autonomy and constraints on the rate at which hospital employees on civil service terms and conditions will dwindle because of retirements and resignations. The government must carefully balance all these concerns. Getting the incentives right and maintaining a level playing field on the provider-payment side are key concomitants for maximising the efficiency of joint public-private sector delivery capacity.

Governance and administration

There are a number of major governance and administrative issues concerning the MoH itself and other relevant government agencies such as the Ministry of Education and SSI that still need to be addressed. Some of these issues result from the fact that the changes in health system roles envisaged in the HTP are still in their initial stages. The MoH has not progressed very far in moving away from its role as a financer and provider of servicers, and the impetus for the SSI to take over fully its designated role as the payer for UHI is being attenuated. The SSI needs to enhance its capacities both in terms of its operational claims payment functions and as a policy-making body concerned with issues such as provider-payment reforms and how best to forecast the solvency and sustainability of UHI.

As has been mentioned above, the relationships and roles among the MoH, the Ministry of Education, the SSI, and the medical professional groups also require more clarity, particularly in the light of the proposed major expansions in the health workforce and what appears to be lack of a clear policy on the funding of medical education and medical research.

The final section of this chapter turns to the long-term issues that will challenge the Turkish health system once the HTP/UHI reforms have been completed.

4.6. Longer term issues facing the Turkish health system

In the longer term, when all Turkish citizens have access to health insurance and the system is fully modernised, some old challenges will remain and some new ones are likely to emerge. OECD countries which have reached the milestone of UHI, find invariably that they are still left with challenges concerning the prevention of disease, the full realisation of equity in access to services, containment of public and overall costs, long-term fiscal sustainability and the maximisation of efficiency.

Public health challenges

Some of the public health challenges alluded to in Chapter 3, are likely to persist or, in some cases, to worsen. Recent measures to improve the average educational attainment of children, by extending the period of compulsory education, will only gradually work their way through the population. Ingrained habits such as smoking are likely to be resistant to rapid change. Technological and lifestyle changes which encourage unhealthy diets and reduction in physical activity in the population, which in turn trigger obesity and chronic diseases, are likely to continue.

That suggests that inter-sectoral, prevention policies (across ministries) will be important, not only for improving health status in Turkey but also for reducing pressure on health expenditure. For example, the evidence cited in Chapter 3 shows that educational status plays a very important role in determining health status. That suggests that the Ministry of Health has a joint interest with the Ministry of Education in promoting higher levels of education, and higher levels of effectiveness in educational spending in Turkey, especially among girls. There are potential health gains and potential future savings in health expenditure to be added to the economic and cultural benefits which can be attributed to additional educational attainment.

Intersectoral policies are also required to tackle Turkey's growing disease burdens associated with poor lifestyles.[10] In the case of smoking, there is a wealth of experience in many countries of developing cost-effective, cross-sectoral policies to reduce tobacco smoking and ample evidence that policies based on that body of knowledge have been used successfully to reduce smoking rates in many countries, sometimes dramatically.

Geographical inequities in access to services

Experience in other OECD countries suggests that geographical inequities in access to preventive and curative health services across Turkey are likely to persist even after the introduction of Universal Health Insurance. That is partly because historical inequities in the geographical distribution of the human and physical resources required for health care can remain in place for many years after the introduction of UHI. Such inequities are often perpetuated by the preferences that health-care professionals have for working in

economically, physically and socially attractive areas as opposed to, say, poor, remote areas or depressed, industrial areas. Extra-billing and dual (public-private) practice rules may exacerbate access inequities for disadvantaged groups and reduce equity, particularly between wealthier and underserved areas. Physicians and other health professionals will be motivated when taking up practice not only by the clinical load that a job entails and by the *net* income they can earn (after allowing, for example, for local variations in the cost of living), but also by many other factors such as housing, the lifestyle they can enjoy out-of hours, the quality of the local schools (if they have children), and job opportunities for their partners and opportunities for professional enrichment.

Continued attention to the pursuit of geographical equity in access to health services in Turkey is desirable, given the country's size and geographical diversity. On the demand side, careful monitoring of the flows of funds will be required, as money fully begins to follow patients, particularly in underserved areas. If such flows, after reimbursement formulae adjustments for appropriate geographic needs factors, still result in serious inequities, then the authorities will need to consider either further adjustments to the reimbursement formulae and/or direct geographic subsidies. An important step in such policy formulation would be to develop targets for equitable public spending on health care across different regions in Turkey and to aim to bring public spending gradually into line with these targets. What level of public spending in each region would provide equal treatment for equal need for health care across Turkey? Several OECD countries with mainly tax-funded financing of health care have established weighted capitation targets for steering the allocation of public resources for health care across geographical areas and some have gradually brought spending into line with these benchmarks (see, for example, Department of Health, England, 2005). Appropriate targets are identified with the help of formulae which adjust the crude population in an area by weighting it, typically, by the age-structure of the population (for age-related need), by indicators such as age-standardised mortality and socio-economic status (for additional need) and by measures of unavoidable variations in the cost of providing care across geographical areas (to allow for geographical price and wage variations). The Ministry of Health could be charged with developing such targets for regional UHI health spending in Turkey and the SSI with bringing geographical spending gradually into line with such targets over a specified period *e.g.* 10 or 20 years.[11]

On the supply side, an important step would be to develop further Turkey's policies for encouraging health-care professionals to practice in areas where there are shortages. It has already been noted above that considerable improvements in Turkey's geographical distribution of physicians have been achieved under the HTP, albeit judged against crude, rather than weighted, capitation benchmarks. The OECD has published a Working Paper on the supply of physician services which addresses the question of the geographical distribution of physicians (OECD, 2006b). It identified a number of policies that have been adopted with some success in OECD countries to improve the distribution. They include: increasing overall numbers of physicians (but it is possible to reach saturation in some areas without eliminating shortages in other areas); using educational initiatives (including placing medical schools in shortage areas, selecting students who have grown up in such areas, and modifying the curriculum to expose students to experience of practice in such areas); using educational funding initiatives (such as providing scholarships or loans for medical education conditional on graduates taking up practice in a shortage area for a number of years); regulatory policies (such as restricting entry to practice in surplus areas and making the granting of a licence conditional on taking up

practice in shortage areas); and financial policies (such as raising remuneration or providing additional practice grants for practitioners in shortage areas).

Clearly, the financial policies mentioned here should complement the wage and price elements of the demand-side funding polices, mentioned above. In Turkey's case, there appear to be shortages (at least of GPs and FPs) in the East of the country and in Istanbul. The former appears to be related to economic weakness. The latter may be related to economic strength – which affects the unavoidable cost of living in big cities, of accommodation and of setting up a practice. In both types of areas, for quite different reasons, it may be necessary to pay relatively more for physician services and to adjust relative public funding allocations accordingly, to eliminate shortages and to ensure that patients throughout Turkey obtain equitable access to health care. This will almost certainly have implications for differentiating DRG rates and bundled outpatient payments geographically in Turkey. Many countries differentiate DRGs for geographical reasons, including France which pays a supplement of 7% in Paris-Île de France and a supplement as high as 30% on the Island of Réunion, on grounds of cost differences.

Cost-containment, the appropriate level of public and total spending on health care and fiscal sustainability

The new Turkish health system with universal coverage, a generous benefit package, fee-for-service (or DRG) incentives, and an expanded physical and human health infrastructure will mirror other OECD countries in terms of having to deal with persistent cost-containment pressures. Moreover, the very extensive basic benefits package available to the entire population will not constrain population expectations. There will be few financial barriers to access – the price of services will be highly subsidised, even if appropriate co-payments are required. Over time, cost-increasing technological change will add not only to the effectiveness of services that can be offered to existing patients but will also extend the range of diseases and patients for whom effective medical care can be offered. All of this will mean high and rising expectations and demand. Meanwhile, on the supply side, growing numbers of physicians will find many new opportunities to prescribe improved drugs, order newly available diagnostic services, and to refer patients to higher levels of care. And the payment of hospitals by DRGs – a bundled form of fee-for-service – along with the potential for extra-billing for private hospitals will make hospital providers eager to expand services. Any rise in GDP will be double-edged. It will help to add to the fiscal capacity to fund higher public spending on health. But it will also raise patient expectations and, more subtly, help to generate an adverse relative price effect.

These characteristics of the new Turkish health system will make it important not only to build into the system cost-containment "brakes" for public and perhaps overall spending on health care but also to use them firmly and regularly. The main cost-containment "brakes" available to Turkish policy-makers include: "hard" global caps on all public spending on health care including SSI payments to private hospitals – to be applied, for example, by the Treasury to the health budget of the SSI; suitable levels of co-payments for patients accessing services; control on the number of physicians in Turkey once an "appropriate" level has been reached; and, of course, continual improvements in micro-economic efficiency – a topic dealt with in the next section. Policy-makers also need to consider additional tougher risk-sharing arrangements including policies such as penalising hospital physician groups for overrunning their prospectively agreed-upon hospital budgets (International Monetary Fund, 2007). As discussed above, despite Turkey's

apparent success in keeping expenditures more or less in line with its significant economic growth during the past five years (Akdağ, 2008), both the OECD experiences and global evidence, cited above, suggest that a mature modern health system with universal coverage of an extensive benefit package and with widespread availability of the latest technologies, the situation that Turkey is rapidly approaching, will face serious expenditure pressures. Box 4.1 provides some rather stark projections of the potential unsustainability of such a system unless a combination of strong cost-containment measures, both on the demand and supply sides is adopted.

Virtually all OECD countries (except the United States which is currently spending some USD 7 000 per person and over 16% of its GDP on health) cap public spending on health in one way or another. Sometimes this takes the form of specific caps as in Germany and certain Canadian provinces (International Monetary Fund, 2007) and in other cases excess expenditures are offset through continually declining fees, as in Japan. Turkey has experience with caps for public hospitals and, as has been mentioned above, needs to apply

Box 4.1. **Actuarial analysis of alternative growth paths for health expenditure, 2008-33**

Without cost-containment measures, efficient levels of health spending are not likely to be achieved under UHI. The following actuarial analysis, which has been carried out in conjunction with experts in SSI, Treasury and SPO (see Mays *et al*., forthcoming), presents alternative "cost containment" and "non-cost containment" scenarios for total and public health spending in Turkey, 2008-33. The two scenarios presented here differ mainly because of alternative assumptions about the excess rate of growth of health expenditure over GDP resulting from varying degrees of cost containment. The cost containment scenario assumes that Turkey will continue to control health expenditure growth as it has done in the past – with the annual percentage growth in health expenditure exceeding the annual percentage growth of GDP by some 7% over the 25 year projection period. The non- cost-containment scenario assumes that Turkey will start to behave like other OECD countries which have largely achieved universal coverage, where the percentage growth in health expenditure exceeds the percentage growth in GDP by 29% per year. Both scenarios also take explicit account of population aging. Under the cost-containment scenario, health spending would only increase 1.09 percentage points a year faster than GDP. Under the non-cost-containment scenario, health spending would increase 2.41 percentage points per year faster than GDP. Table 4.2 illustrates the differential health expenditure and fiscal impacts of the two scenarios.

The differences are rather stark. *With* cost-containment measures, overall health spending would only increase by 1.5 percentage points from 5.9% of GDP in 2011 to 7.4% by 2033. SSI health spending as a share of GDP would increase by 0.9 percentage point from 3.6 to 4.5%. The general revenue contribution would increase from 1.2% of GDP to 2.1%, and the general revenue share of SSI would increase from 33% to 46%, a significant but perhaps not unsustainably large increase. *Without* cost-containment measures a different picture emerges: health spending would increase by 3.8 percentage points from 5.9% of GDP in the base year to 9.7% in 2033. SSI health spending as a share of GDP would increase by 2.4 percentage points from 3.6% to 6.0% of GDP. More problematically, the general revenue contribution would increase from 1.2% of GDP to 3.5% of GDP, and the general revenue share of all SSI revenues would increase from 33% to 60% (assuming fixed contribution rates and wages growing in line with GDP).

Box 4.1. **Actuarial analysis of alternative growth paths for health expenditure, 2008-33** *(cont.)*

To put this in an affordability context, without cost containment would the authorities be able to reallocate over 2 percentage points of central government spending as a share of GDP from other areas of government spending to health care? As central government spending in Turkey is currently slightly more than 20% of GDP, would the authorities be able to reallocate 10% more of the budget to health with a consequent reduction of 10% for other critical public spending priorities such as infrastructure and education? Alternatively, would Turkey be able to increase its revenue to GDP ratio by an additional 2 percentage points (also, roughly, a 10% increase) per year to accommodate such potential future health expenditure increases? While these figures are rough, they do provide an indication of the importance of controlling health expenditures as a key concomitant of having UHI. The cost containment "brakes" which could bring about such control of health expenditures, have been discussed in the paragraph above this box.

Table 4.2. **Alternative cost scenarios under UHI**

	Total health expenditure as % of GDP	Public spending on health as % of GDP	SSI health spending as % of GDP	SSI general revenue share as % of GDP	SSI general revenue as a share of all SSI revenue
Cost-containment scenario					
2011	5.9	4.6	3.6	1.2	32.9
2033	7.4	5.7	4.5	2.1	46.3
Non-cost-containment scenario					
2011	5.9	4.6	3.6	1.2	33.4
2033	9.7	7.6	6.0	3.5	59.5

Source: Mays *et al.* (forthcoming).

them to public spending in private hospitals, also, particularly as some of the most recent spending information shows the largest increases coming from private hospital services.

Many OECD countries also manage the number of admissions to medical schools or to post-graduate medical training with a view – among other things – to controlling costs indirectly. Deciding on the "right" growth path for the number of physicians through time in Turkey will be an important and difficult decision. The HTP has highlighted the scarcity of physicians in Turkey, now at about 1.5 per 1 000. As has been mentioned above, the government has decided to raise the medical student intake from about 4 500 to about 6 000 per annum which is likely to raise the graduation rate per 1 000 physicians above that of any other country in the OECD area. An analysis of the age structure of the physician workforce indicates little expected attrition due to retirement in the next 20 years. Half of doctors are aged under 35. Hence, the existing rate of expansion in the physician workforce (see Chapter 3) will accelerate, other things being equal, from six years onwards.

Clearly, it is right to increase physician numbers when services are required to expand to meet unmet needs or to raise quality because of the implementation of policies such as UHI, and the establishment of family practitioner services. But at some stage, these requirements will be met and diminishing returns will set in. At that point, supplier-induced demand may become a problem rather than a blessing. Meanwhile, there is evidence that increasing physician density in health systems that pay by fee-for-service raises health expenditure, other things being equal (OECD, 2006c). Also, it may be

significant that in other OECD countries with Bismarckian health systems, there seems to be some correlation between doctor density and the health expenditure share of GDP.

In Turkey, if a significant share of new medical school graduates becomes family practitioners, much of the increased medical school enrolment will be absorbed to address shortages in family medicine, which will allow an effective referral system to be established. In that case, supplier-induced demand may be benign rather than perverse, particularly if coupled with effective referral and risk-sharing requirements. For this reason, it is crucial that the MoH ensures that capacity and incentives for specialising in family medicine are strong.

Productivity and microeconomic efficiency

Continuous productivity and efficiency improvements will be required if the new Turkish health system is to deliver improving quality of health care at an acceptable cost – especially an acceptable public cost. As mentioned above, gains in microeconomic efficiency can make a crucial contribution to finding the "appropriate" level of health spending. It seems certain that even if the main structural changes envisaged in the HTP are completed by 2013, a considerable agenda will remain for delivering the efficiency improvements envisaged in the programme.

Active purchasing by the SSI

As the dominant purchaser of health services in the new Turkish health system, the SSI will be in a strong position to shape both the quality and cost of health services. It will be important for the SSI to continue to acquire the management skills to exercise that function. SSI management capacity will be particularly important in relation to: processing and analysis of claims; undertaking of actuarial analyses and economic modelling; and developing, testing and implementing incentive-based payment systems.

Family practitioners

Although FPs may serve the whole population by 2013, the list sizes will still be around 3 000 at best. To allow an effective referral system to be established, it may require further expansion of FP numbers and a rise in the range and quality of services provided in family practice centres. At that point, it might be appropriate to introduce the tougher risk-sharing approaches which are characteristic of many managed-care arrangements in the United States. In addition to re-introducing negative incentives for family practitioners for excessive referrals, consideration might be given to allowing primary care physicians to share in savings from unnecessary prescribing, diagnostic tests and referrals. A further step would be to introduce hospital and pharmaceutical budget-holding for FPs.

Hospitals

Although the contracting system between the SSI and hospitals with payment by DRGs is likely to be in place by 2013, it is unlikely that all hospitals will have achieved autonomy by then. Those that have achieved autonomy may still be learning the skills and behaviour that will be required to operate successfully with more freedom in a more competitive environment. Many hospital staff may remain on civil-service contracts for some years to come. Given that the scope for market competition may remain limited in Turkey for some years to come, especially in areas where the population cannot support more than one hospital, it may be desirable to introduce benchmark or yardstick competition between hospitals.[12] That will be facilitated when the new DRG payment

system is in place – but it will also be desirable to develop better indicators of the clinical quality of care and of patient satisfaction. The authorities should also tackle the low hospital occupancy rates, through payment incentives, and effective planning.

Information technology

Some of the steps that Turkey is already taking to develop IT and eHealth Systems under the HTP have been described in Chapter 2, above. However, there is a significant need for Turkey to continue these efforts and to implement the needed information systems for its reforms at all levels including in hospitals and physician practices. Data for decision making and effective monitoring and evaluation are critical and often neglected concomitants of any serious reform effort. There is widespread agreement that IT offers great potential for enabling improvements in the efficiency of health-care delivery. Major areas for the application of IT include: storing, managing and sharing data (especially clinical records); informing and supporting clinical decision making; and delivering expert professional and clinical care remotely. A particular medium-term goal in many OECD countries is to establish a national electronic health record for each insured individual which can be accessed by health-care professionals on all occasions that care is sought. There are many commercial interests already eager to offer hardware and software in all three areas. In addition, several OECD governments have issued nation-wide strategies, set targets and established co-ordination bodies aimed at developing health information infrastructures for eHealth. For example, the UK launched the "National Programme for Information Technology in the National Health Service" in 2002 and Canada established "Health Infoway" in 2001 to foster and accelerate the development and adoption of electronic health information systems. More recently, in 2004, Australia established a National eHealth Transition Authority team, responsible for a new national health information strategy. The IT/ehealth agenda is moving at a different pace both across countries and within countries and according to different applications. Levels of national investments also vary widely across OECD countries. The United Kingdom has been reported to be spending over EUR 15 billion on computerising the National Health Service, while funding agreements between the Minister of Health and Canada Infoway amounted to CAD 1.6 billion by 2007. However, national programmes, strategies and investment approaches taken are only part of the picture. In a significant number of countries, local jurisdictions are carrying the highest burden. The result is the emergence of distinct "local" IT/ehealth agendas and strategies that reflect local priorities and constraints in some countries.

An extensive review of the literature on applications of IT in healthcare (Car *et al.*, 2008), has suggested that there is a vast gulf between the potential advantages associated with eHealth applications and the actual empirically demonstrable benefits. There is a lack of evaluation evidence and many of the studies which do show benefits tend to focus on integrated systems, such as Kaiser Permanente and the Veterans Health Administration in the United States (Garrido *et al.*, 2005; Evans *et al.*, 2006). Where experience has been disappointing, there is a "general consensus" that organisational issues and human factors are at the root of the problems (Car *et al.*, 2008). That is to say, the potential of technological solutions is often not realised because the applications have not been designed with sufficient understanding of the users, their interactions and their limitations.

A tentative interim conclusion is that many programmes are progressing more on the basis of potential cost-avoidance (*i.e.* on the prospects of not incurring future costs) and on the basis of anticipated improvements in the quality of care and patient safety, rather than

on the basis of reducing current costs (cost-savings). Many eHealth investments may prove to be cost-increasing rather than cost-saving – although the additional benefits may well outweigh the additional costs.[13]

Pharmaceutical consumption

Pharmaceutical expenditure accounts for some one third of total health expenditure in Turkey. Moreover, it is likely to grow faster than overall health expenditure (as observed in almost all OECD countries over the past 20 years); reasons are:

- Innovation (new, effective but very expensive drugs replacing older, cheaper treatments or addressing conditions that were untreatable so far).
- Improved access to health care, more physicians – leading to a higher rate of discovery of existing conditions such as diabetes and high blood pressure that require drug treatment.
- Growing incidence of chronic diseases, caused by lifestyle factors and aging populations and requiring long-term medication.

That suggests that efforts to improve the rationality of prescribing and to lower the price paid for drugs are particularly necessary. Suggestions for improving efficiency include: more extensive use of the pharmaceutical cost-management toolbox, with a focus on 1) creating competition in the generic drugs market (a role model is Germany, where the patient copayment is waived for the cheapest generics); 2) introduction of binding physician guidelines for rational use of medicines linked to a solid monitoring system, feedback and financial incentives; and 3) expert support for the Reimbursement Commission and increased transparency to ensure that assessment of the cost-effectiveness of drugs plays a major role in reimbursement decisions.

Health technology assessment

The last suggestion, above, for pharmaceuticals, can be generalised: Turkey needs to develop a capacity to deploy health technology assessments and cost-effectiveness evaluations in decisions about the funding and management of health care. It may not be necessary for Turkey, itself, to develop the capacity to undertake original clinical and cost-effectiveness studies across the whole range of health technologies. There is now a growing body of international literature on evidence-based medicine and on health technology assessments which is openly accessible everywhere. However, Turkey may need to develop its existing capacity to access that evidence and to adapt and interpret it to Turkish circumstances. The National Institute for Clinical Excellence (NICE) in the United Kingdom may be a useful model for Turkey to consider in making coverage decisions regarding new technologies (Miners *et al.*, 2005).

4.7. Conclusions and key suggestions for the future

This section draws out some conclusions from the report above and makes some key suggestions for the future (Box 4.2).

Preliminary indications are that the HTP has been successful

The Health Transformation Programme in many ways reflects "good practice" in the development and implementation of a major health sector reform including UHI coverage in an OECD country. Strong government commitment and leadership along with major

financing reforms aided by strong economic growth have been complemented by sequential delivery system reforms. While it is too early to evaluate the impacts of the HTP on all aspects of health status, financial protection, and consumer satisfaction, the preliminary indications from the available data suggest that there has been important progress in all three areas. Turkey is closing the performance gap with other OECD countries and, on a number of measures including overall costs, performs well in relation to other comparable upper middle-income countries. There may be much that other countries can learn from the recent health reforms in Turkey.

But there remain both old and new challenges in the Turkish health system

However, some old challenges remain and some new ones have been created. The most important remaining challenge which appears to face the health system in Turkey in 2008 is how to improve health status further – to bring it up to the average level in other upper middle-income countries and to continue these improvements in an affordable manner in light of the demographic, epidemiological and nutrition transitions. A related challenge will be how to do this while maintaining the sustainability of public spending on health. Because of the design of the new health system in Turkey, there appears to be a high risk of cost-containment crises in the years to come, potentially exacerbated by downturns in the rate of future economic growth. What is needed to meet this challenge, is policies which will: allow control to be maintained over the rate of growth of health expenditure; encourage further improvements in efficiency; continue progress towards equity in access; and assure continued high levels of financial protection. Another challenge will be to raise sufficient revenues to assure the financial solvency of UHI.

Control should be maintained over the rate of growth of health expenditure

Turkey has a good history of cost-containment in health care, but the new health system – which can no longer rely on limiting access to services – has a potential to grow more rapidly. Hence, it will be desirable, in the future, to maintain a hard cap on total public spending on health by the SSI, to allow the government to maintain control over total public spending on health, including payments to private providers. This cap should embrace all public spending on primary health care and on hospitals, including private hospitals. It will imply control either of volumes of health care and/or of prices and will require active purchasing by the SSI and appropriate evolution of the performance management system.

In addition, when family practitioner services are extended to the whole country, it will be desirable to implement co-payments for visits to hospital outpatient departments without a referral from a family practitioner and to re-instate the family practitioner reimbursement penalty for excessive referrals. Such copayments should also be implemented for inappropriate self-referrals to higher level hospitals. These measures should allow GP services to be withdrawn – or partially withdrawn – from hospital outpatient departments and will reduce the pressures on teaching hospitals. Another important way to contain costs will be to pursue further reductions in pharmaceutical prices and further rationalisation in the consumption of drugs – which account for some one-third of health spending.

In the medium to longer term, after necessary expansion of physician numbers has been completed, it will be important to reduce once more, and to subsequently control, the number of graduates entering the medical profession. As has been indicated above, there is evidence that health spending is positively associated with doctor numbers in health systems like that of Turkey.

Further improvements in efficiency will be needed

To encourage improvements in efficiency, which can aid cost containment as well as improve value for money, the authorities should press on with completion of Stage 2 of the Health Transformation Programme during the next five years. In primary care, they should continue to roll out the new family practitioner services and continue to develop community preventive services alongside them. Although additional family practitioners may add to cost pressures in the short term, they should help to improve efficiency in the medium to longer term by reducing the load on hospital outpatient departments.

In secondary care, it will be important to complete the transfer of purchasing of services to the SSI, when its management capacity is appropriate to the task, and when the DRG and bundled-outpatient payment reforms are sufficiently advanced. At the same time, it will be desirable to reform the performance management system in hospitals to ensure that it is consistent with the payment reforms and that it rewards efficiency and unit cost savings as well as volume and quality. It will also be desirable to persist with the policies which give hospitals more autonomy – provided that they display the management capacity to handle it.

More generally, it will be important to invest in: better information and IT; health technology assessment; and the size and skills of the nursing workforce. There are some important gaps in the measurement of the quality of care and in the ability to monitor and project health expenditure changes and to evaluate changes in technology. Also, judging by experience in other OECD countries, there seems to be ample scope for nurses to play a bigger role in support of doctors in Turkey.

Further progress towards equity in access is required

There is potential to raise average health status in Turkey by making further improvements in equity of access to health care, particularly in the geographical dimension. The new health system will help to improve equity of access because money will follow the patient. However, action will be needed on the supply side to strengthen the capacity of the system in the East of the country and in Istanbul. Such action could be guided by appropriate "needs" adjustments in the DRG and outpatient bundled payment rates, the development of weighted capitation approaches for regional, public spending on health care and by stronger financial incentives to attract professional health workers to underserved areas.

There is a need to increase revenue raising

It will be important for the SSI to pursue ways to increase registration of the population for health insurance purposes and to collect contributions. However, given the policies of the authorities to reduce the informal sector in Turkey, it will be desirable to keep the share of public spending on health which is raised from contributions under review – because contributions raise the "tax wedge" on labour and thereby encourage informality. It may be easier to raise general revenues if informality declines. There are clearly possibilities for revenue enhancements through both improved tax administration and reforms in the existing taxes.

It will be important to address wider public health issues

It is unlikely that better health care, alone, will enable Turkey to match similar countries in health status. There is strong evidence that other, non-medical determinants – such as educational attainment, smoking, diet and physical activity – play a big part in determining health status. Hence, stronger cross-sectoral policies, involving several ministries apart from the MoH are needed in Turkey.

Further difficult decisions lie ahead

The challenges discussed above suggest that there will be a big role for continuing stewardship by the MoH. There is a need to oversee completion of the HTP. There will be a continuing need for steering of the public primary and secondary providers, even if they become more autonomous. And there is a need for the MoH to take the lead in co-ordinating action on the wider public health agenda, involving other key ministries in the Turkish Government. It would be desirable for the MoH, the SSI, Treasury, the Ministry of Finance and the State Planning Office to continually monitor spending and revenues and to confer to assure sustainability and value for money.

Health system reform is a perpetual process. At this early stage in its implementation, Turkey appears to be one of the few middle-income countries to be implementing a "big bang" reform effectively. The HTP represents both an important improvement in Turkey's social welfare system and a "good practice" example for other countries struggling with the

Box 4.2. **Summary of key suggestions**

- Maintain a hard cap on *total* public spending on health care by the SSI
- Implement co-payments for visits to hospital outpatient departments without a referral
- Pursue further reductions in pharmaceutical prices and implement rational drug prescribing
- Control entry to the medical profession in the medium to long term after the expansion in physician supply, needed currently
- Continue with implementation of the HTP in the next five years
  - ❖ Continue to roll out family practitioner services
  - ❖ Continue to develop and co-ordinate community public health services alongside the family medicine service
  - ❖ Complete transfer of purchasing of hospital and primary health-care services to the SSI when management capacity is appropriate
  - ❖ Complete the DRG and bundled outpatient payment systems and develop new systems to transfer risk to providers based on managed care principles
  - ❖ Reform the performance management system to support DRG payment and to put more emphasis on efficiency and cost effectiveness
  - ❖ Continue with granting more autonomy to hospitals with appropriate management capacity
  - ❖ Invest in stronger IT systems and data for decision making
  - ❖ Develop capacity to undertake health technology assessment and to evaluate and monitor health reforms
  - ❖ Enhance the number and role of nurses in Turkey
- Take action on the supply side to support the new health system in improving geographical equity in access – possibly informed by weighted-capitation targets for regions
- Increase registration with, and payment of, contributions to UHI and carefully monitor solvency
- Address wider public health issues across ministries
- Continue to develop the stewardship capacity of the MoH

same issues. Yet the ultimate success of the program, including its sustainability, will very much depend on the difficult policy and implementation decisions that the Turkish authorities are still in the process of addressing. International experience suggests that the right choice of policies and their effective implementation will be required to ensure the financial sustainability of the health system in the long-term and continuing improvement in the health status and well-being of the Turkish people.

Notes

1. Few studies define what is meant by "successes", contain rigorous evaluations, have enough details of the health system to be able to address the full range of complex health and key cross-sectoral interactions affecting outcomes, and many often lack critical underlying data on health outcomes, costs, and financial protection.
2. Gottret and Schieber (2006) and Gottret *et al.* (2008). An OECD perspective can be found in OECD (2004a) and OECD (2004b). The latter contains a chapter by Docteur and Oxley on "Health System Reform: Lessons from Experience").
3. Gottret and Schieber (2006), Chapter 9, Gottret *et al.* (2008), Chapter 5.
4. The World Bank, in collaboration with the Government of Turkey, will be undertaking a major study on public health in Turkey in 2008/09.
5. Turkey's revenue to GDP ratio is below the levels of other comparable upper middle income countries. See George Schieber, "Overview of Health Financing", presentation made at the Senior Policy Seminar, Ankara, Turkey, 29 May 2008.
6. See International Monetary Fund (2008) and World Bank (2006a) for discussions of the overall expenditure and revenue situations in Turkey as well as the potential fiscal space pressure, in part engendered by increases in government spending on health.
7. Acknowledgement is due to William Hsiao, "Enrolling Informal Sector Workers and the Poor", presentation made at the Senior Policy Seminar, Ankara, Turkey, 29 May 2008.
8. Certain policies that may differentially affect university hospital efficiency include: the ability of full-time university faculty to have private practices inside and outside the hospital, full freedom of choice of patients to self-refer to any level of hospital, the performance standards used in university hospitals; and current funding modalities for medical education and medical research.
9. Department of Family Medicine, May 2008. The number may be somewhat higher if services provided outside the office and preventive health-care services are also included.
10. In the case of what might be called more "modern" epidemics, such as the epidemic of obesity and its many adverse health consequences, including diabetes and cardio-vascular disease, there is not yet a good body of evidence on what interventions are cost-effective. The OECD is currently reviewing the economics of prevention, with a special focus on chronic diseases related to poor diets and lack of physical activity, and a report is planned for the end of 2008. Among other things, this will review evidence on the cost-effectiveness of interventions to tackle poor diets and lack of physical activity. It will also contain a review of policies in OECD countries on these issues.
11. A fairly long time horizon would be needed to avoid forcing losing areas to cut services in absolute terms, which would be politically very difficult to enforce, and to allow gaining areas to put additional resources to productive use, which may involve adjusting human and physical capacity. Indeed, Ministry of Health action on the supply-side may be needed to complement UHI policies on the demand side to bring spending into line with targets.
12. "Benchmark" or "yardstick" competition refers to a process in which, typically, a dominant purchaser enters into negotiation with providers about improving their contractual performance in terms of costs, volume or outcomes, on the basis of suitable performance indicators, or benchmarks, which are designed to be comparable across providers. Such indirect competition can be contrasted with direct, market competition, typically driven by many purchasers choosing between providers – although such market competition might also be informed by suitable performance indicators.
13. The OECD is carrying out a review of the application of IT in Health and will be publishing a report by the end of 2008.

ISBN 978-92-64-05108-9
OECD Reviews of Health Systems
Turkey

References

Akdağ, R. (2007a), *The Progress So Far: Turkey Health Transformation Programme,* Ministry of Health, Ankara.

Akdağ, R. (2007b), *The Presentation of the Ministry of Health's 2008 Financial Year Budget to TBMM Plan and Budget Commission*, 19 October, Ankara.

Akdağ, R. (2008), *Progress Report 2008 Health Transformation Programme*, Ministry of Health, Ankara.

Aran, M. and J. Hentschel (forthcoming), *Household Level Health Expenditures and Health Insurance Coverage of the Poor in Turkey,* World Bank, Washington DC.

Aydin, S. (2006), "Reorienting and Restructuring the Ministry of Health for Effective Stewardship: Turkish Plans and Implementation Challenges", Ministry of Health Presentation, Istanbul.

Bostan, S. *et al.* (2007), "Patient (Customer) Expectations in Hospitals", *Health Policy*, Vol. 82, pp. 62-70.

Büken, N.O. and E. Büken (2004), "Emerging Health Sector Problems Affecting Patient Rights in Turkey", *Nursing Ethics*, Vol. 11, No. 6, pp. 610-624.

Car, J. *et al.* (2008), "The Impact of eHealth on the Quality and Safety of Healthcare: A Systematic Overview and Synthesis of the Literature", Report for the NHS Connecting for Health Evaluation Programme.

Celik Y. and A. Seiter (2008), "The Pharmaceutical Sector in Turkey", Draft report, International Bank for Reconstruction and Development, World Bank, Washington DC.

Chakraborty, S. (2007), "Modelling the Health Expenditure Implications of the New Budget Law (SUT)", World Bank internal document prepared for SSI Actuarial Analysis, Ankara.

Cutler, D.M., A.S. Deaton and A. Lleras-Muney (2006), "The Determinants of Mortality", National Bureau of Economic Research Working Paper No. 11963.

Dagdeviren, N. and Z. Akturk (2004), "An Evaluation of Patient Satisfaction in Turkey with the EUROPEP Instrument", *Yonsei Medical Journal*, Vol. 45, pp. 23-28.

Department of Health, England (2005), *Resource Allocation: Weighted Capitation Formula, Fifth Edition www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4112065*.

Ergin, F. *et al.* (2007), "Nutritional Status and Risk Factors of Chronic Malnutrition in Children under Five Years in Aydin, a Western City of Turkey", *The Turkish Journal of Pediatrics*, Vol. 49, pp. 283-289.

Ersoy, E., S. Kuvuncubasi, Y. Ozcan and J. Harris (1997), "Technical Efficiencies of Turkish Hospitals", DEA Approach, *Journal of Medical Systems*, Vol. 21, No. 2.

European Parliament (2006), *General Overview of the Public Health Sector in Turkey in 2006*, European Parliament, Strasbourg, France.

Evans *et al.* (2006), "Effect of Implementation of an Enterprise-wide HER on Productivity in the VHA", *Health Economics Policy and Law*, Vol. 1, pp. 163-169.

Feinstein, L. *et al.* (2006), "What are the Effects of Education on Health?", Chapter 4 in *Measuring the Effects of Education on Health and Civic Engagement: Proceedings of the Copenhagen Symposium*, OECD, Paris.

Garrido, T. *et al.* (2005), "Effect of EHRs in Ambulatory Care", *BMJ*, Vol. 330, No. 7491, pp. 581-585.

Gottret, P. and G. Schieber (2006), *Health Financing Revisited*, World Bank, Washington, DC.

Gottret, P., G. Schieber and H. Waters (2008), *Good Practices in Health Financing: Lessons from Reforms in Low and Middle-Income Countries*, World Bank, Washington, DC.

Grol, R. *et al.* (2000), "Patients in Europe Evaluate General Practice Care: An International Comparison", *British Journal of General Practice*, Vol. 50, pp. 882-887.

Heller, P. (2005), "Understanding Fiscal Space", IMF Policy Discussion Paper PDP/05/4, International Monetary Fund, Washington, DC.

Hsiao, W. (2007), "Why is a Systematic View of Health Financing Necessary", *Health Affairs*, pp. 950-961, July/August.

Hurst, J. (2002), "Performance Measurement and Improvement in OECD Health Systems: Overview of Issues and Challenges", *Measuring Up: Improving Health System Performance in OECD Countries*, OECD, Paris.

International Monetary Fund (2007), *Turkey: Improving the Efficiency and Effectiveness of Government Health Expenditure*, Washington, D.C.

International Monetary Fund (2008), "Turkey: Seventh Review and Inflation Consultation under the Stand-by Agreement and Request for Waiver of Non-observance of Performance Criteria – Staff Report", Staff Supplement: Press Release on the Executive Board Discussion and Statement by the Executive Director for Turkey, IMF Country Report No. 08/272, Washington, DC.

Jamison, D. (2006), "Investing in Health", in D. Jamison *et al.* (eds.), *Disease Control Priorities in Developing Countries Second Edition,* World bank and Oxford University Press, Washington, D.C. and New York, pp. 3-34.

Joumard, I. *et al.* (2008), "Health Status Determinants: Lifestyle, Environment, Health-care Resources and Efficiency", OECD Economics Department Working Papers No. 627, OECD, Paris.

Ke Xu, *et al.* (2007), "Protecting Households from Catastrophic Health Spending", *Health Affairs,* pp. 972-983, July/August.

Kozan, O. *et al.* (2007), "Prevalence of the Metabolic Syndrome among Turkish Adults", *European Journal of Clinical Nutrition,* Vol. 61, pp. 548-553.

Kuzu, N. *et al.* (2006), "Patients' Awareness of their Rights in a Developing Country", *Public Health*, Vol. 120, pp. 290-296.

Langenbrunner, J., C. Cashin, and S. O'Dougherty (forthcoming), *How to do It: Manuals for Designing and Implementing a Health Care Provider Payment System,* World Bank, Washington, D.C.

Mays, J. *et al.* (forthcoming), *UHI Actuarial Analysis: Projecting Health Expenditure Growth under UHI: Cost Pressure and Cost Management Scenario*, World Bank, Washington, D.C.

Miners, A.H. *et al.* (2005), "Comparing Estimates of Cost Effectiveness Submitted to the National Institute for Clinical Excellence (NICE) by Different Organisations: Retrospective Study", *BMJ,* Vol. 330, No. 7482.

Ministry of Health (1993), *National Health Policy*, Ministry of Health, Ankara.

Ministry of Health (2002a), "National Health Accounts, 1999-2000", School of Public Health, Ministry of Health, Ankara, Turkey.

Ministry of Health (2002b), *Statistical Yearbook*, Directorate General of Curative Services, Ministry of Health, Ankara, Turkey.

Ministry of Health (2004), "Final Report on National Burden of Disease and Cost-Effectiveness Study," School of Public Health, Ankara.

Ministry of Health (2006), *Family Medicine in Turkey*, Ankara.

Ministry of Health (2007a), *The Progress so Far: Turkey Health Transformation Programme,* November 2002-June 2007, Turkey.

Ministry of Health (2007b), *Health at a Glance, Turkey,* Refik Saydam Hygiene Center, School of Public Health, Ankara.

Ministry of Health (2008a), *Regulation on Private Outpatient Diagnostic and Treatment Institutions*, Ankara.

Ministry of Health (2008b), *The Performance-Based Supplementary Payment System*, Ankara.

Mollahaliloğlu, S. *et al.* (2006), *Turkey National Health Accounts: Household Health Expenditures, 2002-2003*, Ankara.

Mollahaliloğlu, S. *et al.* (2007a), *Human Resources in Health and Policy Dialogue Workshop*, Ministry of Health, Ankara.

Mollahaliloğlu, S. *et al.* (2007b), *Analysis of Current Situation for Human Resources in Health Sector*, Ministry of Health, Ankara.

OECD (2004a), "SHA Based Health Accounts in 13 OECD Countries: Country Studies – Turkey: National Health Accounts", OECD Health Technical Papers, No. 13, OECD, Paris.

OECD (2004b), *Towards High-performing Health Systems*, OECD, Paris.

OECD (2004c), *Towards High-performing Health Systems: Policy Studies*, OECD, Paris.

OECD (2005), *Health at a Glance: OECD Indicators*, OECD, Paris.

OECD (2006a), "Health Care Quality Indicators Project: Initial Indicators Report", OECD Health Working Papers No. 22, OECD, Paris.

OECD (2006b), "Projecting OECD Health and Long-Term Care Expenditures: What are the Main Drivers?", OECD Economics Department Working Paper No. 477, OECD, Paris.

OECD (2006c), "The Supply of Physician Services in OECD countries", OECD Health Working Paper No. 21, OECD, Paris.

OECD (2007a), *Health at a Glance 2007: OECD Indicators*, OECD, Paris.

OECD (2007b), *Education at a Glance*, OECD, Paris.

OECD (2008a), "Declaring Work or Staying Underground: Informal Employment in Seven OECD Countries", Chapter 2, *OECD Employment Outlook*, OECD, Paris.

OECD (2008b), *OECD Economic Survey – Turkey*, OECD, Paris.

Ozsahin, A.K. *et al.* (2004), "Prevalence of the Metabolic Syndrome in an Turkish Adult Population", *Diabet. Nutr. Metab.,* Vol. 17, pp. 230-234.

Republic of Turkey (2006), *Law 5502: Law on Administrative Unification of the Social Security System*, Ankara.

Republic of Turkey (2007), *Pre-Accession Economic Programme*, Ankara, December.

Republic of Turkey (2008), *Law 5510: Law on Social Security and Universal Health Insurance*, Ankara.

Savas, S., O. Karahan and R. Saka Omer (2002), *Health Care Systems in Transition, Turkey*, European Observatory on Health Systems, Brussels.

Schell, C.O. *et al.* (2007), "Socioeconomic Determinants of Infant Mortality: A Worldwide Study of 152 Low-, Middle-, and High-income Countries", *Scandanavian Journal of Public Health,* Vol. 35, pp. 288-297.

Sülkü, S.N. (2008), "The Factors that Increase the Share of Pharmaceutical Expenditure in Total Health Expenditure", Strategy Development Headship, Working Paper, Ministry of Health of Turkey, Ankara.

Sülkü, S.N. and D.M. Bernard (2008), "Financial Burden of Health Expenses: Turkey, 2002-2003 Period", Strategy Development Headship, Working Paper, Ministry of Health of Turkey, Ankara.

Tapay, N. and F. Colombo (2004), "Private Health Insurance in OECD Countries: The Benefits and Costs for Individuals and Health Systems", Chapter 6 in *Towards High Performing Health Systems: Policy Studies*, OECD, Paris.

Tatar M., S.H. Ozgen, P. Belli and P. Berman (2007), "Informal Payments in the Health Sector: A Case Study from Turkey", *Health Affairs*, Vol. 26, No. 4, July/August.

Tengilimoglu, D. *et al.* (2001), "Measurement of Patient Satisfaction in a Public Hospital in Ankara", *Health Services Management Research,* Vol. 14, pp. 27-35.

Turkish citizenstat (2008), "Education Statistics", accessed 4 March 2008, *www.Turkish citizenstat.gov.tr/PreIstatistikTablo.do?istab_id=135*.

United Kingdom, National Audit Office (2008), *The National Programme for IT in the NHS: Progress since 2006,www.nao.org.uk/publications/nao_reports/07-08/0708484es.pdf*.

Weatherall, D., B. Greenwood, H. Leng and P. Wasi (2006), "Science and Technology for Disease Control: Past, Present, and Future", in D. Jamison *et al.* (eds.), *Disease Control Priorities in Developing Countries Second Edition,* World bank and Oxford University Press, Washington, D.C. and New York, pp. 119-138.

World Bank (2001), *Turkey: Public Expenditure and Institutional Review: Reforming Budgetary Institutions for Effective Government*, International Bank for Reconstruction and Development, World Bank, Washington, D.C.

World Bank (2003), *Turkey: Reforming the Health Sector for Improved Access and Efficiency*, International Bank for Reconstruction and Development, Vol. 1 and 2, World Bank, Washington DC.

World Bank (2006a), *Turkey: Public Expenditure Review*, International Bank for Reconstruction and Development, World Bank, Washington DC.

World Bank (2006b), "Report on Health Expenditures in Turkey (May)", World Bank internal document, Ankara.

World Bank (2008), *Good Practices in Health Financing*, Washington DC.

World Health Organisation, UNICEF, UNFPA, and the World Bank (2008), *Maternal Mortality in 2005*, World Health Organisation, Geneva.

OECD PUBLICATIONS, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(81 2008 15 1 P) ISBN 978-92-64-05108-9 – No. 56397 2008